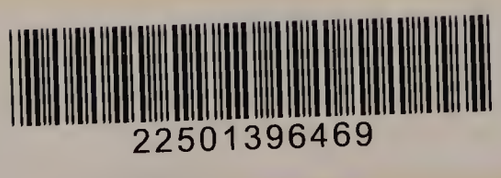
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LITERATURE, CRITICISM, AND NEWS.

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ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture I.—Personal Identity.

Questions respecting persons about whose identity doubts are entertained not unfrequently arise, both in civil and in criminal proceedings in courts of law. In such cases the inquiry comes to be whether an individual is the person supposed by the court, or who he is asserted to be by others, or who he himself alleges that he is.

The same inquiry also arises, at times, when *the dead body* of an unknown individual is found under any unusual circumstances; when *portions of the body*, or the *skeleton* in whole or in part, come to be discovered in a suspicious situation; where a corpse has been purposely distributed in order to throw light on an alleged murder or violent death at a period more or less remote. Here the point to be discovered is, who the person was to whom the remains belonged.

The subject of personal identity thus divides itself into two parts—viz., the identification of the unknown person *during life*, and, secondly, *after death*. We shall therefore treat of these two points in the order as here stated. 1. *Identity in the living.*—The occasions on which the medical practitioner is called upon to take part in such investigations regarding living persons are those in which the proofs rest almost entirely or altogether on such physiological facts as he alone can supply. Otherwise, as happens in the majority of instances of confusion of persons, or suspicious claims, the relations and connexions of the party are examined; or, failing these, witnesses who have been personally acquainted with the individual; while, as in the late famous Tichborne Baronetcy case, in addition the claimant's memory may be tested regarding facts and occurrences which none but the real party could be expected to bring out under a rigorous search.

In a few instances, however, this proof fails—as when a new-born infant, or a child soon after its birth, has been sent away or abstracted from its parents or friends, and has been returned or recovered after several years; or in the case of persons who after long absence have come back to their native country, so changed by the progress of years, their mode of life, or the effects of sickness or other sufferings, as not to be recognisable by their former acquaintances. In these and other similar circumstances attended with unusual difficulties the medical practitioner is called in to assist in proving the identity on account of his superior means of deciding on the effects of time and accidents of life in changing the personal appearance, and as being the best fitted to detect the existence of corporal defects, marks upon the skin, traces of former wounds, diseases, etc.

Again, a question has occasionally arisen in criminal prosecutions whether a certain individual be actually the person who committed the offence with which he stands charged; or, once more, whether, when a prisoner after conviction escapes and is retaken, he is the same person who was convicted. In this case the time which has elapsed since the parties were previously seen is usually too short to allow for those changes to have occurred which age, diseases, or prolonged sufferings are capable of producing in the personal appearance. These are effected by change of dress, shaving the head, altering the style of adjustment of the hair, allowing the whiskers and beard to grow, or removing them when previously worn, or by varying the previous carriage and deportment. With this, however, the medical jurist has nothing to do. Another mode of disguise it behoves us to notice: we mean the changing the colour of the hair, as this will fall to be investigated by him. The attention of the profession to this subject was first prominently called for by the occurrence in Paris of the following case:—

A man named Benoit was suspected of having committed a murder. Certain witnesses deposed to having seen him in Paris at two o'clock in the afternoon of the day in question with *black* hair, and others to having seen him at Versailles with *fair* hair at five or six o'clock the same evening. The man's hair was naturally *jet-black* (and it does not appear that he wore a wig). The question in consequence proposed to Orfila by the law authorities was *whether black hair could be dyed fair*. One of the first hairdressers of Paris who was consulted declared that it was *impossible;* but M. Orfila stated that it was not only *possible*, but that it had been done twenty-six years before by Vanguelin by means of chlorine. (We shall see presently that this decision of Orfila's has been called in question.) We notice—

1st. The means of *darkening* the hair. There are various methods in use for altering the colour of the human hair. In general, the object is to change red or sandy hair to a darker hue—*i.e.*, *brown* or *black*.

Preparations of *lead*, *silver*, or *bismuth* are employed for the purpose, *lime* or *ammonia* being first used to remove the fatty matter of the hair. A very common agent is a mixture or compound of *lime* and *oxide of lead* in equal parts, or three parts of litharge to two of lime; the litharge being sometimes replaced by the *carbonate* of lead. The mixture, made into a paste with hot water, is applied to the hair for four or five hours. The lime combines with the fatty matter of the hair, while the lead forms with the sulphur of the hair a black sulphide of lead.(a)

The use of bismuth—at one time employed in place of lead—appears latterly to have been abandoned, if we may trust the investigations of Chevallier, who recently studied the subject. This author mentions that in Paris the hairdressers and perfumers who keep articles of this sort for sale trust to the use of litharge or *nitrate of silver*, which last they dissolve in about nine parts of water, and vend under the names of Parisian, Egyptian, Cyprian, or ebony water, with a solution of the same strength of sulphide of potassium to be first used to remove the grease previously to the application of the silver salt.

It should be known that the above preparations for darkening the hair are not unfrequently attended with dangerous consequences to the individual employing them, such as erysipelas, excoriation of the skin, inflammatory swellings of the face, cerebral disturbances, and even permanent insanity.(b) In one instance in which severe effects followed the dyeing of the hair and beard, the powder which had been made use of for this purpose was found to contain one part of quicklime, three of red-lead, and one of carbonate of iron.(c)

But in the case of dyeing the hair of a dark colour, "as it is not difficult to attain the desired end, so neither is it difficult, by means of *close inspection*, or by *chemical reagents*, to detect what has been done. The metallic sulphides thus formed can be decomposed, and the metals extracted for testing; the *lead* and *bismuth* by hydrochloric acid, and the *silver* in the form of chloride by chlorine. When, on the other hand, the object is to render *dark* hair of a *lighter* colour, the end is attained by the employment of *chlorine*—first washing the hair with ammonia to remove its greasiness. One part of strong liquid chlorine, diluted with four parts of water, will change in the course of two hours, according to Orfila, *black* hair to *dark chesnut*. By successive immersions in a solution of the same strength it will be brought to a *bright chesnut*. If the same hair be brought to a *deep blonde* colour, it may ultimately be brought to a *bright yellow*, or a *white* with a *yellowish tinge*."

Devergie differs from Orfila thus far, that he has never been able in his trials to produce the full effect of *whitening* in less than twelve, fifteen, or twenty hours; further, he has noticed that chlorine does not destroy the colour very uniformly.(d)

This last circumstance might enable us to decide, in most cases, whether or not the hair had been artificially changed, independently of chemical experiments. Besides, as the hair grows the new growth will be of the previous colour.

Moreover, it should be borne in mind that, as persons dyeing their hair to avoid recognition would scarcely think of going further than to alter that of the head and whiskers, by comparing the hair of these parts with that of the pubis and other parts of the trunk, a ready means of detecting the change presents itself to the examiner.

In cases of disputed identity, the question has arisen in legal medicine as to the *possibility of the disappearance of a scar*.

We believe that, as a general rule, all scars resulting from wounds and from cutaneous diseases, which involve any loss of substance, *are indelible*, the only exception which can be made

(a) *Medical Gazette*, vol. xix. page 215; vol. xviii. page 312.
(b) *Annales d'Hygiène*, January, 1860, pages 119-22.
(c) *Ibid.*, p. 121.
(d) *Medical Gazette*, vol. xix. page 215.

being in regard to trifling punctured wounds, where but little violence has been done to the skin,(e) and where there has been no loss of substance. Considerable light has been thrown on this last class of alterations on the surface of the body by some researches on the Continent a few years ago.

A body was found at Berlin, in 1856, so disfigured and mutilated that its identification could not be made out satisfactorily, though the probability was that it was that of Gottlieb Ebermann, a cattle dealer. But though this individual was known to have been scarified in the operation of cupping eight or nine years before his death, and to have had the two initial letters of his name tattooed into one of his forearms, no trace of *either* could be detected on the body examined with every care by magistrates and medical men.

This and some subsequent occurrences led to investigations by Caspar in Germany, and Hutin and Tardieu in France, as to the possibility of *effacing* such marks once made; the common belief being that they are indelible. The result arrived at by these inquirers is, that the popular opinion is in the general case correct, yet that exceptions occasionally occur. Thus, in thirty-seven persons examined by Caspar, the marks had become, in time, effaced in six; in 509 persons examined by Hutin, they had disappeared in forty-seven; in seventy-six inspected by Tardieu the marks had become effaced in three—that is, in about 9 per cent. of the whole. It has also been found that the substance employed by the tattooer influences the permanence or otherwise of the markings. *Vermilion* is the least permanent colour; *China-ink*, which is oftener employed, though not absolutely indelible, rarely disappears. But what is more to our purpose to remark is, that it has been shown that tattooing, besides being occasionally known to disappear naturally, may be got rid of by artificial means in no lengthened period, such as the application of blisters, tartar-emetic ointment, or other modes of producing suppuration of the skin. A criminal in one of the French prisons, according to Tardieu, got rid of extensive tattooed marks on his body in six days by the use of the following means, a fact which was verified in another case by the reporter. He first applied to the parts a paste of pure acetic acid and axunge; they were then rubbed with potash; and, lastly, with dilute hydrochloric acid. In repeating the experiment, Tardieu left the paste on the tattooed part for twenty-four hours, by which time the cuticle was raised and the true skin reddened; after this, the part was rubbed five or six times in the course of the second day with the potash, which occasioned but very little pain. The day after, a thin but closely adherent crust was left at the place, which fell off on the seventh day, leaving the marking only partially obliterated. This, however, was immediately succeeded by a new crust, which did not drop off for fourteen days more, leaving a superficial smooth scar, without the least vestige of the tattooing.(f)

From the researches thus undertaken some very curious disclosures have resulted, and it has been shown that, in the lower ranks, particular marks are chosen by particular trades, which might be of assistance occasionally in establishing a doubtful case of identity.

I may add that Caspar has found that the marks left by scarification, or cupping, if not deep, may disappear in from two to three years.(g)

I have directed your attention particularly to these facts and conclusions, as they seem to have been overlooked in the famous Tichborne trial, where the professional evidence was confined to surgeons and physicians evidently unacquainted with forensic medicine, who were called to speak on the permanence or possible disappearance of tattooing and the cicatrices of wounds in venesection and cupping.

In a case of rape, tried here in 1872, evidence in defence was brought forward to show that, in the female, soft chancres could not have existed after the period of intercourse, as no mark of their previous presence was visible about the genitals of the prisoner six weeks afterwards. My testimony at the precognition was, that I and another physician had seen them at the time alleged. I am now the more confirmed in the correctness of this opinion, from the fact that, in a subsequent case, in private practice, where several such chancres were met with and treated by me, all trace of them was found to have disappeared six weeks subsequently.

(To be continued).

(e) Wharton and Stillé, page 367.
(f) *Annales d'Hygiène*, vol. iii. No. 6, pages 171-913 *pass.*
(g) *Ibid.*, page 177.

CLINICAL LECTURE
ON A FATAL CASE OF PERITONITIS EXCITED BY THE ESCAPE OF HYDATIDS FROM THE LIVER.

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Medicine in King's College, Physician to King's College Hospital.

GENTLEMEN,—A case of unusual interest ended fatally the day before yesterday. We are presently about to make a post-mortem examination of the body, but before doing so I propose to give you a brief history of the disease, condensed from the report of my clinical clerk Mr. Tirard, and to state to you my opinion as to its probable nature and cause.

The case is that of Kate L., aged twenty-seven, married, but without children, a book-folder, who was admitted into Twining ward on October 19. She stated that she had been in good health until five weeks before her admission, when she was seized with pain in the pit of the stomach; she had frequent retching, the urine became high-coloured like coffee, and her eyes and skin were yellow. The very severe pain and vomiting had ceased some time before her admission, but she remained very weak and ill, with great tenderness of the belly. When admitted there was pain and extreme tenderness over the whole front of the abdomen, the abdominal walls were tense, and palpation gave the impression of the intestines and omentum being matted together. The eyes and skin were still yellow, but the urine was free from bile and of normal character. The temperature was 102·4° Fahr., the pulse rapid and feeble, but its exact frequency not noted. The symptoms clearly indicated peritonitis, and for this I prescribed fomentations, and a grain of opium in a pill three times a day.

Under this treatment the pain and tenderness gradually subsided, and the improvement was so great that at the beginning of November it seemed probable that she might recover. Meanwhile, the jaundiced state of the skin and eyes had quite passed away.

On November 5 she complained of a "bearing-down" pain in the abdomen. On the 8th the pains had recurred. On the 10th the urine was tinged with bile, and the skin and eyes were again becoming yellow. On the 11th the pain was more severe, and attended with vomiting; urine dark-coloured; jaundice increased; great tenderness over the epigastrium. Pulse 170, temperature 105°. The opiate treatment was continued. On the 12th the symptoms continued unabated; delirium had come on. Temperature 101·2°, pulse 160. On the 13th the vomiting had been frequent during the night; temperature 103·2°, pulse 148; countenance anxious. She died at 2 p.m.

Now, what is the nature of this disease? We shall presently get a decisive answer to this question; meanwhile I hope to excite your interest by telling you what I expect to find. It is quite certain that peritonitis was the immediate cause of death; and I think it probable that this intense peritonitis was excited by the escape of some irritant into the cavity of the peritoneum. Beyond this we cannot go with certainty; but my theory is that the attack of pain, with vomiting, high-coloured urine, and jaundice, which occurred at the commencement of her illness, was caused by the passage of a gall-stone into the common duct. Then I think it probable that the gall-stone got impacted, and, causing ulceration of the duct, escaped together with some bile into the cavity of the peritoneum, and excited peritonitis. The further escape of bile would be prevented by the effusion of lymph and resulting adhesions to the neighbouring parts. The peritonitis was subsiding, and all was going on well until, as I suppose, about a week before her death another gall-stone passed into the common duct, which it obstructed, causing a return of the pain, vomiting of bile-tinged urine, and jaundice, and then followed its predecessor into the cavity of the belly, thus exciting the fatal increase of the peritonitis. We will now go to the post-mortem theatre.

Inspection, by Dr. Pritchard, forty hours after death.—On opening the abdomen, the viscera were found firmly matted together by recent lymph, so that their separation was effected with great difficulty. Pus and purulent lymph were found in many places, there being a large collection in the left iliac region. Amongst the puriform effusion near the under surface of the liver was found a globular hydatid about the size

of a marble. The liver weighed eighty-three ounces. On its surface it appeared healthy, but in the back part of the left lobe there was a hydatid cyst about three inches and a half in diameter, containing numerous secondary hydatids of various sizes. The cyst communicated with the hepatic and the common duct, both of which were dilated to the size of the little finger, and a catheter readily passed from the opening of the duct in the duodenum into the hydatid cyst. When the cyst was pressed, the hydatids passed one after another along the duct into the duodenum. The cystic duct was nearly obliterated, and the gall-bladder contained only mucus. There had been no ulceration or rupture of the bile-duct, but it appeared that the wall of the cyst had given way on its under surface by a small opening which led into a honeycombed mass of lymph and adhesions.

Concluding Remarks.—You see, then, gentlemen, that I was right in my diagnosis of peritonitis, and I was also right in my conclusion that the peritonitis was excited by the escape of an irritant substance into the cavity of the peritoneum consequent on plugging of the bile-duct; but I was wrong in supposing that a gall-stone had been the cause of the block. It is evident, from the dilated condition of the hepatic and common duct, that numbers of hydatids had passed through these canals. On two occasions—when the pain, sickness, and jaundice first occurred, and again a few days before her death—it is probable that a hydatid of larger size caused a temporary block of the duct, and one result of this was distension of the cyst by accumulating secretions, and rupture of the cyst with a partial escape of its contents into the cavity of the peritoneum. The ruptured aperture, which was temporarily closed by lymph after the first escape, was reopened when the second block and resulting distension occurred. Thus the symptoms are completely explained. The stools were repeatedly examined after her admission into the hospital, but nothing decisive was found. The position of the cyst at the back of the liver was such that it could not be felt during life. The only evidence that might have led to the discovery of the cause of the symptoms so closely resembling those which result from the passage of gall-stones, would have been the detection of one or more hydatids in the stools. If any of you should, hereafter, meet with a similar case, your recollection of this one may assist you in your diagnosis; and, of course, you will not omit to make a careful examination of all the matters discharged by vomiting and by stool.

LECTURES ON INJURIES TO THE HEAD.

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital; Surgeon to Moorfields Ophthalmic Hospital and the Hospital for Skin Diseases.

(*Continued from page* 259. *vol.* ii. 1875.)

Lecture VI.

ON CONCUSSION OR SHAKE OF BRAIN.

The element of concussion or shake of the cerebral mass enters more or less into almost every case of severe injury to the head. In some—those, for instance, of punctured fractures, of severe scalp lacerations inflicted whilst the head remained at rest, and a few others—the amount of shaking may have been so slight as to be of no consequence; but these are very exceptional. In nearly all the cases which come under our observation in practice there is the history of symptoms which proved that the brain had felt the influence, in greater or less degree, of concussion. When the skull and its contents are suddenly thrown, whether by a blow or fall, into a state of violent vibration, complicated lesions usually ensue. The bony case cracks at one or more places, and the soft substance of its contained organ becomes bruised or lacerated. Investigations in the deadhouse show that it is very rare for the bone to escape fissure, and that in thin and brittle skulls the extent of fracture may often be much greater than the amount of violence might have led us to expect. They show, further, that only in a very small proportion of cases do these fissures of the cranial bones involve laceration of the lining membrane (dura mater), or, indeed, any perceptible amount of displacement of the fractured portions themselves. We are therefore compelled to regard them, in the majority of instances, as mere facts in proof of the violence of the vibrations, and not as causes of brain symptoms. It is from the vibrations themselves that the brain suffers. The effect of a blow on any part of the head would be to cause the brain, which is more or less loosely hung in its cavity, to recede from the part struck, and dash itself against the opposite wall. From the opposite side a counter-stroke much diminished in force would be received, and so on, backwards and forwards, until the parts came again to a state of rest. The effect of these vibrations upon the cerebral structures would be modified by the irregularities presented by the interior of the skull and by the strong membranous supports which partially divide its cavity.

The influence of these vibrations on the cerebral mass may be traced after death in the form of contusions of its substance where it has struck the parietes, and lacerations of its nerve-fibres or its bloodvessels where they may have been put on stretch. Both in the case of the contusion and the laceration there will generally be hæmorrhage at the damaged part in proportion to the degree of injury.

If we know the spot on which the violence was inflicted, we can predicate that the chief bruise will be found at the part opposite to it, and the one next in severity at the seat of primary injury. Respecting the minor ones, we can, however, give but little account. Lacerations of brain-structure or extravasations of blood may be found in almost any part of the brain-substance. Minute clots, for instance, are often found at a distance from the surface, and in parts where there is not the slightest evidence of direct contusion. These clots, since they must necessarily result from the rupture of vessels by stretching, are of the utmost significance, since they prove that the brain in all its parts, central as well as superficial, has felt the mechanical effects of the shaking it has received. If, here and there, certain bloodvessels or nerve-fibres have been so stretched that they have actually given way (which is proved), it follows that many others must have been put on the stretch in minor degrees. That such stretching should temporarily disturb the functions of nerve-tubes and of nerve-cells, even in cases in which no visible lesion has occurred, is easily comprehensible. Let us fully realise all that this involves, before we discuss the question as to whether simple concussion without perceptible lesion may prove fatal. I believe there is not on record any satisfactory example of immediate death from simple concussion without any organic lesion. Several professing to be such are very incomplete in details, and may possibly have been instances of fractured spine. The principal lesions met with in fatal cases are the following:—

(*a.*) Laceration of brain-substance (medullary or cortical).
(*b.*) Tearing across of nerve-trunks within the skull.
(*c.*) Contusion of brain (usually superficial).
(*d.*) Contusion with ecchymosis in specks or in patches.
(*e.*) Extravasation of blood (from rupture of vessels without material contusion).

Yet it is probable that all these lesions are, in most cases, of importance rather as indications of the violence of the shake to the brain (concussion) than on account of the detriment they themselves cause to its functions. There can be no doubt that to shake violently a soft, pulpy substance, like that of the brain, is quite adequate to effect such changes in it as may greatly interfere with its functions. To this shake, and not to any minute structural lesions which may chance to be discovered, must we attribute most of the general symptoms of concussion—the concussion-shock, the sleep, the stupor, and the slow or irregular pulse. Special symptoms, such as paralysis or impairment of individual nerves, are probably connected, in the vast majority of instances, with appreciable local lesions, such as contusion of brain-substance, with ecchymosis, laceration of brain-substance, or limited extravasations. We may say, then, speaking in a wide sense, that *symmetrical* symptoms are due to the shake; the one-sided or unsymmetrical symptoms to local lesion. It may be asserted, further, that there are very few uncomplicated cases. In every case of injury to the head by violence, concussion, in greater or less degree, is one of the results, and, in the vast majority, the most important one. Many of the cases recorded under other heads, and especially under that of "fracture of the skull," ought to be spoken of as cases of "concussion," because the concussion was the important lesion, and the fracture of little consequence. In many cases of fracture of the base of the skull, also, the fracture is of importance rather as a measure of the severity of the concussion than on its own account. A mere linear fracture, without displacement and without rupture of the dura mater, as is often met with, would not in itself cause serious symptoms; its existence is proof, however, that a

violent concussion must have taken place. There is a child's riddle which I am often reminded of in the investigation of slight lesions consequent on injuries to the head. What is it that the coach goes with and comes with, which it cannot go without nor come without, but which is of no use to the coach? The answer is—Noise. Thus the slight structural lesions which we often find in connexion with fatal cases of concussion are, for the most part, the noise attending the shake. It is the shake of the whole brain-substance that kills, and these lesions prove how severe that shake has been. When we witness the immense destruction of brain-substance which often occurs in connexion with apoplexy, with chronic softening, with cerebral tumours, and which is yet consistent with the continuance of life, it is impossible to believe that a fissure of some part of the skull, which is unattended by displacement, in which the dura mater is not perceptibly bruised, and which is, indeed, discovered only by the most careful inspection, was the actual cause of death. In like manner, we cannot regard a few spots of ecchymosis into the surface of the brain-structure—none of them, perhaps, larger than pins' heads—as in themselves capable of inducing a fatal result. They are, rather, merely proof that the head has been most violently shaken—the noise which attended the shake, and which denoted its violence. In further proof of this are many cases in which patients, after injuries to the head which produced but mild direct symptoms, have died of intercurrent (and almost accidental) inflammation, and in which the autopsy has disclosed structural lesions of the kind alluded to, these lesions being in process of repair. If such lesions may be present when there have been no symptoms to denote them, and when death has occurred from other causes, it is fair to assume, in other cases when they are met with, that they have probably not been the cause of death.

My argument, then, is that concussion of the brain is a far more serious matter than is generally supposed, and that it is not unfrequently the real cause of death in cases which are registered under some other name—"Fracture of base of skull," "Contusion of brain," or the like. We include under the term "concussion" everything which we attribute to mere shaking of the brain-mass, which does not depend upon lesions which are appreciable after death.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF PARACENTESIS THORACIS AT ST. THOMAS'S AND VICTORIA-PARK HOSPITALS.

By THOMAS B. PEACOCK, M.D., F.R.C.P.,
Physician to those Hospitals.

On former occasions I have reported in the *Medical Times and Gazette*(a) various cases under my care in which the chest was tapped for accumulation of fluid in the pleural cavities. The following six cases have occurred since my last communication, and I now publish them as contributions to our knowledge of the result in such instances:—

Case 1.—*Empyema of Right Side—Paracentesis three times repeated—Cured.*

B. J. H., aged thirty-four, a marble mason, admitted into the Victoria-park Hospital on January 8, 1874, labouring under pleurisy of about three weeks' duration. Till the August previously he had enjoyed good health, and had been a strong man, and had never had any serious illness; and there was no history of phthisis in the family. In August he had a feverish attack, accompanied by cough and expectoration and pain in the chest, but he soon recovered, and continued well till December 28, when he again had a similar attack, and the symptoms continued up to the time of his admission into the hospital. He then had a hoarse voice, much difficulty of breathing, a frequent cough, especially troublesome at night, and expectorated a little tenacious and frothy sputum. He had not lost much flesh, and had never spat any blood. His pulse was quick (120), the breathing also accelerated (28), and he could only count to twenty with one breath. His complexion was sallow, and he was puffy-looking. On the right side of the chest the resonance on percussion was everywhere much impaired, and the vocal thrill was diminished. The respiratory sounds were also impaired, and of a somewhat bronchial character, and the liver could be felt in the abdomen about two inches below the edges of the ribs. The respiration and movement on the opposite side were exaggerated. It was evident that there was fluid in the right pleural cavity, combined, it was supposed, with some general congestion of the lung-tissue, but it was thought that the quantity was not large, and it was decided to attempt the absorption by blisters and iodide of potassium, etc.

On January 28 his condition was not much improved. He had considerable difficulty of breathing, and his cough and expectoration, though less, were still troublesome. His pulse and respiration were rapid, and he had a high temperature—102°. There was more marked dulness on percussion on the right side, especially low down, and the respiration was only feebly heard at the upper parts, and was attended with slight ægophony behind.

The treatment was, however, continued, and after another month had elapsed, or on February 24, the right side of the chest was everywhere dull on percussion, and the movement very slight, and though the vocal thrill was diminished, it was not entirely abolished in any part. The præcordial dulness was increased in extent in the lateral, but not in the vertical direction, and the apex of the heart could be felt to beat in the fifth interspace, about two inches below and to the left of the line of the nipple. The cardiac sounds were loudly conveyed over a large portion of the right side, and the liver protruded into the abdomen to a very low level. It was evident that there was increased effusion of fluid into the pleural cavity, but there was still supposed to be also some consolidation of the lung, and that the lung was in part attached to the side by adhesions. The general symptoms continued much as before, though he was certainly relieved and was less exhausted. Paracentesis was now performed by the Resident Medical Officer, Mr. G. C. Franklin, and thirty-one ounces and a half of a pale greenish-yellow thin fluid were removed.

The operation was attended by much relief: his cough became less, and he had no expectoration. His breathing was, however, still difficult and quick—36 to 40 in the minute; his pulse was 124, and the temperature 100·6°. The respiratory sounds were heard more distinctly, and over a larger area; the movement was more free, and the liver receded considerably into the chest.

On March 4 the right side of the chest was somewhat contracted at the upper part, and the movements continued very imperfect, but the dulness on percussion still existed over the side, and was entire below, and the vocal thrill was only feebly felt everywhere, especially in the lower parts. Respiration was more audible than before the operation, and especially towards the apex of the lung; and in the mammary and middle lateral region there was a peculiar metallic echo with the cough. The liver could still be felt below the ribs. His pulse had fallen to 100, and the respirations to 24.

On April 2, though his general condition had continued to improve, it was evident that the fluid had re-accumulated. He was, therefore, again tapped. Sixty-two ounces of fluid, similar in character to that before evacuated, were removed.

On April 8 it is reported that the condition of the chest was much improved. Though the side still sounded entirely dull below and in the lateral regions as he lay upon his back, there was considerably increased vocal thrill, and return of the respiratory sounds at the upper parts both before and behind and towards the spine; but the breathing was inaudible below and in the lateral regions. He was less troubled with cough and dyspnœa, and could, indeed, now count to twenty-two. There was, however, evidently some air in the pleura, which had doubtless entered during the operation, and was indicated by an obscure tympanitic resonance on percussion in the mammary region when he lay upon his back, and by a metallic echo with the cough, and by these signs changing when his position was altered.

May 1.—Though the improvement in his general condition had steadily progressed, the right pleural cavity had again become distended with fluid. The respiratory sounds were only to be heard at the infra-clavicular, axillary, and lower cervical regions, and to the left of the spine. The side was expanded, and very dull on percussion; the vocal fremitus was abolished, and the movement was very slight. The side was again tapped, fifty ounces of fluid being on this occasion removed, which had a specific gravity of 1020. The puncture was made in the sixth interspace, in the line of the

(a) See volumes for 1871 and 1873.

axilla. After the operation he coughed violently for some time, after which, however, his breathing became quiet, and he was altogether better.

On the 3rd there was very obvious diminution in the size of the right side of the chest, the contraction being most marked at the upper part in front, and the right shoulder had a decided drop. The movement was freer, the dulness was more limited to the lower parts and less decided, and the respiratory sounds were heard over a much larger area of the upper portion of the side. The vocal thrill was also felt over a larger space; but it was obvious that air had again entered into the cavity during the operation.

The following notes were taken on the 27th. The right side of the chest is very much contracted, and the movement is still very imperfect. The resonance on percussion is much improved at the upper part of the side, and the vocal thrill is also there distinct, but there is still entire dulness low down in the anterior lateral and posterior regions, with return of vocal thrill and respiration. He has decidedly improved in his general condition, and can now count to twenty-four in one breath.

He was presented "cured." Since this he has several times been to the hospital. He is well, and able to follow his usual occupation, but the side continues much contracted.

Case 2.—*Empyema of Left Side—Paracentesis—Relieved, but Fistulous Opening ensuing.*

E. E., aged three years and a half, admitted into the Victoria-park Hospital June 19, 1874. He had then been ill for about five weeks and a half, the symptoms having commenced with a feverish attack, which was supposed to have been suppressed scarlatina, though there did not appear to have ever been any eruption on the skin, desquamation, or dropsy. When admitted, the left side of the chest was very greatly expanded, and entirely dull on percussion, and no respiration was to be heard except high up and to the left of the spine; the heart was much displaced, beating on the right side of the lower end of the sternum. The child was very unhealthy-looking, much exhausted and emaciated, and with a large head and protruding forehead. The same day the left side of the chest was punctured by Mr. Franklin, the Resident Medical Officer; the puncture being made at the most prominent part of the side, below the left nipple, in the fourth interspace, and sixteen ounces of inodorous pus were removed. After the operation the expansion of the side was much lessened, and the heart returned to near its normal position. A pledget of lint was left in the opening. After the operation the child was somewhat better, but continued very ill. The pledget came out the following day, but the part was poulticed, and the opening continued to discharge, and as it did not freely empty the cavity, was enlarged on the 22nd, and though the child continued ill, on the whole he improved.

On July 29 the following notes were taken:—The left side of the chest is very much contracted, and moves much less freely than the right. There is about a tablespoonful of healthy pus discharged each day. The heart's sounds are most distinctly audible to the left of the lower end of the sternum, in the natural situation. The spine is much curved, the left shoulder dropping, and the head being tilted over to the left. He takes his food well, and the bowels act naturally, and he is altogether better. There is very little respiration to be heard in any part of the left side, and only at the upper part in front and to the left of the spine behind.

He was discharged, much relieved, but with the side still discharging a small quantity of pus each day, on August 17.

May 13, 1875.—He has continued much in the same state since he left the hospital. He has always had a cough, and the side has continued to discharge, but he has decidedly grown, and looks altogether better. His head, although still large, and the forehead prominent, is less disproportionate than before, and he has latterly been more cheerful, and has played with the other children.

The fistulous opening is in the fourth interspace, and is situated about an inch outside the nipple and at the level of that body. The left side is very much contracted, being flattened and hollowed, especially in the upper mammary region, where also the percussion-sound is entirely dull. The stomach enters into the thorax to a high level; below, the heart's sounds are most distinctly heard at the lower end of the sternum and to the left of that part. There is very little respiration to be heard on the left side in front and only above, but behind the breathing is free and distinct over a large space. The right side is full and expanded, and the respiratory sounds are loud and healthy. There is a marked spinal curvature, the convexity being turned to the right side in the dorsal region, and the head is tilted towards the left shoulder.

Case 3.—*Pleuritic Effusion on the Left Side—Paracentesis—Cured.*

W. C., aged five, admitted into St. Thomas's Hospital on August 7, 1873, labouring under pleuritic effusion of the left side, of probably one week's duration.

On the following morning, the child's breathing being very much embarrassed, the chest was tapped by Dr. Evans with a small trocar introduced in the fifth interspace, at the lower angle of the scapula, and about twenty ounces of clear serum were removed. A little air entered the cavity during the operation from the struggles of the child. The operation was attended by great relief.

When seen by me, on August 12, the following notes were taken:—The left side of the chest is still much fuller than the right, and the air enters with difficulty into both lungs, so that there is very marked diaphragmatic breathing, and very little movement of the chest on right side, while the left side is entirely fixed. At the lower part of the left side, when he sits up there is entire dulness on percussion, but when he is lying on the back the anterior portion of the chest becomes markedly clear. The heart's sounds are everywhere very feeble, and it is impossible to feel the point of pulsation of the apex. Skin cool, 99·2°; pulse rapid and feeble, 132; respirations very short and hurried, 52.

August 15.—He is certainly much improved. The respirations, though still diffused, are less hurried, 32. The respiratory sounds are more distinctly to be heard than before, but the chest-walls do not move freely on either side. The diaphragm acts powerfully, and the lower portions of the chest-walls on both sides are drawn in with the inspirations, while there is a marked depression at the end of the sternum. The left side in front, when he lies on the back, is still markedly resonant on percussion, and the respiratory sounds are there inaudible. The breathing continues imperfect on the right side. When he sits up, there is still marked dulness on percussion below in the left dorsal, lateral, and anterior regions, with entire absence of respiration, and a splashing or gurgling sound can be heard when he is shaken. The cardiac sounds are most distinctly heard between the right nipple and lower end of the sternum, below the level of the nipple.

19th.—He is very much better than before, although there is still some evidence of air in the left pleura, the mammary region being markedly resonant on percussion when he lies upon the back, and the respiratory sounds very imperfectly audible. When he sits up, there is entire dulness on percussion, and absence of respiration in the dorsal and in the lower lateral and anterior regions, and a little gurgling can be induced by shaking him. The heart's sounds are most distinctly heard between the right nipple and lower end of the sternum. The respiratory sounds are much more distinctly heard in the right side than before. Tongue moist, covered with a white fur, through which the reddened papillæ project. Pulse 100; probably excited by emotion. Skin cool and moist. Respirations 36, short and hurried.

22nd.—The breathing is much freer, and especially on the right side, but it is very imperfect on the left side, though the resonance on percussion when he lies upon his back is less clear, indicating that the air in the pleural cavity has diminished. Behind and below, when he sits up, the dulness is less marked. The heart remains displaced to the right side.

September 8.—He has steadily improved, and has been running about the ward for the last few days.

Presented "cured."

Case 4.—*Empyema on Left Side, Removed by Aspirator, and followed by a Large Opening Externally—Greatly Relieved.*

H. S., aged eleven, admitted into Alice ward on October 13, 1873, labouring under the effects of pleurisy on the left side. Although always delicate, she was of a healthy family, and had had no serious illness till three months before, when she suffered from pain in the left side and shortness of breathing, and these symptoms continued till six weeks before her admission, when she was quite laid by, and suffered also from a cough. When admitted she lay on the left side, and that side was found to be fuller than the right, the enlargement being most marked in front and towards the lower part. The movement of the side was entirely abolished, and there was complete dulness on percussion and absence of respiration at the lower

and lateral parts. Posteriorly, respiration was heard above and towards the spine, but was attended by bronchitic rhonchus. The heart was displaced to the right, beating in the fifth interspace below the right nipple, and between that body and the right side of the sternum; the sounds were loud and flapping, and were most loudly audible in the situation indicated. She had a paroxysmal cough, but no expectoration.

The following day Dr. Turner tapped the chest by the aspirator, the puncture being made between the fifth and sixth ribs, in the line of the axilla. About ten ounces of pus were removed, mixed towards the end of the evacuation with a little air. Before the operation the left side of the chest measured twelve inches and one-eighth, and the right side thirteen inches and a quarter—the left, notwithstanding its obvious fulness, being thus the smaller of the two. She was obviously relieved by the operation: the cough became less severe and the breathing easier, and the resonance on the left side improved, but probably from the presence of some air in the pleural cavity. On the 17th, the right side of the chest measured twelve inches and a quarter, the left eleven inches and three-quarters. There was some return of breathing under the left clavicle and towards that side of the spine posteriorly, and she was capable of lying either on the left side or back. Up to November 21 she continued to improve both generally and in the condition of the chest, but the heart remained displaced to the right side. From this time, however, the fulness at the lower part of the left front became more marked, and on December 2 there was obvious fluctuation to be felt at about two inches below the nipple, and in the line of that body. The abscess was punctured, about an ounce of pus being removed, but the cavity very rapidly refilled. On the 9th the abscess was freely laid open, and about twelve ounces of pus were evacuated, and the next day two ounces more escaped. After this there was but little discharge, and the aperture closed. The side became obviously contracted, and the prominence in front diminished. The space over which the respiratory sounds could be heard increased, and her general condition was greatly improved, though the heart remained displaced. On the 16th she was removed by her friends, being then very greatly relieved. The left side measured twelve inches and three-quarters, and the right thirteen inches and a quarter. Her tongue was quite clean, the pulse quiet, and the cough much less troublesome. Her temperature had never very much exceeded the normal limit, the highest recorded having been 99·5°.

I have been incapable of learning anything of the child since, the parents having removed from the address given at the time of the admission of the patient into the hospital.

Case 5.—Empyema of Left Side in process of Expectoration—Fluid removed by Aspirator—Abscess in Seat of Puncture—Death.

E. T. N., aged three, admitted into Victoria ward, October 26, 1874, labouring under empyema of left side in process of expectoration. The child was taken suddenly ill three months before, in consequence of having been exposed to cold when imperfectly clothed, and the attack commenced with shivering, followed by cough and pain in the chest. He continued ill from that time, though suffering more severely for three weeks before his admission into the hospital, and was reported to have lain continually on the left side. Five weeks ago he began to expectorate and occasionally to vomit his food. When he was placed upon the right side the cough immediately became violent, and was followed by considerable expectoration. In front, the left side of the chest was obviously much fuller than the right; but behind, the side appeared contracted. When the child was sitting up, the side was almost motionless and entirely dull on percussion, except at the upper part, where there was a very obvious *bruit-de-pôt* heard with every tap. At the upper part, and along the left side of the spine, there was much subcrepitation to be heard, and lower down the respiratory sounds were abolished. The heart's sounds were more distinctly audible to the right of the lower part of the sternum, between that bone and the line of the nipple, but the point of pulsation of the apex could not be felt. The right side moved freely, and the respiration was very distinct, though also attended with some crepitation.

On the 30th, it was thought desirable to puncture the chest, and this was done in the line of the axilla and between the third and fourth ribs: between five and six ounces of very offensive pus were evacuated by the aspirator. After the operation the child appeared relieved, and took his food better; but an abscess subsequently formed in the seat of the puncture, and was laid freely open on November 3, when fully half a pint of offensive matter was evacuated, the cavity being afterwards freely syringed with Condy's fluid, and the wound dressed with carbolic oil. The opening continued to discharge about two ounces each day when the pledgets were removed. No improvement, however, ensued, and the child died exhausted on November 8.

Case 6.—Empyema of Left Side—Fluids evacuated by Aspirator—Abscess subsequently formed and opened—Death.

J. R., aged eight, admitted into Alice ward, February 27, 1875, labouring under the effects of pleurisy of about four months' duration. She was a delicate-looking little girl, but her parents and all their children were alive and healthy. The left side of the chest was entirely dull on percussion, and there was very little movement with the respiratory acts, and scarcely any respiration was to be anywhere heard, and only at the upper part of the side in front and behind, and along the left side of the spine.

The left side of the chest was evidently contracted, there being marked falling-in under the clavicle, and the stomachal percussion-note could be elicited up to a high level. The spine was slightly curved, the convexity presenting to the right side in the dorsal region. When the child drew a full breath after coughing, a metallic echoing sound was heard in the left dorsal region. The apex of the heart could be felt to beat behind the right false ribs, to the right of the xiphoid cartilage. The child was much prostrated and emaciated, and the breathing was very greatly embarrassed, and she had a troublesome cough, though without any expectoration. It was decided at once to tap the chest, and about twenty-one ounces of yellow pus were accordingly removed by the aspirator.

The evacuation was productive of considerable relief; the breathing became easier, and the side was diminished in size, and on March 16 she was decidedly better. The improvement was not, however, maintained; the difficulty of breathing again became great, and a swelling made its appearance in the left upper mammary region, towards the left side of the sternum. This was poulticed, and soon yielded fluctuation. The abscess was opened on the 29th; about eight ounces of offensive pus were evacuated, and there was considerable draining afterwards. The child become more exhausted, and died on April 6.

On examination after death, the fistulous opening was found to occupy the second intercostal space, and to be situated about half an inch from the left side of the sternum. The passage extended backwards, close to the left side of the pericardium, into the pleural cavity. The left lung was attached by firm adhesions at the upper and posterior part. The upper lobe, and the upper part of the lower lobe, were collapsed from compression, and the cavity contained about fourteen ounces of curdy pus. In the lower lobe there were two cavities with irregular walls, into which main divisions of the left bronchus opened. The bronchi in both lungs contained some coagulated blood. There was no tubercle or other serious disease in the right lung, and the other organs of the body were healthy.

The result of the operation in these cases is not very favourable; in two only of the cases was a complete cure effected, while in two, fistulous openings still remained at the time of the patients' discharge from the hospital, and in two the patients died. It will, however, be observed that only in the cases which recovered was the indisposition of short duration, while in all the others the patients had been long ill when they first came under notice. In one of the cases in which the discharge of matter was still going on when the patient was removed from the hospital by her friends, she has not been heard of since, but it was supposed that she would probably ultimately get well. In the other, the discharge still continues, though more than a year has elapsed since the operation. In the two cases in which the patients died there was disease of the lung, and in one of them air in the pleural cavity, probably the result of perforation of the lung before the operation was performed. It might be questionable whether in cases of this kind it is desirable to have recourse to the operation. As, however, it is often very difficult, and especially in children, to say whether there is co-existent lung disease or not, and as the operation is a very trivial one and in itself entirely free from risk, I should certainly operate in all cases in which I had reason to think that the effusion in the pleura was aggravating the patient's suffering or placing his life in more immediate danger. I

have known cases, in which there certainly was lung disease, much relieved by the operation, and others, in which there was great reason to suspect its existence, get entirely well.

ON A NEW METHOD OF MAKING PERVIOUS THE EUSTACHIAN TUBE AND OF INFLATING THE TYMPANUM.

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The chief difficulty in catheterising the Eustachian tube—that beneficent operation which I may here emphatically say will never be superseded in practice—lies, as is well known, in the often obstructed condition of the nasal meatus. The turbinate bones and the septum nasi, which mainly contribute to form the meatus, are in size, shape, and position such variable structures that they cause the proportions of the nasal meatuses to vary immoderately, and sometimes render the passing of a catheter so difficult, that it requires, in addition to a very nice sense of touch in the fingers, which indeed is a specially indispensable qualification of a good operator, also considerable practice and ample experience to enable one to perform this operation with the requisite adroitness.

To acquire, fairly, dexterity of this sort is not an easy matter, for the dislike of the patient to instrumental treatment is augmented by the thought that the operation is going to be on his head, "in the neighbourhood of the brain," and, besides all that, deep down in parts that cannot be seen. Hence the always small number of practitioners who understand properly how to pass the catheter.

Furthermore, if we consider that there are patients who lack sufficient courage to submit themselves to catheterisation, even at the hands of the most experienced and skilful of operators, and that, moreover, cases present themselves where the passage of the catheter through the nasal meatus, whether by reason of congenital or acquired deformity, or on other grounds, is impossible or inexpedient, we shall gladly welcome any method which enables us to attain, without the assistance of the catheter, objects which otherwise could only be achieved by the employment of this instrument.

One of the chief aims that we commonly have in view in passing a catheter is to blow air through the Eustachian tube into the cavity of the middle ear—a procedure which is briefly designated as the air-bath, and the employment of which in aural surgery, as is pretty well known, is, of all the means of treatment that we as yet are aware of, that which is the most often indicated and the most frequently used. And, in short, it is consequently desirable that we should know of some means of giving the air-bath, which would permit of our attaining the same, or at least approximatively the same, end without the introduction of the catheter into the Eustachian tube.

The method which has of late years been employed with much success for this purpose is that which was first described by A. Politzer. This, as is well known, is as follows:—The patient having taken a small quantity of water in his mouth, the end of the nozzle-piece of one of the indiarubber bags, which Leiter (the instrument-maker) has specially constructed for the purpose, is passed about half an inch up the nose; the nostrils are next hermetically closed on the nozzle-piece by means of the thumb and forefinger of the operator's left hand, and then during the swallowing of the water, which the patient has to perform at the command of the operator, the latter, holding the bag in his right hand, suddenly compresses it.

According to the generally entertained views on the subject, the upper part of the pharynx at the moment of the act of swallowing is by the contraction of the structures of the throat completely cut off from the lower portion of the pharynx, and at the same time the tuba Eustachii opens, whereby it happens that the air compressed in the nasal cavity, being prevented from escaping in other directions, passes through the tube into the cavity of the middle ear.

In spite of the very valuable gain which practice has derived from this method, it nevertheless presents many drawbacks, to which we shall refer later on, when we have described the new method.

Lucae(a) more recently, on the basis of observations on the function of the soft palate and the Eustachian tube, which observations he had the opportunity of making by direct inspection of the functional parts in the case of a patient who presented an extensive deficiency of the nose, recommended that for the inflation of the tympanum the nozzle-piece of the bag should be introduced into the nose just as in Politzer's method, and that while the patient intoned the vowel *a* the bag should be compressed. During the phonation of the vowel *a* the soft palate becomes tense and shuts off the upper pharynx, and then air can be forced, as in Politzer's method, through the tube into the tympanum.

I purpose referring again in another place to these labours of the distinguished author, and will here only briefly mention that I have convinced myself that it is possible in many cases to drive some air into the tympanum in the manner described, and that, as the author himself specially pointed out, this method may be useful in the treatment of small children.(b)

In the treatment of adults, namely, when it is a question, as in such cases it is apt almost always to be, of overcoming a stronger resistance in the tube, the method recommended by Lucae is certainly not easy of accomplishment. For in the case of morbid changes in the tube—and with such we have chiefly to deal—the air entering the pharynx quite easily overcomes the obstacle offered to it by the slight tension of the soft palate during the phonation of the vowel *a*, and finds vent downwards without getting through the Eustachian tube into the tympanum.

In order that the air may enter the tube with the requisite force, it is indispensably necessary that the closure of the upper pharynx should be such as is capable of offering a strong resistance; and to attain this in a simple manner a mere swallowing movement, or some movement analogous to it, is sufficient; and since in the employment of the swallowing movement, as in Politzer's method, I have found many disadvantages, I thought of an analogous one, and I believe I have found a better one for our purpose.

I will now proceed to describe it, giving at the same time the description of the method which I shall recommend in association with it.

It relates, as I have often mentioned, to the best possible closure of the upper from the lower pharynx, in which the muscles of the soft palate and co-ordinately the muscles of the tube shall enter into action. All this is attained by simply pressing the root of the tongue against the hindermost segment of the palate, if at the same time a powerful expiration is performed. In pressing the hinder segment of the tongue against the palate the cavity of the mouth is cut off from the throat, and at the same time the soft palate is pressed upwards and backwards. The air which, owing to the simultaneous expiration, enters the throat, finds egress neither through the mouth nor through the nose—a fact which may be readily proved by holding before the nose at the same moment either one's hand or a small flame. The flame is not disturbed even in the slightest degree, and the hand does not perceive the least sensation of a breath of air during the expiration, which, however, it certainly would if air issued from the nose. The stronger the expiration, the more tense is the soft palate rendered by the air that passes from the lungs into the throat, and so much the more resistant is the closure of the upper pharynx. This moment, on account of the position of the structures of the throat, would be the fittest for imparting the greatest possible force to air forced out of a bag inserted in the nostril.

If we always had perfectly tractable patients to deal with, we would certainly employ this position. However, as this is not the case, we must be contented with such movements as approach as nearly as possible those just described, and these, according to the studies which I have made as to this point on myself and on patients, are those which are caused when we pronounce the consonant *hck* (= *hkk*) in the most accentuated manner. Since, however, even with respect to this, it is necessary to have regard to the varying intelligence of patients, and since it is not always a matter of the firmest closing of the upper pharynx, and since it is easier for the surgeon if he directs the patient to repeat after him a full syllable, he can intercalate a vowel as in *hack*, *heck*, *hick*, *hock*, *huck*.

If we pronounce the above-named syllables in the order here written down, we may convince ourselves that the tongue

(a) Prof. Dr. Aug. Lucae, "On the Function of the Tuba Eustachii and Velum Palati,"—*Virchow's Archives of Pathological Anatomy, Physiology, etc.*, vol. lxiv.

(b) Indeed, in the case of small children it often happens that mere compression of the bag suffices to drive air into the tympanum. This fact was first noted by Schwartze, and has since been confirmed by every author.

becomes drawn further backwards and more strongly upwards as we proceed with the list of syllables, so that with the syllable *hack* the tongue is most forward, at the syllable *huck* it is pushed furthest back to the upper part, and that in like proportion the upper pharynx is contracted and forcibly shut off. The closure is still more forcible, and carried further backwards, by the pronunciation of the consonants *hck* than it is by the syllable *huck*. We have therefore in this series a gradation, or, as it were, a scale of closure of the upper pharynx, which, as we shall see later on, is very useful.

As the reader has already noticed, the syllables are always written with *ck* (or equally *kk*), to which I need scarcely add that the *k* must be strongly accentuated. In proportion as the speaker may please to strengthen this emphasis, so is he thereby, and indeed very considerably, enabled to close firmly at his pleasure the upper pharynx.

If we now attempt to pronounce one of these syllables we notice peculiar changes in our ears. We remark each time a distinct movement in the membrana tympani, and by no means unfrequently a noise resembling that produced by the Valsalvian experiment. It consequently follows that in this experiment also the air must enter by the tube into the tympanic cavity, and that the tube during this experiment is opened.(c)

The details of the method which, based on all these data, I now recommend for the above-mentioned and other analogous purposes are as follows:—

The operator stands, or sits at his convenience, face to face with the patient. The end of the nozzle-piece of a rubber bag, which the operator grasps in his hand, is introduced into the inferior nasal meatus of the patient for about half an inch, and the operator at once hermetically closes the nostrils on the nozzle-piece of the bag with the fore and middle finger of his other hand, and while the patient at the word of command pronounces one of the before-named syllables (*hack*, *heck*, *hick*, *hock*, *huck*, *hck*), the bag is squeezed. Thereupon the air passes with a distinctly perceptible noise through the tube into the cavity of the tympanum.(d)

The noise which is produced by the forcible entry of the air through the tube can be auscultated with precision by means of the otoscope. In cases where the membrana tympani is perforated, the well-known perforation sound is produced. The patient feels a distinct sensation of the entry of the air into the tympanic cavity. The membrana tympani exhibits, on inspection, quite distinctly the well-known appearances—in short, all the signs of an entry of air into the middle ear having taken place are present, provided the tube is not impermeable in such a degree as to resist also other modes of procedure.

If, during this procedure, I cause the patient to incline his head strongly towards one shoulder, it almost always happens, especially when I insert the bag into that nostril which corresponds to the ear in which I desire to drive the air, that the air flows into the ear directed upwards—that is to say, the one that is turned away from the shoulder. In cases where the air also entered the other ear, it nevertheless almost always happened that the patient felt the air more strongly in the upward-turned ear. If the patient with this kind of procedure had once confidentially declared that he felt the air in one ear, he had also the same sensation if I repeated the trial, either several times in succession or on different days. Whether in this particular position the muscles of one side possibly act more energetically, or whether the forced-in air more readily follows the upward direction, or whether in this position the expired air exercises a stronger pressure on the one half of the soft palate, and so shows the way to the air driven in through the nose, I am unable to say. I would also make these latter statements with all reserve, and only point them out since it would obviously be of inestimable value if we had a means of this kind by which we might be able to drive air through only one tube. To sum up, the advantages possessed by this process as compared with Politzer's are as follows:—

First, it is much simpler, the swallowing motion being no longer required. There is no swallowing of water either. To appreciate this boon, one ought to be acquainted with the unspeakable loathing patients, as a rule, evince for drinking the water, although I have practised this process much less frequently than others. A large number of glasses used to stand in readiness on my consulting-table, and yet patients used to be compelled to make an almost superhuman effort just to sip water out of my glass. Indeed, we cannot well blame them for this if we take into consideration that a practitioner's consultation-room must be accessible to all patients, let the nature of their diseases be as contagious as it may.

Apart from this, however, if the process is to be repeated more frequently, the swallowing of water becomes not only troublesome, but actually painful. To the objection that the patient might make a swallowing motion even without water, I reply that in such cases the driving-in of air through the tubes proves often unsuccessful, and that the repeated unsubstantial swallowing is even more painful than the swallowing of water. We will say nothing of cases in which, owing to concomitant throat diseases, the swallowing is painful; neither need we dwell upon the fact that when such an attempt is made the air not unfrequently gets into the stomach, producing violent pain, which does not subside until the stomach has discharged this air by repeated eructation.

2. By keeping the throat structures for a more protracted period in the position of the ending of the syllable (*i.e.*, of *k*) one is enabled to let the air pass somewhat longer through the tubes into the cavity of the tympanum, which is perfectly impracticable during the short act of swallowing, which, as it is well known, cannot be protracted.(e)

3. Taking the above scale into consideration, the air may be pushed with any amount of power at choice through the tubes; and this advantage is to be valued all the more that we know that, owing to the rapidity with which Politzer's process—if it is to succeed at all—must be put into operation, the membrane of the tympanum has often been ruptured.

4. This process, if applied to self-treatment, must needs be much more advantageous, since the patient, guided by his own feeling, may intensify at will the pressure of the air entering the cavity of the tympanum.

I now beg to recommend this process to my highly esteemed *confrères*, hoping that they also will make their experience on the subject public.

(c) I have as to this matter made a series of manometrical experiments; they are not yet fully completed, and I reserve the account of them for a future opportunity.

(d) For this procedure I make use of a bag which differs from Leiter's, in that the nozzle-piece is quite solid, and screwed into the bag. In Leiter's nozzle-piece there is between the proper nose-piece and the bag a piece of indiarubber tubing. I find this modification very disadvantageous, for the bag is thereby rendered not only more difficult to handle, but the nozzle-piece cannot be so readily cleansed. Bags such as I use are always in stock at Leiter's, as well as at Reiner's in Vienna.

(e) I hope that in this manner it will be possible to introduce also some other medicaments into the middle ear.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES OF PARTIAL CONVULSION FROM ORGANIC BRAIN DISEASE, BEARING ON THE EXPERIMENTS OF HITZIG AND FERRIER.

(By Dr. HUGHLINGS-JACKSON.)

(*Continued from page* 331, *vol.* ii. 1875.)

Case 21.—*Lupus—Disease of the Jaw—Double Optic Neuritis—Convulsions beginning in the Left Hand—Disease of the Right Cerebral Hemisphere* (*?Congenital Syphilis*).

I THINK it most probable that this is a case of congenital syphilis. That the brain disease is syphilitic is, practically, a certainty. It is an interesting example of the association of double optic neuritis with convulsions beginning unilaterally. This is an association that almost always depends on syphilitic disease of the brain. I did not make this diagnosis during the lad's life: I thought he had a "scrofulous tumour" in his right cerebral hemisphere, because he had disease of the right ear. Disease of the ear leads to cerebral or cerebellar abscess, but it is certainly now and then associated with scrofulous tumour in the cerebrum or cerebellum, and I think it causes the tumour.

Organic ear disease is not very unfrequently associated with epilepsy or epileptiform convulsions—with cases, I mean, such as are commonly called epileptic or epileptiform. I think the "discharging lesion" in these cases is caused by blocking of veins, in the same way as the abscess which sometimes goes with ear disease is caused; that, in fact, the "discharging lesion" is a result of hyperæmia, caused by a process which some-

times goes further than causing hyperæmia—causes abscess. I did not think this was the pathology in the case I am about to relate; for it was plain, from the intense headache and double optic neuritis, that the "discharging lesion" was caused by some kind of *coarse* disease—that there was more than local hyperæmia. That this coarse disease lay in the right cerebral hemisphere was quite certain.

It is probable that the local disease of the brain was indirectly caused by the blow where the scar had been. This does not invalidate the diagnosis of syphilis. There is no doubt that active syphilitic changes are often *started* by injuries.

I believe this patient died of pain. I have seen many instances of sudden death in cases of tumour (without hæmorrhage from the tumour) and cerebral abscess (without rupture) from, as I feel convinced, intense pain.

For the examination of the brain in this case I am indebted to my colleague Dr. Gowers.

Thomas N., aged sixteen, errand-boy, admitted April 26, 1875; transferred from surgical wards, May 4. About two years and a half ago a lump came under his lower jaw on the left side. This increased in size, and then burst. The ulceration spreading involved a large surface on the left cheek and lower lip. He has a great number of scars over the situation of the lymphatic glands. He has lost his lower incisor and left canine tooth, and states that they came out themselves; his right canine tooth, being loose, was removed to-day. Saliva is constantly flowing from his mouth, and gives him much trouble. His mother died about twelve months ago, he says, from abscesses in her brain; his father is alive; he has no brother, and only one sister alive. About five months ago he had a fit. This came on while he was sitting at tea, and began in his left hand, causing him to drop his bread-and-butter; it then travelled up his arm, and so on to his lower jaw. He had no loss of consciousness. He had another fit, which began in the same way, about a month afterwards; he was walking on the footpath, fell, and was insensible. He has not had many others: the last one was on the 22nd inst.

April 28.—To-day he has complained of numbness in his left hand, and dimness of sight. His eyes were examined: the optic discs were swollen, with an ill-defined edge, and the veins were large and full, with distinct curves as they passed over the edge of the disc. No changes were discovered in any other part of the fundus. He has discharge from the right ear, and says he has always had it. There is not much, but it is yellow and offensive, and still continues at intervals. He does not know if he has had scarlet fever. He has pain in his head, which began three years ago; and the pain is so severe that last night he did not get any sleep on account of it. He has a vertical scar on the right side of his head, of which he can give no account.

May 6.—He was unable to sleep during the night in consequence of intense pain in the head. Says he has had severe pain in the ear as well as in the head.

10th.—He has complained of severe pain in head, especially the back of the head; he has had no more fits.

11th.—Still severe pain, no more fits. *Diagnosis.*—Disease of right cerebral hemisphere, near the corpus striatum, in connexion with organic ear disease, probably scrofulous disease, possibly abscess.

15th.—Mr. Rivington examined the boy's ears. *Left Ear.*—Some old dried wax occupying the lower half of meatus. Beyond wax, the membrana tympani appears not much altered, but internally part of handle of malleus is visible. *Right Ear.*—Apparently obscured by discharge; cannot practise Politzer's inflation. Patient cannot retain water in mouth, and will not let surgeon keep the tube in nose.

18th.—Mr. Couper examined the boy's eyes. There is a good deal of grey opacity about both discs, but the swelling in both is inconsiderable, $\frac{1}{21} + \frac{1}{32} = \frac{1}{12}$. In the left eye the difference between the apex of disc and adjoining retina $= \frac{1}{12}$.

23rd.—He has had less pain in his head for a day or two.

24th.—Last night he had severe pain in his head, all over both back and front, and sometimes down his neck.

25th.—He was up yesterday for the first time since coming into the hospital. He was sitting down during the afternoon, when the nurse noticed that he looked as if he were asleep. She spoke to him; he answered her. She took him to his bed, and undressed him; he spoke during the time, and was conscious of what was going on. When he was in bed the sister came to give him his medicine; he began to drink it. He began now to feel sick, and vomited. He says that the pain returned before he was sick, and extended down the back of his neck. He walked to his bed with nurse's assistance. A patient noticed that he had a kind of trembling of the hands and fingers, and swayed to and fro as he sat, and whilst being led to his bed. He moaned, and after the pain came on he shouted and cried out with pain.

26th.—He has had a very bad night. He describes the pain as "horrid," and refers it to the frontal region.

27th.—He has slept pretty fairly; not so much pain. During the day felt free from pain, and got up.

30th.—He has been in pain the whole of the day and last night; he has also been sick several times. The pain was very intense, and he died somewhat suddenly. I believe he died of pain.

It is to be noted that whilst in the hospital he had several convulsive seizures limited to the left arm, without loss of consciousness. But of none of these was any precise account obtainable; they were seen by the nurse only.

Autopsy by Dr. Sutton.—Body badly nourished. There were some lupus-looking sores on the cheeks; the skin in such places destroyed, and surrounded by yellowish-looking scab; and an ulcer, covered to some extent by pus. In other parts the skin had a smooth, blue appearance, such as is seen in lupus. In other parts, especially radiating from the angles of the mouth, the skin was white and fibroidly thickened and adherent to the bone of the symphysis. On cutting through this it was found that the periosteum was much thickened and united to the skin. The surface of the bone was roughened, and the whole of the front of jaw much thickened. On section, the bone was found to be compact throughout—a dense, uniformly consolidated mass. Larynx, trachea, and lungs normal. Testicles normal. Brain: In the scalp over the vertex—*i.e.*, in the pericranium—there was a gummous tumour with yellow material in the centre, with fibroid around it. The skull was here somewhat thickened, and had a dull white seam in the inner table, evidently a scar. This portion of the dura mater, which was adherent over half a square inch, was very much thickened. This thickened portion was adherent to the pia mater; it was made up of a greyish yellow substance, and a yellow material was seen extending into the convolutions underneath about half an inch into the brain substance. The yellow substance was surrounded by grey fibroid, and its appearances clearly indicated it to be syphilitic.

Dr. Gowers' Report.—The dura mater was adherent to the right hemisphere over an area two inches and a half from before back, and an inch and a half from above down. This adhesion was due to the presence of a tumour attached to, and apparently growing from, the dura mater, which projected into the substance of the cerebral hemisphere. The growth was oval in form, and situated in the lower part of the parietal lobe. The anterior part occupied the lower part of the ascending parietal convolution, and had bridged across the fissure of Rolando, so that its anterior extremity was situated in the ascending frontal convolution. The lowest inch of the ascending parietal convolution—that next to the fissure of Sylvius—was healthy. The tumour involved also the supra-marginal and angular convolutions, so that the terminal ascending part of the horizontal limb of the fissure of Sylvius passed up into its midst. Above, it did not quite reach the transverse portion of the intra-parietal fissure. It was difficult to say whether the growth had invaded or displaced the convolutions. There was much adjacent softening. It appeared rather to have invaded than diplaced them; its extent from without inwards was an inch and a half at its middle. On section, the dura mater over the growth was much thickened, and the tumour had apparently sprung from it. The new tissue appeared as if composed by the aggregation of many nodules, the centre of each nodule being opaque, white, and firm; the periphery grey, and gelatinous-looking. The brain was otherwise healthy.

Microscopical Examination.—In the recent state, scrapings of each part of the tumour, opaque and translucent, showed only small spherical cells, about $\frac{1}{1500}$ of an inch in diameter and smaller, with small nuclei very uniform in size—about $\frac{1}{3500}$ of an inch in diameter. Both cells and nuclei contained a few granules, and appeared to be in a granular or finely-fibrillated matrix. Examination of hardened specimen showed that these round cells constituted in some parts the whole substance of the growth; in others they were scattered amongst a delicate tissue of interlacing fibres; in other portions they lay among

fusiform cells. The latter were in some parts very abundant, so as to be the predominant element; and in certain peculiar bands which traversed the tumour these cells appeared to have coalesced into an almost homogeneous tissue, in which oat-shaped and linear nuclei were embedded.

The microscopical structure was quite compatible with, and even suggestive of, the syphilitic nature of the growth.

(*To be continued.*)

UNIVERSITY COLLEGE HOSPITAL.

CASES UNDER THE CARE OF MR. MARSHALL.

For the following notes we are indebted to Mr. Pearce Gould, B.S.:—

Case 1.—*Very Large (Irreducible) Ventral Hernia in the Scar of an Abscess resulting from Pelvic Cellulitis—Bag Truss ordered—Somewhat Relieved.*

Mary F., aged thirty-nine, a widow, chiefly engaged as a midwife, was admitted into University College Hospital on March 1, 1875. She has had nine children, of whom five are living and healthy, and two were stillborn; she has always had bad confinements. Present illness began in March, 1870. One month after her last confinement a black speck about the size of a threepenny-piece appeared in the right groin. From the time that she was delivered up to the time of formation of the black speck she suffered from a constant and almost unbearable pain of a cutting nature. The black speck increased in size until, at the end of fifteen weeks, it was as large as the top of a breakfast-cup. The skin at this part then burst, and a pint or more of pale yellow matter came away. Some of the matter was almost solid. It was poulticed and dressed with lint and a black lotion. She then appeared to be going on very well, but two months afterwards matter came from the bowels. The discharge from the bowels continued for a month. About two months after it burst internally the womb came down. She was in Soho Hospital for two months, and when she came out the womb was quite restored to position. About a month after she came out of the hospital, while she was lifting a person into bed, she suddenly felt something give way on her right side, and found a lump as big as her fist just above the right groin. It was reduced, and she wore a truss for about three months, but then the swelling became so large that she could not wear a truss. From that time the swelling has gradually increased in size. She has a dragging pain at the seat of the swelling from time to time, particularly when she walks about, and when she has taken any food. It has always been very tender. From the right side of the abdomen there is a large projection measuring in circumference about twenty-two inches, and projecting from the side about eight inches when patient lies down. It consists of two masses of lobular shape, the smaller of which is on the anterior surface of the larger, and is about three inches in circumference. The upper part of the pedicle is on a level with the umbilicus, and the lower part on a level with Poupart's ligament. The scar of the old abscess is on the lower surface of the neck of this tumour. The greater part of the tumour is resonant on percussion, and on giving it a fillip with the fingers the vermicular movement of the intestines is easily seen. The smaller part appears to contain a hard mass in addition to intestine, and this is the only part where there is any tenderness. Several large veins cross in front of the tumour. The abdomen is very flaccid, and is marked by numerous white lines. As the patient lies in bed she feels no pain, but on walking about, and if she coughs, she has a pain in the neck of the tumour, and if the smaller mass be squeezed a pain is felt both at the part touched and at the umbilicus. Patient is a stout woman, but says she has been losing flesh for the last two years. She is very pale, and decidedly anæmic. Tongue is furred, and furrowed transversely. Bowels have been constipated for the last three weeks. For the last four or five months her menstrual periods have been more frequent, viz., one every three weeks, and the discharge has been excessive. The urine is acid, specific gravity 1024; copious deposit of urates; no albumen or sugar. Ordered ferri et amm. cit. gr. v., tinct. nuc. vom. ℥ v., aq. ℥j. t.d.s.

19th.—To-day an apparatus was fitted on. It consists of a broad band passing round the abdomen, and fastened by laces at the back. On the right side a large pouch projects to support the hernia. To the back of the band two straps are attached, and these pass one over each shoulder, and, after crossing in front of the chest, are buckled down to the band in front. A strap passes down from the broad band over the great trochanter, and round below the nates, then up the inside of the thigh to be buckled on to the band again. A truss is worn over the lower part of the hernial protrusion.

30th.—Patient left the hospital wearing the apparatus above described, which seemed a great support to her.

Case 2.—*Supposed Foreign Body in Œsophagus—Piece of Bone—Bougies passed—Dysphagia—Relieved.*

The following case is interesting (1) on account of the patient's firm assurance that the foreign body had lodged in the gullet, and the obstruction which was met with in endeavouring to pass instruments along the œsophagus both by the general practitioner and the House-Surgeon; (2) on account of the subsidence of all symptoms without further surgical interference after the obstruction had existed for four or five days.

Samuel W., aged 22, is a chair-maker by trade. Admitted April 13, 1875. Has always lived in London. In 1861 he suffered from dropsy, with which he was laid up for fourteen weeks. In 1871 he had scarlet fever, which left no ill effects. He has never had any serious injury. On April 9, 1875, while eating his dinner, the patient swallowed a piece of bone; he thinks of irregular shape, and as large as a small hazel-nut. He went immediately to a doctor in Camden Town, who passed a steel œsophagus-forceps, and also an œsophagus-bougie, with a sponge and loops of thread attached, but could not move the morsel, and sent the patient to this Hospital. Here the House-Surgeon attempted to pass the œsophagus-bougie without success. He then came to the Hospital daily as an out-patient, but nothing more was done until April 9, when several gum-elastic catheters, of different sizes, were tried without success, and he then became an in-patient. The accident has never had any effect on his breathing; but there has been a pain over the upper part of the sternum, which was at first constant, but which now is only felt upon swallowing. Until to-day the patient has taken nothing but beef-tea and milk. To-day he had about ℥ss. of meat; after this meal he has vomited, and brought up small pieces of potato which he had with the meat, but not the meat itself. With this exception he has had no other vomiting.

April 13.—Upon admission as an in-patient, several gum-elastic catheters of different sizes were passed; but although an obstruction could be made out, the nature of the lump could not be ascertained.

19th.—Since the last note no further operation has been performed, and the patient has lived upon beef-tea and milk. To-day he has had about half an ounce of meat, which caused slight vomiting and a good deal of additional pain over the sternum.

20th.—Patient has had some milk, with bread-crumbs, this morning. He slept about four hours last night. There has been no recurrence of the vomiting. The pain on swallowing is diminished. This afternoon the patient was discharged, with orders to come as an out-patient.

Seen afterwards as an out-patient. He soon became quite well. He had not seen the bone in his stools.

Case 3.—*Fracture of Nasal Bones—Nose driven in—Replacement—Relieved.*

George R., aged 24, admitted May 24, 1875, is a butcher by occupation. He has, generally speaking, been healthy, having had no serious illness or injury. At 11 p.m., May 24, the patient was running down the steps of the Metropolitan Railway station (Gower-street), when he fell and was stunned. He cannot remember what happened from that to the time he was in the hospital. When he came to consciousness he was in great pain, and says that he seemed to have bled a good deal. On admission the patient presented a most curious appearance. The nasal bones and cartilages were separated, and the point of the nose, upon which he had fallen, was driven in between them, projecting just beyond them. The House-Surgeon, Mr. Gould, pulled the end forwards, when it "buckled" into the right position; the nose was then broader than natural, and deviated a little to the left. Firm pressure was applied by pads of lint on the sides of the nose, and these were fixed by firm straps.

May 25.—Temperature 98°; pulse 96. The patient was discharged to-day. Swelling has diminished.

Seen afterwards as an out-patient. The deviation of point of nose was quite corrected; the arch was a little broad. The patient did well.

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Medical Times and Gazette.

SATURDAY, JANUARY 1, 1876.

TO OUR READERS.

In addressing to our readers, at the opening of the year 1876, our hearty New Year's greeting and good wishes, we again, as last year, refrain from giving them any long list of promised contributions. It is well known that our columns are always open, and gladly open, to every communication of interest or importance; and we have every reason to believe that through the year 1875, though we put forth no detailed programme of work, the *Medical Times and Gazette* well maintained its reputation as a record of the state and progress of science and practice of medicine—using that term in its largest and fullest meaning. We hardly need say that no efforts will be wanting on our part to keep up the high character of the journal, and to justify the confidence which we gratefully acknowledge has been placed in us; but, as we have said above, we give no long list of promised contributions for the year just commenced, as, with the very best and most confident intentions, such promises do sometimes, from various unforeseen and unavoidable circumstances, fail of fulfilment. We may, however, without any reserve, speak of some of the lectures which we shall be able to publish during the year. We shall continue Mr. Jonathan Hutchinson's lectures on "Injuries of the Head," on the high practical value and importance of which we certainly need not now dwell. We shall have the pleasure of giving some "Clinical Lectures" by Dr. Moxon, of Guy's Hospital, which will be eagerly welcomed by our readers; and we are glad to be able to commence in our present number a selection of lectures on some special points in Medical Jurisprudence from Dr. Ogston, of Aberdeen. It is long since any lectures on this department of medicine were published, and we have much satisfaction in having obtained a series from so able and well-known a teacher and expert as the Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen. Early in the year we shall give the first of a series of "Six Lectures on Recent Advances in the Pathology and Treatment of Diseases of the Throat," delivered at the London Hospital by Dr. Morell Mackenzie. While further, as an additional means besides that provided by our notes "From Abroad" of making our readers acquainted with the teaching and practice of our Continental brethren, we shall continue, with the Professor's special permission, to give translations of some more of the published clinical lectures of Professor Jaccoud.

ON THE STUDY OF MEDICAL JURISPRUDENCE.

We this week have the pleasure of submitting to our readers the first of a series of lectures on a subject which is far too much neglected among us; we mean the various applications of medical and surgical knowledge to the purposes of the law, both civil and criminal. On a recent occasion we had, much against our will, to comment unfavourably on the evidence of certain gentlemen whom it would have pleased us much more to commend, could that commendation have been compatible with the duty we owe to the profession. Not only was there a want of a due conception of the true duties of a medical witness in a court of law manifested in their evidence, but in certain statements which subsequently appeared in two of our contemporaries, the defects in the education of men otherwise well skilled in the ordinary duties of their profession come out even more prominently. Into the details of such misconceptions we shall not now go, though we are not sure but that an analysis of them might be useful; we shall confine ourselves to two of much importance contained in a few lines of introduction to what was called a clinical lecture, and which appeared in the columns of the *Lancet*. This referred to the Wainwright case, and in it the writer stated that from the beginning and throughout the inquiry he had kept his mind unbiased as to the guilt or innocence of the prisoner. Now, it cannot be too clearly borne in mind that the medical expert has absolutely nothing to do with the guilt or innocence of anybody. That is a question solely for the jury. The medical witness may have, and is entitled to have, his own private opinion, founded, it may be, on some special intelligence; but has not everyone the same right? The medical witness has no more right to use this information or his opinion to the prejudice of any prisoner before trial than has any newspaper writer or pamphleteer. And this is such a platitude that a lecturer should not think it needs alluding to. This leads us to the second misconception, which has, however, been so frequently exposed that it is like slaying the slain—slain, however, it seems, that continually re-arise. The The same writer a little farther on says that it was his duty to interpret facts only. For what, then, was the post-mortem examination made? Do not all post-mortem examinations essentially consist in the collection of a number of facts whence those who are competent by training and experience may found a sound indication as to the causes of death and all like questions which are matter of inference and not of observation. The duty of the ordinary medical witness is both to state facts and give opinions. It may happen that he may be called to give an opinion only, as when certain statements of matter of fact are submitted to him, which he is asked to take for granted, and his opinion sought on them; but even then he may be asked the ground of his opinion—again matter of fact. The same kind of thing occurs in a court of law when a medical man is asked to attend and to listen to the statements of witnesses. After that he may be asked his opinion on these statements, without being in the slightest degree responsible for them. But ordinarily, we repeat, he has to supply both a statement of facts and the opinions founded on them. We very

willingly take leave of this theme, which, had we not considered it as necessary, we should have desired to leave untouched, but nothing could better show that want of an intimate acquaintance with the fundamental rules of medical jurisprudence to which we have already alluded. Nor is it to be wondered at that this acquaintance should in this country be so imperfect. There is no encouragement given to the study of forensic medicine. Not long ago it was proposed to abolish the chair as one of the regular subjects of medical study. It is in England usually held as one of the junior appointments in a hospital school, which is promptly abandoned by its occupant when something better offers. We do not want text-books whilst we have Taylor's great work and the excellent manual by Guy and Ferrier, but we do want time and attention for their study. Young men do not really know what they want to enable them to go through life comfortably; they all look to their examinations for a guide as to what they should chiefly devote their time and attention to. But here they find no clue, for we make bold to say that there is no satisfactory examination on the subject of medical jurisprudence in England. Few men do, however, pass through life without somehow or other having to deal with the legal aspects of medicine. And it is specially with a view to their wants—wants which must be felt to be duly appreciated—that we have resolved on the publication of the lectures already referred to. Their distinguished author has for years been a teacher and student of the subject. Under a different system of judicature from our own he has had the practical experience of many years over a wide district in the North of Scotland, and is therefore intimately acquainted with that kind of knowledge which the practical man wants. That these opportunities have not been wasted, a reputation even higher on the Continent than at home justly testifies. These lectures we hope to continue regularly, and it will be our aim to lay before our readers the practical facts rather than the curiosities of medical jurisprudence. It is now many years since such a series was published, and we are confident of their utility.

LESSONS TAUGHT BY THE NORWICH HOSPITAL TRAGEDY, AND BY SOME RECENT "ACCIDENTAL DEATHS."

While, though ready, and many of us eager, to welcome 1876 with all its promises, its hopes, and its possibilities, we are as yet standing on "the low, dark verge" of the dying year, some minutes may be well spent in gathering a few of the lessons, for ourselves and for the public, taught by the Norwich Hospital tragedy and by some recent accidental deaths. In referring to the terrible event first named we have, of course, no intention of considering whether the unfortunate prisoner Edwards is a criminal or lunatic. That has to be determined by the legal tribunals of the country; but, taking the facts as given in evidence before the coroner and the magistrates, they are pregnant with warnings which the profession and the public will do well to take to heart. Robert Edwards was admitted as an in-patient of the Norwich Hospital, in the ordinary way, on the recommendation of a governor, on Saturday, December 11, with apparently no history of his illness and no caution as to his condition, and he was placed in an ordinary male ward. He was seen on the same day by Dr. Bateman, one of the physicians, to whom he stated that he had been ill for six months, and had suffered from flatulence. Dr. Bateman prescribed for him, and deposed that his manner was that of a reasonable man. Mr. Baumgartner, the House-Surgeon, saw him the same evening, between eight and nine o'clock, when he asked for something that would make him sleep, but showed no symptoms to induce Mr. Baumgartner to give him any medicine besides that already ordered for him. On Sunday morning, the 12th, he was examined by the House-Surgeon, who considered him to be suffering from nervous disorder, and thought him irritable, but observed nothing to lead him to suppose the man was dangerous. When the House-Surgeon went his evening round, twelve hours later, the man was in bed, and Mr. Baumgartner's attention was not called to him in any special way either then or when he was in the ward again at midnight. Between four and five o'clock, however, on the morning of Monday, the 13th, Edwards escaped from the ward, made his way to the children's wards, and commenced a murderous attack on the poor little patients there with a pair of tongs. An alarm was raised by the nurses on duty and by a boy of fourteen who had escaped from the children's wards, and Mr. Baumgartner, who was called up, found Edwards in one of the boys' wards, striking repeated blows with the tongs at a lad in bed. Arming himself with a poker, Mr. Baumgartner, in the most courageous manner, engaged in personal conflict with him, and succeeded in disarming and securing him. It was then found that in the other boys' room four lads were lying in bed with their heads horribly smashed—two of them were quite dead; one was still breathing, but died in less than an hour; while the fourth, as well as the fifth lad attacked (the one we have mentioned first), had received most dangerous and severe injuries; and these two happily still live. During the examination before the magistrates and the coroner's inquest, Miss Graham, the Lady Superintendent at the Hospital, said that, from what she had observed of Edwards, she considered him a patient requiring attention, as he did not sleep, and she had accordingly directed the night-nurse to keep a close watch on him; and the night-nurse stated that she had not noticed anything about the man to make her suppose that he required particular care. He had, however, got out of bed once during the night some time before he committed the murders. The Rev. J. Gunton, the Rector of Marsham, who had recommended Edwards for admission to the Hospital, stated that the man was in a low condition, and it was thought that a month in hospital would do him good; that he had never heard that he had a tendency to insanity, and considered him a man of average intellect. But he admitted to having heard that the man's friends had been obliged some time since to confine him to his room, as he was "restless." And the curate of the parish deposed that he had frequently visited Edwards, who had always been excitable and strange, and had, he considered, been becoming gradually worse of late. He had not, however, communicated this impression to his rector, as he had supposed Mr. Gunton would have drawn a similar conclusion from his own observations. The man's father, moreover, stated that, some weeks before, his son had warned him to conceal his razor, as he had no control over himself; and that he had been obliged to tie his son's hands, as he himself had not sufficient strength to confine him to bed. The coroner's inquest terminated in a verdict of "Wilful murder" against the unhappy man Edwards, but the jury condemned the conduct of the surgeon who recommended him to Mr. Gunton as a fit person to be a patient in the Hospital, and they thought Mr. Gunton had been greatly to blame in giving the order of admission as he did. We have not noticed that the surgeon was examined before either the coroner or the magistrates, but, looking at the evidence published, it is not possible to avoid agreeing with the strictures of the jury if the man was really sent to the Hospital without any special warning as to his antecedents; and this point in the case will, we trust, be remembered by all who take part in procuring the admission of patients into hospitals, metropolitan or provincial. A very little of the information thus obtained too late might, if sent with the patient, have prevented the terrible tragedy we are commenting upon. As to the night-nurse, though she had been warned by the lady superintendent to keep special watch over the man, she had,

it appears, to attend to three wards, and therefore could not be always in the ward in which the man was placed; and we are glad to observe the authorities of the Hospital felt able, after a strict inquiry, to absolve their staff from all blamo. But it must be acknowledged that the night-nursing is one of the weak points, or at least one of the difficulties, in the management of many of our hospitals. It would entail great additional expense to have always a staff of night-nurses sufficient to keep "close watch" over the patients in every ward; and it is comparatively very few patients that require such care at night, so that it may well appear to "hospital authorities" unnecessary, if not even unjustifiable, to incur the expense of them. Additional nurses ought always, however, to be available; and it should be remembered that restlessness and sleeplessness, when not caused by pain or acute disease, are always to be regarded as suspicious symptoms.

The other matter to which we desire now to draw attention is the great danger attendant on the use, and especially the habitual use, of anæsthetics, anodynes, and opiates by the public without professional guidance and supervision. We admit, in the fullest manner, that pain is in itself a great and serious evil, and that sleeplessness is very distressing and very exhausting, and may be of very serious import; their presence in any marked degree, and continuing for any length of time, demands medical advice and aid. But there appears to be growing up among the public such an impatience and intolerance of all pain, or discomfort magnified into pain, of sleeplessness, weariness, or even only of *ennui*, that people provide themselves with, and habitually take, chloroform, chloral, and opium, or other narcotics, without any professional advice or directions; and we hear of women, and even young women and girls, carrying such drugs about with them, and taking them whenever and as they like. The sybarite nowadays does not attempt or call for help to get rid of the rose-leaf that makes bed uncomfortable, but resorts to "dull narcotics" to numb pain and force the desired sleep.

Our readers will remember that several deaths have occurred lately from this use of chloral, of chloroform, and of opium; and it is most important that medical men should take every opportunity of warning the public of the great danger to health and to life that of necessity attends such practices. No drugs of the kind we speak of can be used by non-medical persons without risk; and the conditions for which they are taken may often be removed by medical care without recourse to them.

THE WEEK.

TOPICS OF THE DAY.

As a proof of the steadily progressive increase in population of our Australian colonies, the vexed question of sewage has already begun to force itself unpleasantly upon the notice of the authorities; thus, we find that an injunction has been granted by the Supreme Court in a suit against the Corporation of Sydney, to restrain them from continuing a nuisance caused by an open sewer discharging itself into a part of the harbour. The sewer in question drains a large part of the city, and affects most injuriously the health of one of its suburbs. Sydney is built on three or four hills, the intermediate valleys sloping towards the harbour: the sewers have accordingly been constructed to empty themselves into it; and so long as the population was only limited, the nuisance was not perceptible. Things, however, have now much changed: the amount of sewage matter is greater, and this offensive matter, instead of being carried away by the tide, remains on the mud-banks which have been formed, exposed to the sun and air. In consequence, the vessels of the Royal Navy have been compelled to shift their anchorage, which was near the mouth of the main sewer, and cases of blood-poisoning have occurred in the city. Several forms of disease, especially erysipelas, have been unusually frequent. The Corporation not having sufficient funds to carry out any improvement, the matter is to be taken up by Government, and schemes for pumping, filtering, and deodorising have been considered, but the only step determined upon at present is to carry the sewers out into deep water, by which means it is hoped that the tide will carry off the offensive matter.

Last week a meeting of the constituents of the Hospital Sunday Fund was held at the Mansion House. On the suggestion of the Lord Mayor, it was referred to the General Purposes Committee to elect the council of fifty clerical, and the same number of lay members for the ensuing year. Canon Miller then drew attention to Rule 8, relating to the distribution of the Fund, whereby hospitals, etc., receiving grants are required to place at the disposal of the Council letters of recommendation equal in value to the subscriptions paid over to them. He proposed that the General Purposes Committee should consider the subject and report. Hospitals depended largely upon numbers of their tickets being unused, while the ministers of religion, into whose hands they went through the Fund, were the men of all others likely to use them. Professor Marks said the question had already occupied considerable attention, and the Rev. Dr. Kennedy observed that unless the principle of the rule was maintained, ministers, as was the case in some districts, would be driven off from the Fund in favour of collections for particular institutions. The Treasurer of the South London Dispensary, and the Secretary of the St. Pancras and Northern Dispensary, each complained of the injustice of the rule, stating that unless an alteration was made their institutions would probably decline receiving grants from the Fund. Ultimately the motion was agreed to, and on the proposition of the Rev. Mr. Fleming, seconded by Bishop Claughton, June 18 next was fixed for Hospital Sunday collections for the year 1876. Mr. Jabez Hogg said, as Dr. Manning had recently received a deputation in reference to the Hospital Saturday Fund, he might be in a position to make some communication to the meeting. Dr. Manning proposed an answer at a future time, it not being prudent to make any statement upon such a delicate matter then.

The Local Board of Hampton Wick, lately summoned by the Thames Conservators for neglecting to divert their flow of sewage from the Thames, have succeeded in obtaining six months' grace, in order that they may carry out the wishes of the Conservators.

Dr. Whitmore's recent expostulation on the state of the London streets would appear not to have been without effect upon the authorities of the district from whom he holds his appointment. Last week an important resolution was agreed to at the sitting of the Marylebone Vestry as regards the cleansing of the streets of that parish, the effect of which was that the Works Committee should at once consider and report as to the best means of superseding or improving on the present system. The members of the Vestry subsequently inspected the working of a patent horse sweeping and collecting machine, by which the mud, by means of a revolving broom, is swept into a receptacle, and thence carried up an elevated trough, and emptied into a cart attached.

At Marlborough-street Police-court, last week, the wife of a tailor was summoned by the Superintendent Registrar for the Westminster District for having caused a false entry to be made in the register of births. The prosecution was instituted under the sanction of the Registrar-General. There were two separate and distinct offences—one in the year 1873, when a false entry of the place of birth was made; and one in 1875, when another false entry was made. Although the Registrar-General deemed it a proper case for prosecution, he did not wish to persecute the defendant; it was therefore proposed to

proceed by indictment under the Act for the offence committed this year. A copy of the register was furnished to the vaccination officer, Mr. Boyce, whose duty it was to see that children were vaccinated. He called at the address given by the defendant, and was informed that no such person lived there. The defendant had, in fact, committed the offence because she was opposed to vaccination. In a similar case prosecuted at the Anglesea Assizes in July last the prisoner was sentenced to five years' penal servitude. The defendant in the present case said she was not aware she had done wrong. She had not acted from bad intention, because she did not know that she was breaking the law. The magistrate finally committed her for trial at the Central Criminal Court.

It is reported that Mr. Henley, eldest son of the Right Hon. J. W. Henley, M.P., and one of the Inspectors of the Local Government Board, is suffering from an attack of fever caught in the discharge of his official duties. Mr. Henley was taken ill at Coventry, but was enabled to reach his own residence near Oxford before the graver features of the malady manifested themselves.

Up to the present time we had indulged in the notion that hospitals, at least, were secure from the visits of burglars. On Christmas-eve, however, it would appear that a burglary was committed at St. Thomas's Hospital. The building is divided into nine blocks, the lower rooms being under the charge of the museum porter. On entering one of the sitting-rooms on the evening in question, this man found it in a state of confusion; the cupboards, and a large chest belonging to one of the medical officers of the establishment had been ransacked, and a large amount of valuable property carried away. Some of the other rooms had also been robbed. The matter has been placed in the hands of the police for investigation.

During Christmas-day and the Sunday following, the surgical officers of the various metropolitan hospitals were actively engaged in attending to an extraordinary number of accidents, many of which were due to, or perhaps it would be safer to say were attributable to, the culpable carelessness of the lower classes in strewing the pavements with orange-peel. In St. Thomas's Hospital, from Christmas-eve to Sunday night, upwards of sixty cases of street casualties were attended. One man received a severe scalp wound through a fall, and he remains in a very dangerous state; another man fell and broke his leg; and a woman was admitted with a broken arm from a similar cause. In St. Bartholomew's Hospital a number of casualties were attended, and the officials at Westminster, Charing-cross, and King's College Hospitals were fully employed.

Among the many symptoms of the general interest aroused by the Royal visit to India, we note that Messrs. Cassell, Petter, and Galpin have issued the first part of an "Illustrated History of India," which is to be uniform in price and style with their well-known "History of England." The first number is well printed, and profusely and admirably illlustrated, is a marvel for cheapness, and well worthy of the firm that publishes it. Mr. Stanford has published a handy map of India, showing the route originally sketched out for the Prince of Wales' tour, which is clearly drawn and of moderate price. And Messrs. W. and A. K. Johnston have issued a very good map to illustrate the travels of His Royal Highness; it is on the scale of seventeen miles to the inch, and, while well filled, is not overcrowded with names. Side by side with it is a map of England, on the same scale, showing the comparative sizes of the two countries; the route from England to India is also shown.

We may remind those of our readers who wish to take their children to scientific entertainments during the Christmas holidays, that Professor Tyndall, F.R.S., is now delivering his course of lectures, for juveniles, on Experimental Electricity at the Royal Institution. In these lectures Professor Tyndall illustrates the phenomena of frictional electricity, and so explains its principles that the pupil is enabled to repeat the experiments and to pursue the subject further at school or at home. The dates of the remaining lectures of the course are the 4th, 6th, and 8th inst., at three o'clock p.m.

DR. RICHARDSON'S LECTURES ON INDUSTRIAL PATHOLOGY.

In his third lecture on Industrial Pathology, delivered before the Society of Arts, on the 17th ult., Dr. Richardson specially considered the effects on health and life of the vapours of turpentine, ammonia, bisulphide of carbon, nitric acid, hydrochloric acid, aniline, and nitro-benzine. He also added a series of facts on the effects of the fumes arising from some metallic bodies, such as mercury and zinc. A part of the lecture which caused much interest was that which related to the effect of the vapour of the bisulphide of carbon on the life of the operatives who are daily employed in occupations in which the bisulphide is largely made use of. The vapour gives rise to a set of symptoms which are special, and to which no term indicative of any particular or previously defined disease can be applied. The symptoms were originally described by Delpech in the year 1856. They consist, in the first instance, of anæsthesia and intoxication, with irregularity of movement and giddiness. Afterwards, when they become chronic, the head is still much affected, and insanity of the melancholic kind has even been observed. The sense of taste is vitiated, the sense of sight troubled, the sense of hearing made obscure. The digestion is perverted, so that the appetite is increased even to gluttony, while nausea is persistent. The secretions are depraved, and the nervous enfeeblement, in the worst cases, is so great that the life of the sufferer is simply wretched. In the course of the second lecture delivered by Dr. Richardson, on "Dusts" as causes of disease, he pointed out a new fact which had been first observed by Dr. Cholmeley—viz., that hairdressers who are engaged in brushing hair by machinery are subject to extreme irritation of the bronchial passages, from the particles of hair which they inhale, and which are carried from the revolving brush straight into the face of the operator. Some men are obliged to decline the work in consequence of the injury which in this manner results. The Lectures on Industrial Pathology are suspended during the holidays. They will recommence on Friday, January 21, at the same hour, viz., 8 p.m.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the meeting of the Pathological Society of Dublin, on Saturday, December 18, the President in the chair, Dr. Hawtrey Benson showed the brain and heart of a girl aged twenty, who suffered from rheumatic fever three years ago. Permanent patency of the aortic valves was the result of a coincident endocarditis, and last August right hemiplegia suddenly occurred. An epileptic seizure followed in October; while a month later the left radial pulse, which had hitherto presented the usual hammer-stroke, all at once became weak and compressible. In December an attack of bronchitis carried off the patient. There were remarkably developed vegetations on the aortic valves; the left heart was excentrically hypertrophied: the left middle cerebral artery was the seat of embolism, and the corresponding corpus striatum and optic thalamus presented an extensive white softening and atrophy. An old clot in a different part of the brain had evidently been the cause of the epileptiform attack, and there was embolism of the left radial artery. Dr. James Little showed the ileum and colon of a woman aged thirty-two, who died on the twenty-third day of a fever which presented many of the features of both typhus and enteric. It commenced with a sudden onset; on the twenty-first day there

was an attempt at crisis; the nervous symptoms and prostration were those of typhus; there was a parotid swelling towards the close of life; the back was maculated; and the temperature ranges were at times unlike those of enteric fever. However, there was no typhus smell, rose-spots appeared on the chest, and the intestines were extensively diseased—the glands of the ileum being affected to the distance of nine feet above the ileo-cæcal valve. The colon was also much diseased, its mucous and sub-mucous tissues being swollen and red, as in dysentery. Dr. Bennett exhibited a remarkable specimen of a "mixed enchondromatous" tumour, which sprang from the surface of the internal condyle of the left femur of a man aged thirty-three. Drawings of the tumour were also laid on the table. Its growth was attended with intense pain—the exception in enchondroma. Amputation through the thigh-bone was practised after Sédillot's method, and the man recovered in a fortnight. The tumour was lobulated, and spared the articular cartilages in a remarkable manner. The cancellated tissue of the shaft of the femur was infiltrated, and the medullary canal was invaded by the growth. Its microscopical characters were those of mixed enchondroma undergoing calcification. Dr. Foot showed a drawing of a case of xanthelasma. The patient, who is at present in the Meath Hospital, was a woman, aged forty-one, mother of three children. Menstruation ceased when she was thirty-six. For three years she had been jaundiced from obstruction and distension of the biliary ducts. Nine months ago, symmetrical patches of xanthelasma, or xanthoma, appeared near the canthus of each eye, under the chin, and in many parts of the body on the aspect of flexion. Dr. Foot described the pathology of this rare skin affection, which was somewhat analogous to that of atheroma. He stated that about sixty cases of xanthelasma had been placed on record, although Hebra and Kaposi speak of only thirty.

BRITISH MEDICAL DEFENCE ASSOCIATION.

At a general meeting of the members of the British Medical Defence Association, held at the Guildhall Tavern, Gresham-street, City, on the 21st ult., Dr. B. W. Richardson, F.R.S., President of the Association, in the chair, the following additional vice-presidents were elected for the ensuing year, viz.:—Vice-Presidents: Dr. Herbert Davies; Dr. A. Ernest Sansom; Dr. C. J. White (Snodland, Kent); and Mr. Spencer Watson, F.R.C.S. Dr. Herbert Davies was unanimously elected Honorary Treasurer, and the following gentlemen were elected Members of the Council, viz.:—Dr. J. David Allen; Mr. F. G. Aubin, M.R.C.S.; Mr. J. E. Brooks, L.R.C.P. Edin.; Mr. R. H. S. Carpenter, L.R.C.P Lond.; Mr. Thomas Cooke, F.R.C.S.; Dr. Hugh Coulahan; Mr. W. H. Drew, L.R.C.P. Edin.; Mr. Sebastian Gardner, M.R.C.S.; Mr. W. Douglas Hemming, M.R.C.S.; Dr. W. B. Johnston; Dr. Percy Leslie; Mr. Norman C. Maclean, L.R.C.P. Edin.; Mr. J. Wallis Mason, M.R.C.S.; Mr. Matthew Reid, L.R.C.P. Edin.; Dr. Charles Royston; Dr. J. T. Slater; Mr. Walter Smith, L.R.C.P. Edin.; Dr. James Stevenson; Mr. G. Danford Thomas, M.R.C.S.; and Mr. Duncan Turner, L.R.C.P. Lond.

A PLAN FOR CHECKING DANGEROUS MISTAKES IN PRESCRIPTIONS.

At Vienna, and we believe throughout Austria, the druggists' shops annually undergo an official inspection. This year the Commissioners for the Austrian capital had to devote their special attention to the arrangements which had been made by the subjects of their visitation for complying with the new regulations, which will make the use of the metric system of weights and measures compulsory on January 1, 1876. One of the pharmaceutists visited was much commended by the Commissioners for a plan which he has introduced into his shop for avoiding mistakes in the dispensing of such drugs as are poisonous in small doses. This consists in indicating on the label of the jar or bottle the weight of the *maximum* pharmacopœal dose. In this way the dispenser is immediately warned if he meets with a prescription in which the maximum dose is exceeded, and he can take the necessary measures to assure himself against error. Orders have been given to introduce this system immediately into the shops of all the Vienna druggists.

TESTIMONIAL TO PROFESSOR APJOHN, OF DUBLIN.

On the afternoon of Wednesday, December 22, an admirable portrait of this distinguished chemist and man of science was presented to Mrs. Apjohn by Dr. Gordon, President of the King and Queen's College of Physicians, in the name of many of Professor Apjohn's friends and former pupils. The presentation was made in the hall of the College of Physicians, Kildare-street, Dublin. The portrait, which is a most faithful likeness, was painted by Mr. Thomas Jones, President of the Royal Hibernian Academy. Dr. Apjohn is represented in a sitting posture, arrayed in his collegiate robes, while on a table beside him are some books, Daniell's and Regnault's hygrometers, and the wet and dry bulb thermometers, with the use of which instruments his name is so honourably associated. The occasion of the presentation of this testimonial was Dr. Apjohn's resignation of the chair of Chemistry in the University of Dublin. He still occupies the chair of Applied Chemistry in that University.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The President of the Poor-law Medical Officers' Association—Dr. J. A. Lush, M.P.—has addressed a circular-letter to all medical gentlemen holding office under the Poor-law Department of the Local Government Board, inviting their support, and soliciting their co-operation in carrying out the programme of the Association. The Association has already done much good work in elevating the status of the Poor-law Medical Service and in redressing its grievances, but much more remains to be accomplished. In order to achieve success, the assistance of all who are engaged in the Service is necessary, and we shall be glad to hear that the appeal of the President has been the means of largely increasing the number of members of the Association.

A CHILD SCALDED TO DEATH IN A BATH.

A sad occurrence is reported as having taken place at the Children's Hospital, in Great Ormond-street, on Christmas-day. A nurse, named Elizabeth Williams, was instructed to give a child, two years of age, a warm bath. The nurse put the child in the bath, but neglected to ascertain the temperature of the water, which, being very hot, scalded the child so severely that it died on the following morning. An inquest has been held on the body, and a verdict of "Death from misadventure" returned. The nurse was cautioned not to be so careless in future, and it is to be hoped that the case will serve as a warning to other hospital nurses not to neglect using the thermometer before placing infants in warm baths.

HEALTH OF SCOTLAND.

The Registrar-General has issued his report for Scotland for the month of November. The return for the eight principal towns is again favourable, as it was last month. The deaths registered were 2465, or 270 below the November average for the last ten years, allowing for increase of population. The (annual) death-rate ranged from 20 per 1000 in Perth to 36 per 1000 in Greenock, the mortality in this last town being again far above that of any of the other of the eight towns, 64 per cent. of its deaths being of children under five years of age. Amongst the deaths two were recorded from delirium tremens, and seven from intemperance. The births registered were 3545, or more than 100 above November, 1874, and more than 500 above November, 1873. The marriages registered

in the eight towns during November numbered 1086, or 49 above the November average, allowing for increase of population.

THE HASTINGS SANATORIUM.

THE Hastings Urban Sanitary Authority have, we believe, been obliged to give up the house they have been using recently for the reception of cases of contagious disease, on account of its being dangerously near other houses and the public footpaths. It is now proposed to utilise a house situated in the adjacent parish of Ore as a sanatorium; but the inhabitants of that parish have held a meeting to protest against the proposal being carried out. It was decided to petition the Local Government Board on the subject, and to ask them to send down an inspector. We have no means of judging whether or not the objections raised are well founded, but we shall be glad to hear that the Urban Sanitary Authority have succeeded in getting a suitable building for use as a sanatorium. We are glad to hear from Mr. Charles Ashenden, the Medical Officer of Health for Hastings, that though two cases of small-pox, as we read his letter, have been imported into Hastings from Dorchester, one from Eastbourne, and one from London, the sanitary arrangements have fortunately saved Hastings itself from an epidemic.

FOREIGN APPRECIATION OF LISTER'S METHOD.

A PAMPHLET(a) has just been issued by Professor Nussbaum, of Munich, in which he compares the past and present condition of the treatment of wounds in his clinic, and describes the successful results which he has obtained there since the introduction of the antiseptic method. So convinced is he of the absolute necessity of compliance with Lister's rules, that he reports in full the most minute details of the treatment of eight cases as a model for the assistance of others. The last chapter is entitled, "The Indispensableness (*Unentbehrlichkeit*) of Lister's Method in Peace and War, in Private and in Hospital Practice." Professor Nussbaum calculates that, although Lister's treatment is expensive, owing to the high price of materials employed in it, yet that it is in the long run the cheapest of all methods for hospital use, owing to the much shorter period which the treatment requires.

SEVERE EPIDEMIC OF MEASLES AT EXETER.

THE city of Exeter has been visited by an epidemic of measles of a very severe and fatal character. Out of a total of 135 deaths which took place in the city during the month of November, thirty-five were due to measles. Fortunately the disease has now almost entirely disappeared.

GLASGOW UNIVERSITY COURT.

WE understand that the Glasgow University Court have agreed to recognise Dr. David Foulis as an extramural lecturer on Pathology in the Glasgow Royal Infirmary, whose lectures shall qualify for graduation in medicine in the University of Glasgow. Dr. Foulis proposes to give a summer course of fifty lectures next summer.

DISCUSSION ON SYPHILIS AT THE PATHOLOGICAL SOCIETY.

MR. JONATHAN HUTCHINSON will open a debate at the Pathological Society upon certain points in the pathology of syphilis at the first meeting in February; and an outline of the points to be especially dwelt upon will be laid before the members at the first meeting in January.

HOSPITALS IN PARIS.—All the hospitals in Paris are about to be connected by a telegraphic wire to the central office of admission, placed at the Hôtel-Dieu. The object is to keep the authorities acquainted with the number of beds vacant at the various institutions, and thus economise the fatigue and injurious transport of the sick.

(a) "Die Chirurgische Klinik zu München im Jahre 1875." Stuttgart, Verlag. von Ferd. Enke, 1875.

MORE NOTES ON WINE AND SPIRITS.

(*Continued from page* 689, *vol.* ii. 1875.)

DISTILLED SPIRITS, WITH AND WITHOUT ADDED FLAVOUR—BRANDY AND WHISKY—NATURAL BRANDY UNCOLOURED—COMPOUNDS AND CORDIALS INVENTED IN THE MONASTERY AND STILL-ROOM—CHARTREUSE.

IN the two preceding papers the nature of pure light wine and of "liqueur" or fortified wine has been discussed. Now we come to distilled spirits, which have been known in Europe familiarly and increasingly since the middle of the sixteenth century. Without going into the commonplaces of the matter, we may say that they consist of the alcohol derived from some fermented liqueur, either with the flavour solely derived from the fermenting substance or with flavour superadded. Brandy and whisky are examples of the former kind; gin, compounds, cordials, and "strong waters," of the second.

The first in use and dignity is brandy—that spirit distilled from wine, which has caused all distilled alcohol from any source to be called, in popular language, "spirit of wine." The best variety is that distilled from the white wine made from the white grape, which grows in prodigious abundance in the Champagne district of Charente, whose capital is Cognac. (This Champagne district must not be confounded with the district of the same name in the East of France, which gives its name to sparkling wine.) Hence, "fine Champagne" is the name of the choicest brandy. This spirit is colourless, save that in time it acquires a slight yellowish or straw tint from the casks in which it is kept.

Of whisky, distilled from corn or malt, I need not speak further than to say that both the Scotch and Irish are excellent in their way, but they are inferior in delicacy to good brandy, and, although excellent in their native countries, do not agree so well with the denizens of the South. Nor need I mention maize spirit, potato spirit, or beetroot spirit, for they now are never used unmixed and under their own name.

Now, whereas wine, whether natural or fortified, contains a large share of vegetable matter, which may offend a feeble stomach, so the place of brandy and whisky, which should consist of nothing but spirit, flavour, and water, is to act as a stimulant pure and simple. If there is the least question about the power of digesting sugar, or acid, or any of the ingredients in natural or fortified wine, or if the stomach and bowels be enfeebled or irritated as in fever, then we give spirit, of which brandy is the best kind.

But here a question arises. All the brandy in the ordinary market is coloured artificially with burnt sugar,—some very slightly, which passes as "pale brandy," and is intended to imitate the tint acquired through age in cask; other kinds very deeply, as in the case of the old-fashioned dark-brown brandy. Now, considering that the reason for using brandy is to get rid of saccharine and other substances requiring digestion, it seems highly inconsistent to add sugar to the spirit, just to please the eye. Surely an uncoloured, unsweetened spirit would be the thing for diabetes!

The very finest brandy I ever tasted had the merest straw tint, and no artificial colour whatever. The Englishman likes his veal white and his brandy dark; but both are better without any tampering with their colour. I have reason to believe that Mr. Denman is about to bring the pure, colourless brandy to the notice of the medical profession. I have had some myself from the house of Boulestin, of Cognac.

As a matter of curiosity, I may allude in passing to the manner of imbibing a glass of fine brandy, or other cordial, so as to get the flavour in its greatest intensity. Brace the lips into two parallel semicircles, and bring them as close together as possible, without touching. Then draw the liquid very slowly between the lips, so that it may reach the tongue in the thinnest possible layer mixed with air. This is what the French call *humer*. The word frequently occurs in Erckmann-Chatrian's works.

So much about the chief kind of spirit, with its own flavour derived from the still and matured by age. But there next require to be noticed a vast variety of compounds, to which various flavouring materials are added, sometimes in small quantity, sometimes so largely that the spirit merely serves as a vehicle for the flavour. The origin of these compounds is twofold: either they are the produce of the monastery or of the apothecary's shop. We must remember that the apothe-

cary, or chemist, is a creature of quite modern date, and was developed out of the grocer, by a process of division of labour, in the reign of James I. Before the Reformation the laboratories in the monasteries were the places where pharmacy was preserved from extinction, and where "simples"—*i.e.*, vegetable remedies—of all kinds were collected and cordials concocted, not only for the use of the convent, but for the poor who clustered around it, and looked to it for help against evils physical and moral. The same is true of the still-rooms, which formed part of every nobleman's establishment, where my Lady Bountiful occupied herself with simples and cordials, just as the monks did. The still-room still survives in great houses, but the only cordials made are tea and coffee. They distilled spirit or, as they called it, "life-water" from wine, and then made a series of "strong waters," in which the spirit was the vehicle of some vegetable aromatics. The *aquæ fortiores* were made with spirit, whilst the *aquæ simplices* were mere distilled water impregnated with flavours. Hungary water, "Arquebusade" (so called because believed to be good for gunshot wounds), and Eau-de-Cologne are examples of the strong waters. Monasteries still keep up their manufacture of cordials, for the sake of revenue; and, as the most illustrious example, we may point to the *Chartreuse*, the king of liqueurs, still made at the Grand Chartreuse Convent; whilst in modern France the cordials made at the various convents are placarded, and recommended by handbills and other kinds of advertisements. The pharmacy of Sta. Maria Noveles, at Florence, is still celebrated for the delicacy and purity of its preparations.

(*To be continued.*)

FROM ABROAD.

Stricture of the Urethra in the Female.

In a paper contained in the *American Journal of Medical Sciences* for October, Dr. Newman, of New York, comments upon the little notice that has been bestowed upon this subject by the writers on urinary diseases. Careful research has enabled him to find few cases on record; but he has himself met, during the last eighteen months, with the unusual number of four well-marked instances. Believing the disease to be of much more frequent occurrence than the neglect of it by writers would lead one to suppose, and also wishing to show the adaptability of electrolysis as a means of treating it, he relates these cases at some length, as well as a fifth case of spasmodic stricture similarly treated. For the details we may refer to the paper itself, but may state the conclusions which Dr. Newman arrives at, which are as follows:—Of the four real organic strictures, two were inflammatory and two fibrous. One of them was due to syphilis, another to irritation produced by injections for gonorrhœa; a third arose from granular urethritis, a sequel of confinement, and probably aggravated by uterine displacement; and the other was due to urethritis following menorrhagia and metritis. The spasmodic stricture was caused by reflex irritation induced by an ulcer of the rectum. The seat of stricture was at various parts of the canal, in one case involving almost the whole urethra; and the amount of obstruction varied from slight diminution of the calibre of the canal to almost complete atresia. Electrolysis is claimed as the sole agent of cure in these four cases, all of which had previously been treated by other means without any success. To the argument that in an organ so easily dilatable as the female urethra, treatment by dilatation ought to have sufficed, it may be replied that the organ is thus dilatable only in its normal condition, but that when inflammation, fibrous bands, or atresia are present, dilatation becomes impossible. The patients thus treated by electrolysis have also remained under observation, and no relapse has taken place. Dr. Newman attaches great importance to the examination by the endoscope.

Nitrite of Amyl in Angina Pectoris.

We may refer to the same number of the *American Journal* for an interesting paper by Dr. Osgood, of Philadelphia, on angina pectoris, in which he relates five cases that have come under his notice, and testifies to the great utility of the nitrite of amyl in treating the affection. After a concise and careful review of what has been previously written on the nature of this painful affection, he says—

"I have presented many conflicting opinions as to the nature of angina pectoris; but, supported by the judgment of acute and reliable observers, I have endeavoured to show that the disease neither necessarily depends upon cardiac affections, nor is confined to middle and advanced age, as is asserted by various influential writers. There may be a functional as well as an organic form of the angina, although I prefer to believe with Laennec and Trousseau, that even when a paroxysm occurs as a complication of heart disease it is rather a coincidence than a symptom, for the majority of cases of disease of the heart do not experience attacks of angina. Finally, I wish to urge upon physicians the great value in this malady of the nitrite of amyl. It is nearly invariably certain in its relieving effects; acts almost at once; is quickly, easily, and (with proper caution) safely given; and spares both patient and physician the tiresome, often ineffectual, use of the scores of remedies that are mentioned in the books. In my hands this remedy has proved equally effectual in asthma (except when the patients have been in extreme old age), as well as in the spasm of colic, in which I have used it with success in two cases. I would resort to it in any form of spasm; and I may add that since my paper was in type I have met with the happiest results in treating a case of obstinate spasm of the diaphragm by the same means."

In another part of his paper, Dr. Osgood says—"I find that many physicians lack the courage to use so powerful a remedy. This fear I believe to be ungrounded. I have never yet seen the slightest ill-results from its use, notwithstanding the enormous doses required in my first case. If my patient be a novice in the remedy I begin with one or two drops, and, watching the effect, increase the quantity until it gives relief. With the exception of one case, in which I used the remedy in nearly drachm doses, I have never been obliged to exceed eight drops at one inhalation. My habit during its administration is to keep my finger on the pulse, and watch the *nose* of the patient. The pulse commonly runs up to 120, 130, or 140; and at the same time the nose, and afterwards the face, becomes deeply flushed. So soon as the nasal flush appears I at once remove the handkerchief, even though the pulse be not greatly accelerated. Following this course, I have seen nothing but relieving effects. Headache of considerable intensity sometimes temporarily sets in, but should not be considered (unless unbearable) until the heart becomes relieved. Under the effects of this remedy the patient occasionally suffers a general but transient discomfort. Those who wish detailed information concerning the physiological action of the nitrite may find it in the valuable and interesting paper by Prof. H. C. Wood, jun., in the number of this journal for July, 1871."

On the Hygienic and Therapeutic Place of Extract of Meat.

Under the above title Prof. Bouchardat communicates the following article to the *Bulletin de Thérapeutique* for November 30:—

"There has prevailed much exaggeration in two opposite directions in the appreciation of the hygienic and therapeutic properties of the extract of meat. Its most ardent advocates pretend that this extract faithfully represents the corroborative alimentary properties of meat, while its detractors regard it as a substance of doubtful utility, and which may, even under the conditions of exaggerated doses, or too continuous administration, become an injurious aliment, capable of producing poisonous effects. In order to remain within the bounds of truth, it is necessary to render as exact an account as possible of the composition of this alimentary product, and to estimate without passion or prejudice the results of the numerous observations that have been made on the employment of the extract. It contains numerous immediate principles—gelatine, various modifications of albuminoids, inosite, dextrin, glucose, creatine, creatinine, urea, sarcine, carnine, lactic and inosic acids, and among salts the chlorides of potassium and sodium, and various phosphates. Most of the immediate organic principles which it contains are in process of disorganisation, and thus, like creatine and creatinine for example, only traverse the economy, the whole being discoverable in the urine.

Extract of meat can in nowise be compared, as regards its corroborant effects, with the *juice of raw meat* obtained by cold pressure. This latter aliment is of the greatest service in many anæmic conditions, and I have employed it many times

with great success when meat itself was refused. It contains albuminoid matters in the condition most favourable for assimilation.

The following are the indications which may be usefully fulfilled by the extract of meat:—With appropriate vegetables and bones it may serve for the preparation of an agreeable soup, which, taken in proper quantities, may suit persons in health and convalescents. The salts and bases which it contains are necessary for the constitution of muscle, and when there is an insufficient animal alimentation muscle here attains its elements of reparation. I lay stress upon the expression "in proper quantities," for the useful part which the extract can play is limited, and given in excess it does injury. Several of the alkalies which it contains, and especially the chloride of potassium, even in moderate doses, as Stuart Cooper and myself (*Annuaire de Thérapeutique*, 1848) have experimentally demonstrated, may become poisonous. These salts, and the different immediate principles, possess a diuretic action, which is also met with in the extract of meat, —an action which in certain morbid conditions may be made use of.

"The extract of meat also seems to me to be strongly indicated to supplement the rations of seamen submitted almost exclusively to the use of salt meat. It contains, in fact, immediate soluble principles and the chloride of potassium, which meats abandon to the brine in the process of salting. It is thus evident that the part which the extract of meat can play is but a limited one, and that a great error will be committed by those who endeavour to build up the strength by the employment of large quantities of this preparation."

REVIEWS.

The Diseases of the Heart and of the Aorta. By Thomas Hayden, Fellow of the King and Queen's College of Physicians; Physician to the Mater Misericordiæ Hospital; Professor of Anatomy and Physiology in the Catholic University of Ireland; Member of the Royal Irish Academy; Corresponding Member of the Academia Fisio-Medico-Statistica of Milan, etc., etc. Dublin: Fannin and Co., 41, Grafton-street. London: J. and A. Churchill. 1875.

Whether (as the author pertinently asks in his preface) an addition to the numerous extant treatises, British and foreign, on diseases of the heart were really required at the present moment, we do not undertake to determine. But, conceding the necessity, the volume of Dr. Hayden is bulky enough to satisfy the keenest literary appetite. Its form is certainly not one of convenience, but this perhaps unavoidable defect may be more than compensated by its intrinsic excellence. It cannot lay claim to any great amount of originality, being to a considerable extent an embodiment of the experience and views of various writers on cardiac pathology. Indeed, the reader is literally oppressed by the numerous citations; there is a veritable *embarras de richesses*. Still, from the historical point of view, the work is by no means complete, though as far as it goes it is confessedly a clear and comprehensive digest of the subject-matter. But, for the reason above alluded to, much of general criticism is superfluous, as it would consist in rediscussing tolerably well-known views, which the author has already done.

The commencement of the treatise is concerned with the descriptive anatomy of the heart, vessels, and nerves. This portion is treated in the ordinary manner, so that it is unnecessary to dwell much upon it. The only point that strikes us is, that in describing the circulation and the passage of blood from the cavæ and pulmonary veins into the heart, insufficient stress is laid upon the function of the muscular layers these veins possess, derived from the auricles. So marked is their rhythmic action in animals, and most probably in the human subject, that it might be asserted that each cardiac revolution commences, as in the frog, rabbit, cat, and dog—not by the systole of the auricles, but by that of the terminal portions of the great veins opening into them. Such is the view, derived from repeated careful experiments, of Vulpian, to whose most valuable lectures upon the "Vaso-Motor System" it is matter of surprise that no reference is made in any portion of the work.

The normal development and anatomy of the heart is naturally followed by its physiology. Discussing, first, the origin of its contractile power, and Haller's doctrine of direct stimulation independent of nervous influence, according to the author the following dilemma seems to arise:—"Either there is involved the admission of a pre-existing force to set the blood in motion, ere the chambers of the heart could have been excited to contract by contact with it; or, that the blood having been primarily formed in the heart itself, the property of irritability, by which its presence there was resented on the occasion of the first, as of all subsequent contractions, was, at the outset, *suddenly* conferred upon the organ." But would not the study of the development of the fœtal heart, as given in the extract from "Quain's Anatomy," have sufficed to keep clear out of reach of either horn? The cells of the fœtal heart, even before muscular tissue is fully formed, undergo rhythmic motion, and although subsequently regulated by the cardiac ganglia, this rhythm is continuous, so that some kind of circulation, however irregular, must have gone on. In the adult subject, again, the exquisite sensibility of the endocardial membrane is beyond all doubt. Bernard observed, during an experiment on a dog, that even the accidental contact of a thermometer with this membrane instantly quickened the action of the heart.

However, the organ once set going, its nutrition is next considered, more particularly in reference to the precise period of the blood-supply. The views of Brücke regarding the injection of the coronary arteries are detailed. It might have been mentioned that, long since Brücke wrote, this matter has been submitted to direct experiment by several physiologists, and quite opposite conclusions drawn. Among them, those set forth in the memoir of Ceradini should be especially alluded to.

As concerns the cessation of the heart's action by arrest of the coronary circulation, after giving the results of Erichsen's experiments on the influence of ligation of these arteries, and Schiff's statement that paralysis of given areas is induced by ligation of the artery affording the supply, it is affirmed, on the authority of Ludwig, E. Cyon, and the late Von Bezold, that such ligation does not interfere with the contractions of the heart. But the statements of Erichsen and Schiff are supported by the more recent experiments of Vulpian, which prove that on injecting into the arteries spores of lycopodium, tobacco grains, etc., although the heart's action is not suddenly arrested as by faradisation, still, after a few moments, the contractions come to a standstill.

Notwithstanding the present amount of knowledge respecting the innervation of the heart, the opinion of Longet (as quoted by the author) holds good:—"We admit, nevertheless, that new experimental researches are necessary, in order to determine the precise laws of the innervation of the heart." For example, the difference between Schiff and Rutherford is still to be reconciled, the former maintaining that the vagus possesses a few accelerator fibres. So, also, as concerns the influence of the vagi over the vessels of the heart, Brown-Séquard's view being that the pneumogastric nerves are the true vaso-motor nerves of the heart; Vulpian, on the other hand, states that the vaso-motor nerves of the myocardium do not appear to be contained in the vagi of the dog. Faradisation, even intense, of these nerves produces no sensible changes in the state of the cardiac vessels; neither is any change perceived in them when faradisation is applied either to one of the inferior cervical ganglia (left) or to the branches issuing from it, while, on the other hand, faradisation of the vagi arrests the cardiac contractions in animals like the frog, whose myocardium, so to speak, is void of vessels. Thus Longet and Vulpian are, to a certain extent, in accord when the latter affirms "that we know nothing positive relative to the action of these fibres on the vessels of the heart."

Before quitting the subject of the physiology of the heart there is one point to allude to bearing upon the mode of closure of the auriculo-ventricular valves. It would seem to be, and really is, an omission in a work attempting to treat its subject historically, to have left unnoticed comparatively recent theories respecting the manner in which such closure is effected.

Objections to the inferences drawn by Chauveau from his experiments have been taken not only by Kohl, but independently, by Spring and Onimus, and many others. These experimentalists, on the application of the finger to the closing valve in a similar manner to that adopted by Chauveau, drew a diametrically opposite conclusion as to the form the valve assumed. Such objections demanded the most careful consideration, especially when supported by anatomists and physiologists so distinguished as Pettigrew and Béclard.

The list of various inquirers into the *genesis* of arterial and venous murmur is tolerably full and historically interesting. But the names of Kiwisch, T. Weber, and E. I. M. Colet ought certainly to have found place. The experiments of the last-named investigator were important. By means of an ingeniously constructed apparatus, he was enabled to estimate the intensity of the current circulating in tubes; as Heynsius, by the introduction of particles of amber held in suspension in fluids contained in glass tubes, was enabled to show the site of production of the murmur, and further enabled the peculiar direction of the current conveying the sound to be noted.

Having thus far discussed the general theory of murmurs, the author passes on to the consideration of the more specialised forms. The one which has, of late, much attracted the attention of English auscultators, is that commonly designated as "*presystolic*."

Much consideration is bestowed upon this physical sign of mitral constriction; and rightly so, for here the author can speak with some show of authority, having, it seems, made it a subject of long and patient study. He correctly states that it had not a true *locus standi* with us until after the publication of Dr. Gairdner's paper. Nevertheless, it had long been recognised abroad; and the author deals out but scant justice to some of the observers. Forget (1851), a *clinicien* of consummate excellence, was well aware of its occurrence, though perhaps he was in error in not assigning to it the importance it merits, thinking it might at times be confounded with a soft murmur of aortic insufficiency; and even now such a view has the strong support of Marey. Woillez (1862), writing of this murmur, after noticing Fauvel's paper, states (and he ought to know something of the matter) that it was previously known both to Gendrin, and Barth and Roger. Frederich, again, whose treatise on "Diseases of the Heart" was published in 1861 (and not, as stated by the author, in 1867), was very far from writing of this murmur in the vague manner attributed to him. He clearly enough remarks—"In other cases the constriction is revealed by a *presystolic* murmur, which passes immediately into the systolic murmur of insufficiency, so that a long murmur commencing just before the heart's impulse, and terminating with the second sound, characterises the double lesion." And this is true of the great majority of cases. But, however it may be, it is quite certain that cases of mitral constriction occur, and perhaps not unfrequently, in which not alone is all persistent murmur absent, but the rhythm of the heart is so deranged, and the sounds of so indeterminate a character and so obscured at times by râles, that no possible judgment can be formed from mere physical valve-signs; but the lesion must be *inferred* from the amount of general venous stasis and its accidents, dependent upon the gorged state of the auricle.

It is doubtful whether the pulse, even in the early stages, is, as stated, usually quite regular. There is much variety in this particular. As Lorain observes, "There is no pulse special to the disease."

Passing on to the body of the work, concerned with particular maladies, we must endeavour to seek from among the mass of opinions the *personnel* of the author—that is to say, such views as he adopts, and for which he may therefore be considered responsible.

The cases are prætermitted save to remark that they are all well described and well illustrate the diseases they concern. As the pathology of endocarditis furnishes the key to many important positions, it is here we first break ground.

We are by no means disposed to endorse the opinion of the author "that acute aortic valvulitis, save as a result of mechanical injury, must be regarded as exceedingly rare and quite exceptional." This statement is entirely opposed to the general experience; indeed, his own detailed cases of diseased aortic valves tell precisely the reverse. In nine cases out of twenty-four, a history of rheumatism is noted. He would also find in the statistics of one of his authorities (Dr. Barclay) the following results:—In one table, out of fifteen cases where the patients had suffered from acute rheumatism, both aortic and mitral valves were diseased in thirteen; and in a second table of thirty-five cases ascribed to rheumatic endocarditis, both aortic and mitral valves were affected in twenty-eight cases. The statistics, too, of Dr. Peacock, another authority, point in the same direction. Does he not say "mitral valvular disease, when existing without any serious affection of other valves, and mitral and aortic valvular disease combined, originate in by far the largest proportion of cases in rheumatism"? to say nothing of similar results obtained by others. In short, the double lesion is exceedingly common in rheumatic endocarditis, so that the affections of the aortic valves apparently stand out in two groups—one directly connected with rheumatic endocarditis, occurring at nearly all periods of life; the other mostly connected with either strain or injury, and the atheromatous change of later years.

The divergence of opinion is yet more wide when the author describes his treatment of endocarditis. We should have thought that daily leeching and rapid mercurialisation belonged to the past, and (at least as the rule) had been long replaced by measures less heroic, though probably far more successful. Take the results of the alkaline treatment, if not originated, at all events so strongly enforced, by the late Dr. Furnivall. There are no sufficient grounds for supposing that mercury either prevents the supervention of inflammation of the lining membrane of the heart and its capsule (as Taylor long ago demonstrated), or modifies its course when present. While, on the other hand, there is the positive teaching of experience that it is often directly and permanently injurious by the debility and irritability it induces. The author states, elsewhere, that he has not had the good fortune to meet with more than *one* case of perfect cure out of some hundreds. If these cases, or any large proportion of them, were treated by the author on the plan he advocates, it does not speak favourably of its superiority. We think, also, that where great restlessness and cardiac distress exist in acute cases, more immediate and permanent relief is afforded by hypodermic injection than by sedatives administered by the mouth.

The depletory and mercurial treatment is also recommended for symptoms supposed by the author to characterise subacute aortitis. Such symptoms might bear a different construction. At all events, the symptomatic evidence would require to be supplemented by the post-mortem verification, and without it would only attain to a certain degree of probability. The symptoms of aortitis existing *per se* have been so very differently given by different observers, that we venture to affirm that at present no positive diagnosis is attainable.

In the treatment of many forms of disease of the heart, the combination of tolerably full and frequent doses of iron and digitalis is recommended—a combination often of remarkable efficacy. But the author does not appear always to have had prominently before him the very frequent co-existence of persistent gastro-intestinal catarrh, a condition often preventing tolerance of these agents. Under such circumstances ten to fifteen drops of tincture of perchloride of iron every third hour will frequently occasion colic and diarrhœa; and even digitalis at times, we know not why, will often further trouble instead of calming the disturbance of the heart.

Cold bathing in any form seems to us contra-indicated in almost every case without exception in which organic disease of the heart is known to exist. We would once again revert to the gastro-intestinal catarrh so common in the latter stages of cardiac disease—a condition which not only calls for constant supervision, but which, when exaggerated by dietetic error, is the immediate exciting cause of the most alarming paroxysms of cardiac asthma; and, by the way, considering the frequency and truly alarming intensity and duration of the paroxysms, it is regrettable that this affection is so scantily and insufficiently treated in a work *ex cathedrâ* on cardiac diseases: it falls very far short of an excellent clinical description lately given in the small compass of a lecture,—a description which recalls forcibly the graphic picture drawn years ago by Bouillaud.

Hypertrophy of the heart is well described. But in stating its various causes—among them, that form alleged to be produced by pregnancy,—there surely must be some chronological error in making *Larcher*, not *Lacher*, write as far back as 1828. The confirmatory observations of Ducrest, extending to one hundred cases, receive no mention.

In the treatment of hypertrophy, the author gives, "if the cardiac excitement be chiefly nervous," from ten to thirty minims of tincture of Indian hemp every second hour, or five minims of tincture of aconite. We quite agree with him when he states that the action of these agents ought to be carefully watched.

The literature of myocarditis is not sufficiently fully given, inasmuch as, considering the paucity of our knowledge of this affection, the researches of the late Dr. Demme, valuable as they unquestionably are, find no mention.

In connexion with the pathology of myocarditis, some consideration should have been bestowed upon simple congestion

of the tissue, a condition to which much attention was paid by Wardrop in his treatise "On Diseases of the Heart." Looking to the importance of the vascular supply, and the great liability to congestion in disordered states of the circulation, it may be readily imagined that long-continued or frequently recurring stasis may here, as in other organs, initiate fibroid, fatty, and other degenerative changes of the cardiac walls.

The chapter on fatty degeneration may be truly said to be exhaustively given. We would only add what, doubtless, the author would admit, that it is unwise to venture on a positive diagnosis unless the case had been long under observation, and the signs and symptoms in the main unchanged. A heart simply weak, or one with congested walls, may so deceive, even after several explorations. And certain it is that, in some cases where we might feel ourselves justified in anticipating fatty change, none such, at least to any decided amount, is detected after death; while in other cases where no symptoms, or scarcely any, existed, marked degeneration is subsequently revealed.

Thrombosis of the chambers of the heart is, beyond doubt, one of the very gravest accidents that can occur in its various diseases. It is one which has arrested the attention of pathologists from comparatively remote times. But, exception made for embolism of the pulmonary artery, we do not think that during life the occurrence of the accident can always be as confidently diagnosed as appears to be considered. At least, as occurring under our own observation, we have known, twice in the same case, nearly all the symptoms the author regards as characteristic produced during an alarming attack of cardiac asthma. However, the symptoms the author mentions ought always to put us on our guard as to the possible formation of thrombus.

Regarding the physical signs of insufficiency of the aortic valves, the author speaks of Dr. Walshe's statement that he never met with diastolic fremitus but once. Notwithstanding this statement, it does unquestionably occur. The author has omitted to mention the intermittent crural murmur of Duroziez.

Insufficiency of the pulmonic sigmoid valves is, as the author remarks, no doubt whatever, extremely rare; yet more cases are recorded than he seems to be aware of. Ten or twelve at least have been noted—viz., those of Kolisko, Klob, Benedikt, Dietl, Von Wahl, Gordon, Whitley, Willigk, Duchek, Begbie. In treating of the valvular diseases generally, it might have been well to have considered more *in extenso* the modifying influence of double valvular lesion of a chamber. Here the author might have taken a hint from Forget and several later writers.

The description of the malady known as exophthalmic goître is interesting, and the general characters of the disease well delineated, but we miss the recent observations and criticism of Vulpian as regards its pathology. This distinguished physiologist has shown that out of four post-mortem examinations (one by Ranvier), no morbid changes were discovered in the sympathetic ganglia. He is therefore of opinion that the true pathology of the disease has not been up to the present time sufficiently well ascertained.

The subject of aneurism, it remains to add, is thoroughly well treated.

Such are the conclusions we have arrived at after a careful perusal of Dr. Hayden's treatise. It is one over which a very considerable amount of labour has evidently been expended—one which, within certain limits, fairly well reflects the existing aspect of cardiac pathology, and which may always be profitably referred to with respect to many of the vexed questions incident to its subject. But we still maintain that on the historical side it is not sufficiently inclusive; on the clinical side it is far too diffuse, and cannot compete either with the last edition of Walshe, or the admirable work of Von Dusch, which deserves a far wider circulation among us than it has hitherto had. But we look with interest to the forthcoming volume of Ziemssen's handbook.

A Committee of Justices of the County of Lancaster, appointed to consider the Adulteration of Food Act, have advised that a public analyst be appointed for the county under the provisions of the Act of 1875, at a salary of £300 per annum, and 6s. for each certificate, and reasonable travelling expenses when required to give evidence; such analyst not to act for any other county, or for any borough or place out of the county.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

December 20, 1875.

Diminished Support to Medical Charities—Proceedings of the Medical Institution.

The medical charities of this town have not yet recovered from the depressing effect on their funds caused by the very large bequest of the late Mr. Roger Lyon Jones. Rather more than twelve months ago Mr. Jones left the great bulk of his very large fortune in trust to two executors, to be divided at their discretion among the Liverpool charities. As he had invested capital in a variety of undertakings, it was felt that a long time must necessarily elapse before the entire property—amounting, it is thought, to some £300,000—could be realised, and that, in the meantime, the charities might suffer, owing to a general belief that they had been in some measure rendered independent of aid from the public by so large an addition to their means. This anticipation has been fully realised. The bequest, which was made shortly before "Hospital Sunday," was followed by a very notable falling-off in the amount of the collections, and as Mr. Jones's estate has not yet been realised, and consequently no distribution made, the deficiency thus caused was severely felt by some charities, and had to be made up by extraordinary exertions. In other ways the depressing effect was felt. Some preliminary steps were being set on foot just previous to the bequest to erect an eye and ear infirmary that should be worthy of the town, the present building in Mount Pleasant being altogether inadequate to meet the demands made on it. These steps were at once retraced in consequence of the anticipated grant; and, as no grant has yet been made, nothing has been done in the matter. Considering the immense amount of work done at the institution, of a kind that cannot be so well done, if it can be done at all, in the general hospitals, it is not creditable to a wealthy town like Liverpool that it should remain in its present condition longer.

The Liverpool Medical Institution has undergone great development of late. It numbers now over 150 members and associates, and is the centre of much intellectual activity concerning all that relates to medical or surgical interests.

Among other interesting communications brought forward at its fourth meeting, on the 18th ult., were three cases, of which I give somewhat detailed notes. The first was one of intussusception of the whole of the colon in a young child, who had been attended by Dr. P. M. Braidwood. A. E., aged three years and a quarter, was seized, at about 6 a.m. on November 1, with pain in the abdomen, having been up to that time apparently quite well. Shortly afterwards she had diarrhœa, passing blood in the motions. She ate largely at breakfast, took a slight dinner, and passed a good deal of blood per rectum during the day. At 10 p.m., when Dr. Braidwood first saw her, there was no abdominal distension, but tenderness was complained of over the left half of the abdomen. She died at 1 a.m. on November 2, within twenty hours of the first appearance of the symptoms. At the autopsy, thirty hours after death, the small intestine was found to be distended by gas, but no colon was seen until the left side was examined, when all the ascending and transverse portions were seen to be completely telescoped into the descending colon and the sigmoid flexure, the parts being deeply congested and of a chocolate colour. A portion of the ileum about a foot in length immediately adjacent to the cæcum was found twisted on itself, and its coils agglutinated by lymph. The middle lobe of the left lung was solid and livid from congestion.

The second case was one of perforation of the vermiform appendix, with malformation of the cæcum. Its details are as follows:—J. S., aged twenty-two, was quite well on Saturday, November 13. On the following day, being troubled with constipation, he took pills and castor oil, the latter of which was vomited. Getting no relief, he sent in the evening for Dr. A. H. F. Cameron, who found him much distressed by abdominal pain and distension, with a rapid pulse and anxious countenance. A turpentine enema gave much relief, and was followed during the night by two motions. On the following night, however, he was worse, complaining much of palpitation in addition to the abdominal pain. Constant vomiting was added to the symptoms on the Tuesday, with great tympanites and extreme tenderness in the right iliac region. On the Wednesday, enemata were returned immediately,

unmingled with fæculent matter; and in the evening of that day he became delirious and died. At the autopsy on the next day, fluid was found in the abdominal cavity, with recent lymph on the small intestines. Fæcal matter was discovered outside of the bowel in the right iliac region, it having escaped through a perforation, large enough to give passage to a crow-quill, in the vermiform appendix. This portion of the intestine was enormously dilated and intensely congested. The cæcum, on the other hand, was extremely diminished in size, being represented by a small cul-de-sac close to a constriction situated immediately below the ileo-cæcal valve. The internal surface of the vermiform appendix had its mucous membrane studded with minute ulcerations, and portions being covered by a false membrane. Nothing was found within it except fæces of a putty-like consistency; nor was there any apparent cause for the inflammation of which it had been the subject, unless the smallness of the cæcum might have caused a large quantity of fæces to be forced into it, and to set up irritation by their retention.

The third case was that of an infant who exhibited symptoms of strangulation, and died within a short time of birth. A strangulated hernia was discovered by Dr. James in the umbilical cord, but not in the portion that had been included in the ligature.

An interesting case of progressive muscular atrophy was exhibited by Dr. Glynn, in which the use of the thumbs was greatly assisted by a simple mechanical contrivance worn by the patient.

An animated discussion followed the reading of the history of a case of rheumatic fever with high temperature that had been treated by the cold bath by Dr. William Carter; and the recital of the post-mortem appearances in four fatal cases of rheumatic hyperpyrexia by Mr. Rushton Parker.

Dr. Carter's case, which was one admitted into the Royal Southern Hospital on May 19, 1874, for the first few days presented very little deviation from that of one of rheumatic fever of ordinary severity, except that the tongue was red instead of white, and that very large quantities of acid urine of a high specific gravity were being voided. Things went on fairly well till the 23rd, when the temperature quickly rose to 104° Fahr., the pains in the joints disappearing at the same time. There were no indications of cardiac mischief. The same temperature was maintained throughout the whole of the 23rd, and up to the evening of the 24th, when it quickly rose to 107° Fahr., the patient becoming quite unconscious, and being the subject of low muttering delirium. Some little time was occupied in preparing the bath, during which the temperature rose nearly to 108° Fahr. The patient was then placed in the water, its temperature being at first 98° Fahr., and it being gradually cooled down to 80° Fahr. The delirium quickly disappeared, and he conversed rationally. The temperature of the body fell, until after the lapse of an hour it reached that of health, when, as a feeling of chilliness was complained of, the patient was removed, placed in a bed between blankets, and a dose of warm brandy-and-water given to him. He quickly fell asleep, though he had not done so for two nights previously, and slept soundly for three hours. He then awoke delirious. At 11.45 the temperature was 108° Fahr.; and at one o'clock, when Dr. Carter reached the hospital, the patient was dying, with a temperature of over 110° Fahr., as the whole of the index was driven into the upper bulb, which in his thermometer was placed immediately over that number. An hour after death, the body having been merely covered by a thin sheet, the temperature in the axilla was still 108·4° Fahr.; while an hour later still, during the whole of which interval it had been lying in the cold dead-house, a temperature of 106° Fahr. was indicated. At the autopsy there was no apparent deviation from normal structure in any of the organs, all of which were carefully, although not microscopically, examined.

I learn from Mr. Edgar A. Browne that the operation for reducing partial staphyloma, to which I referred in my letter published in the number for November 27, was devised and first performed by himself, and that he published the report of a case some time ago.

The Clerkenwell Vestry have decided to increase the salary of their Medical Officer of Health (Dr. J. W. Griffith) from £150 per annum to £200, on account of the extra work thrown upon him by the Artisans' and Labourers' Dwellings Act.

GENERAL CORRESPONDENCE.

ON THE SKILLED ADMINISTRATION OF ANÆSTHETICS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The clinical lecture given by Dr. Sawyer, of Birmingham, and lately reported in one of your contemporaries, seems to suggest some remarks, not on the object of the same—viz., "the advantage of ether over chloroform,"—but on the way in which ether or chloroform is usually administered in most hospitals. He says, with much truth, "a medical practitioner never assumes a greater or more direct responsibility than when he undertakes to induce general surgical anæsthesia. Insensibility to the knife is not allied to sleep; it is more nearly akin to death. . . . Life hangs in a trembling balance. No hands can be too skilled to hold the scales. *Perhaps* unskilfulness has killed some of those who have died under chloroform."

The administration of ether or chloroform is, I fear, too little thought of as a branch of medical education; and though I never had a death under chloroform to record in over 500 cases, my experience is that operators are too fond, as a rule, of dating back a death which may occur after a non-successful operation to the administrator of the anæsthetic.

May this be accounted for by the fact that in many hospitals no special chloroformist is appointed, and the duty of inducing anæsthesia when an operation takes place devolves upon the house-surgeon on duty?—he being a young man who has *seen* ether or chloroform administered, and heard them spoken of in the medical theatre during his curriculum at his hospital, but who has never given his mind to the serious study of inducing anæsthesia, and, from the fact of his position as house-surgeon, is more anxious to look after the way in which the knife is doing its work than the way in which his inhaler, be it a towel or a cunningly devised machine, is acting, and making himself abstractedly intent on the really grave responsibility he has undertaken.

I once asked a surgeon connected with a large London hospital why they had not on their staff a specialist to induce anæsthesia, to instruct the students in the same by lectures and practical demonstration, and he himself always ready to administer chloroform or ether when operators required the same. His answer was, "Well, it would be taking so much out of the hands of the house-surgeon." House-surgeons, I know, at some hospitals, are employed by the surgeons to administer chloroform in private cases, for which they receive a fee. I conclude by asking you, Why should anæsthesia be such a neglected branch of medical education? and Why are not specialists in this branch appointed in every hospital or infirmary?

If they were, would so many deaths occur from (so-called) administration of chloroform? I am, &c., X. T. R.

The Paris Night Medical Service.—This, which we described (*Medical Times and Gazette*, October 30) when first projected, has now been definitely determined upon by the Préfet de Police, the Municipal Council having voted the requisite funds. Any practitioner may register himself at the police-station of the district in which he resides as willing to obey calls made for his services during the night for emergencies. The person seeking aid may choose anyone so registered, and a police officer will accompany the practitioner to his destination, wait for him, and pay him a fee of 10 fr. From October 1 to March 31 this night service will extend from 10 p.m. to 7 a.m., and from March 31 to September 30 from 11 p.m. to 6 a.m.

London Fever Hospital.—Some beautiful engravings of Landseer's works have lately been kindly given to this Hospital by Mr. Graves, of Pall-mall, and contribute greatly to the cheerful aspect of the wards. On the 20th ult. the Committee of the Hospital presented to Mrs. Puddington, who, first as nurse and then as matron, has been connected with the institution for twenty-five years, a handsome clock, with a suitable inscription, in recognition of the care, tenderness, and conscientiousness with which throughout that period she had performed all her duties. The presentation was made by Mr. Hugh Owen, the honorary secretary, who, as well as Dr. G. Buchanan and Dr. Broadbent, bore personal witness to Mrs. Puddington's faithful services.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 21.

Mr. GEORGE POLLOCK, F.R.C.S., President, in the Chair.

HÆMORRHAGIC PERIOSTITIS.

MR. THOMAS SMITH exhibited specimens, which he believed to be unique, of a condition to be best described as hæmorrhagic periostitis. A child of twenty-three months was admitted into the Sick Children's Hospital last February. It had been nursed three months, and once could stand alone and walk; it had suffered from diarrhœa; there was no history of syphilis in the family. Eleven months before admission, swelling appeared in the feet and spread up to the thighs. The legs hung from the body as if dead; they were not red, but obviously tender. These symptoms disappeared. The child had some diarrhœa, and again, two months before admission, the legs became affected as before. When first seen, the child was somewhat ricketty, lay on its back, with œdema of the legs and thighs, and slight cough. When the lower limbs were lifted, crepitation was felt at the hips and knees. There was no pain. The temperature was 101·4°; the urine could not be obtained for examination. Altogether the case appeared like one of syphilitic perichondritis; there was evidently separation of the epiphyses of several of the long bones. The child died on the seventh day, the symptoms not being materially altered. The temperature ranged from 99° to 101·5°. Post-mortem, both lower limbs presented extravasations of blood among the muscles. The epiphyses of the femur were quite separated from the shaft, and the periosteum from the bone; the periosteum was much thickened, and presented a layer of fresh-coloured blood a quarter to half an inch in thickness; on the removal of this the surface of the bone was found to be smooth. There was no evidence of suppuration. The ligaments and cartilages were perfectly healthy. These appearances were symmetrically present in the two thighs. The condition of the tibiæ was much the same, and so was that of the lower end of the left fibula. The upper limbs were not fully examined, but crepitation was felt at the shoulders. The abdominal viscera and the heart were healthy; in the middle of the lower lobe of the left lung was a patch of congestion, and a branch of the pulmonary artery near it contained a bright plug. There was no thrombosis of the iliac veins.

Mr. WAGSTAFFE inquired whether there might not have been a tendency to hæmorrhage from hæmorrhagic diathesis.

Mr. SMITH replied that there was no such history in the family. He believed the primary condition was the periostitis; the change was a strictly pathological one.

Dr. GOODHART mentioned the case of a boy in Guy's Hospital, in whom an enormous swelling of the calf yielded, on incision, a large amount of blood only. The whole periosteum was found to be separated, and there was no obvious vascular source of the hæmorrhage. The epiphyses were not separated.

The PRESIDENT believed that the condition was the result of acute periostitis, and that the hæmorrhage was an accidental circumstance dependent on diathesis. He mentioned the case of a boy of twelve, in whom hæmorrhage occurred into the cavity of an abscess connected with diseased hip. A large clot and bleeding from the surface were found on incision. The lad had had disease of the opposite hip, and the diathesis obviously determined the hæmorrhage.

Mr. MAUNDER had twice cut down upon supposed pus under the periosteum, and found only stuff like red-currant jelly.

FATTY TUMOUR OF THE SPINAL CORD.

Dr. GOWERS exhibited this specimen from a man who died with empyema and locomotor ataxy. The posterior columns of the cord were sclerosed. The tumour, which was small, embracing one-half of the circumference of the cord, presented all the characters of adipose tissue, and among this a few striated muscular fibres. Some of the cords of the cauda equina were involved in the growth. There was apparently no relation beyond that of simple coincidence between the tumour and the sclerosis. The case was interesting as being the first on record of fatty tumour in this situation, and from the presence of muscular fibres.

EPITHELIOMATA OF THE CHIN AND THE TONGUE.

Mr. CHRISTOPHER HEATH brought forward a patient from whom he had removed a large epithelioma. The disease involved the chin chiefly; the surface was ulcerated, and the skin adherent. The patient, a man of fifty-five, had had an epitheliomatous growth removed from the lip four years previously: the present tumour had grown rapidly. The chin and much of the surrounding parts were removed; but the cavity of the mouth was not opened in the operation.

Mr. HEATH also brought forward the patient from whom he removed the tongue and neighbouring structures for the extensive epitheliomatous growth exhibited on November 2 (*Medical Times and Gazette*, November 13, page 560.)

BRONCHOCELE WITH DYSPNŒA.

Mr. LENNOX BROWNE brought forward a case in which a very moderate enlargement of the thyroid body caused great dyspnœa. The right lobe was affected, the trachea being pushed to the left. There were other striking symptoms in this patient:—The right side of the face and neck and the right axilla did not perspire, while the left did; the right pupil was contracted and slow; there was right ptosis; the temperature in the left axilla was 1° above the normal, in the right normal; the two optic discs were symmetrically anæmic vision was perfect; the right radial pulse gave evidence of comparatively higher tension. The subject, a woman, had suffered from orthopnœa for twelve months, without suffocative attacks; the face and neck had been unsymmetrical for eight months.

RECURRENT EPITHELIOMA.

Mr. GODLEE exhibited a specimen of epithelioma recurrent in the chest and toe after the successful removal of an epithelioma of the tongue, and without glandular affection in the neck. The primary tumour was removed by Mr. Erichsen in University College Hospital, in May, 1873, from a man fifty-six years of age, then strong and healthy, by means of the galvanic écraseur and the scissors, but at the end of the operation very extensive hæmorrhage occurred from the ranine artery, necessitating laryngotomy to prevent total asphyxia. This was specially drawn attention to as probably exercising an important influence on the sequel. The patient made a rapid recovery, and continued quite well for six months, when some indefinite symptoms appeared, but no return of the disease in the tongue or neck showed itself. Fourteen months after his discharge he noticed a small tumour on the middle toe of his right foot, originating as a strawberry mark in the skin. This grew rapidly, and in four months reached the size of a small hen's-egg. Six weeks after this was noticed, bronchitis set in, and was followed by the rapid onset of extreme cachexia. On readmission to the hospital, besides the tumour on the toe, there was a large mass projecting from the front of the right chest, and a swollen gland in the right groin; both the tumour in the chest and that on the toe expanded synchronously with the heart's beat. The patient rapidly sank, and died exhausted. Post-mortem a large mass was found in the right lung, forming part of the tumour which projected externally, and another large mass occupied the anterior and posterior mediastina, separated, however, from the former by a considerable thickness of compressed lung, indicating that the mass in the chest was not a direct continuation of that in the mediastina. There were two or three small nodules in the other lung, and a large number in the thickened and completely adherent pericardium; but this completed the list of recurrences. Mr. Godlee said that the interest of the case appeared to hinge on the problem as to the method of infection, if such had been the case at all. If the tumour were epithelioma the growth in the tongue must have been primary. Recurrence must then have taken place either before or after the operation for its removal. To maintain the latter position implied a belief in the constitutional tendency, not only to the development of cancer, but of the least malignant form—viz., epithelioma; and to support the former only two explanations seemed possible—1st, that recurrence occurred without the involvement of the lymphatic glands next to the original tumour (a process opposed to all accepted doctrines as to the propagation of epithelioma); and, 2nd, that pieces of the tumour were drawn into the lungs either at or before the operation. In support of this view the improbability of the other explanations was adduced, and the excellent opportunity afforded by the accident which occurred during the operation. The reasons suggested why such a recurrence does not occur more frequently were—1st, the

rarity of the accident during the removal of the tongue; 2nd, the morsels separated from a tumour in the ordinary course of events have lost their vitality; and, 3rd, if living particles were separated they would almost certainly pass into the œsophagus instead of the trachea, and thus be digested. The analogue of this mode of development was to be found in disseminated cancer of the peritoneum following rupture of a large mass into that cavity.

Sarcoma of the Clavicle.

Mr. Walsham showed a specimen of round-celled sarcoma of the clavicle, removed by operation from a girl of fourteen, in whom it appeared as a painful growth occupying the outer part of the bone of the right side. Some glands were removed at the same time. The tumour was a round-celled growth, connected with the periosteum. (Referred to the Committee on Morbid Growths.)

Aneurism of the Aorta.

Dr. Frederick Taylor exhibited a specimen of aneurism of the thoracic aorta which had proved fatal by dissecting along the œsophagus into the stomach. A man of fifty-three had suffered for five months from dyspnœa, cough, and some dysphagia, and on his admission into Guy's Hospital the last was the chief difficulty. Little food could be swallowed, and it was mostly returned. The physical signs were obscure; there was no audible murmur. On the third day the patient complained of pain across the stomach. On the ninth day some pulsation was observed at the right border of the sternum, near the second cartilage. On the tenth day the patient died suddenly in bed. Post-mortem, a large aneurism was found on the third part of the arch of the aorta, just beyond the left subclavian origin. The stomach was distended with a large blood-clot weighing two pounds, and contained also some disintegrating fibrin. Near the cardiac end of the stomach a small ulcerated opening was found, which led into a channel filled with blood along the œsophagus. The walls of this channel were formed by the fibres of the circular muscular coat of the œsophagus, which had been split by the blood; its upper extremity was rather dilated, and quite at the end presented an opening leading into the aneurism. At two places there were slight openings into the subpleural tissue from the œsophageal channel, and some hæmorrhage corresponding. The other viscera were healthy. The intestines contained blood. Dr. Taylor said that the interest of the case lay in the rare mode of termination. The physical signs were obscure. The obstruction of the œsophagus had doubtless been due to the distension of the upper end of the blood-channel.

Dr. Crisp inquired whether the patient had suffered from syphilis.

Dr. Taylor replied in the negative; neither was there any trace of syphilis in the viscera.

Arrest of Development of Both Forearms.

Mr. Doran showed the bones of the forearms from an anatomical subject, a female of fifty-four. The limbs were short, the muscles pale, the vessels and nerves normal; the hands of the usual size; the elbows were chronically diseased; there was no trace of rickets. Both radii proved to be about half the average length, and were greatly distorted at the extremities. The ulnæ were also affected. Certain changes on the surface were probably senile. The movements of the bones were free. The limbs were reported to have been "always so."

Mr. Wagstaffe asked whether there was any account of maternal impression; and

Mr. Doran replied in the negative.

Recurrent Sarcoma.

Mr. Spencer Watson reported the sequel of Dr. Walker's case of recurrent sarcoma of the leg (recorded in vols. xxii. and xxiv. of the *Transactions*). Five successive operations had been performed for sarcoma of the leg in a woman, including ligature of the femoral artery, and finally amputation in 1873. Nine months after the last operation a gland as large as a walnut, and tender, was found in the groin, and the health was failing. Two months later the patient fell and hurt the lump; it was then as large as an orange, with distended veins; and very shortly afterwards the whole mass sloughed away with hæmorrhage. Ten days later, hæmorrhage returned, and proved fatal. The disease was a spindle-celled sarcoma, and its course was of five years' duration.

Embolic Infarct of the Heart.

Dr. Goodhart showed the heart of a girl of fifteen who died with mitral stenosis and great dyspnœa. There was no history of rheumatism. The posterior wall of the left ventricle presented an extravasation of blood, infiltrating the muscles; its embolic nature was doubtful; no embolism was found in the vessels; there were other ecchymoses around. The condition seemed to bear upon the origin of fibroid disease of the heart. The microscopical appearances were those chiefly of blood, the fibrous tissue, which was in considerable amount, being probably due to wasting of the muscular elements. The myocardium was healthy elsewhere. Dr. Goodhart inquired whether this condition might not be a cause of sudden death. In a case of sudden death in a girl, during or soon after washing-out of the chest in empyema, he had found post-mortem a large extravasation of blood in the wall of the heart, probably embolic.

Dr. Gowers inquired when Dr. Goodhart believed the infarction to have occurred in the present case.

Dr. Goodhart replied, probably four days before death.

Mr. Butlin had more than once seen sudden syncope in washing-out the chest, and had given up anæsthetics in the operation on this account.

Mr. Heath suggested that some of these cases of sudden death during washing-out of the chest were due to the use of carbolic acid lotion.

Mr. Morris remarked that the occurrence was probably not due either to anæsthetics or to the medicament used. Sudden death occurred sometimes in the operation of tapping.

Mr. Doran, Mr. Godlee, and Dr. Powell also spoke upon the same question.

Dr. Goodhart replied that in his case a weak carbolic acid solution had been used. Anæsthetics were probably not administered.

New Member.

In the course of the evening Dr. Pitman was elected a member of the Society.

NEW INVENTIONS AND IMPROVEMENTS.

BRAND'S "TURTLE JELLY."

We have received from Messrs. Brand and Co., of Little Stanhope-street, Mayfair, a sample of turtle jelly, which they have brought forward as an additional nutritive delicacy, or delicate nourishment, for invalids and convalescents. Messrs. Brand and Co. have already a high and well-established reputation for "Specialities for Invalids," especially for their "Concentrated Beef-Tea," and "Essence of Beef," and this new production will, we think, be found to be creditable to the reputation of the firm. They assure us that "it is made from the pure calipash and calipee of the turtle, flavoured with a little wine, etc."; and it is certainly pleasing to the eye, and pleasant and palatable to the taste, while it is a handy, convenient, and ready preparation. It will, we expect, prove a very useful and acceptable addition to our invalid-diet list.

The Faculty of Medicine of Paris.—The *Gazette Hebdom.*, December 17, giving an account of the various improvements which have been accomplished during the ten years which Prof. Wurtz has been Dean of the Faculty—notwithstanding the eight students' revolts that have taken place—observes that "To this simple enumeration we may add some facts which tend to show the actual prosperity of our Faculty. The number of students has more than doubled during the ten years, the receipts also rising from 400,000 fr. to more than 800,000 fr. The budget of the expenditure has also been augmented by some 130,000 fr., to the gain of the members of the Faculty and of the material services. The standard of education, if we may measure it by the increased difficulty of the examinations, has certainly been raised. And although the students of only medium merit, obtaining the signature *passablement satisfait*, are very numerous, yet there issue from the Faculty a great number of highly instructed candidates. This is attested by the increasing proportion of remarkable theses that are presented. Among 445 of these, nineteen have obtained the notification of *extrêmement satisfait* or *très satisfait*."

OBITUARY.

W. SANDS COX, F.R.S., F.R.C.S. (Hon.).

This gentleman, once so well known in Birmingham, died on the 23rd ult., at Kenilworth, in his seventy-fifth year. We are indebted to our contemporary the *Birmingham Daily Post* for the following sketch of his life:—

Mr. Cox was born in Birmingham, in 1802: he was the son of Mr. Edward Townsend Cox, a well-known surgeon, and was educated for the same profession, first at the General Hospital, Birmingham, and afterwards at Guy's and St. Thomas's, and in Paris. In 1824 he was admitted a member of the Royal College of Surgeons, and in the following year he settled in Birmingham as a consulting surgeon; holding, at the same time, the appointment of Surgeon to the General Dispensary. As a professional man, Mr. Cox enjoyed a high reputation, especially as an operator; and many papers written by him upon various departments of surgery attracted considerable attention, and obtained for him the recognition of several learned societies. It is not, however, as a surgeon that Mr. Cox will be best remembered in Birmingham, but rather as a promoter of medical education. In 1828, in conjunction with Dr. Johnstone, Mr. Booth, and other leading physicians and surgeons, Mr. Cox founded the Birmingham School of Medicine, which was afterwards expanded into the Queen's College. For the last-named institution a charter of incorporation was obtained in 1843; another charter, sanctioning the addition of an arts department, was granted in 1847; and a third charter, establishing a theological department, was obtained in 1851. In order to complete the means of medical instruction as an integral part of the College scheme, Mr. Cox promoted the foundation of the Queen's Hospital, which, in close conjunction with the College as regards government and staff, was founded in 1841, chiefly, if not wholly, by Mr. Cox's exertions. These united institutions exhibited, and for a time seemed likely to realise, their founder's ideal of medical and theological education. He proposed, indeed, to establish in Birmingham a kind of Midland university, with faculties of theology, law, arts, medicine, natural science, and engineering, and with the power of granting degrees in the last named, and of preparing students for degree examinations in the other faculties. The Hospital was designed for the special education of the College medical students, and thus the scheme was completed. It was a comprehensive plan, a noble one, boldly conceived, and well in advance of public opinion, as such schemes should be, and money to aid in carrying it out was not wanting. A benefactor was found in the Rev. Dr. Warneford, who from first to last gave nearly £25,000 for the College purposes. But too much money was laid out in buildings, and the rents of rooms assigned to students, and other parts of the endowment, were charged with heavy interest for salaries, prizes, etc., which fettered the liberty of the College Council, and ultimately imposed a crushing burden upon its finances. Faults of management also disclosed themselves. Though sincerely desirous of seeing his work prosper, and though most earnestly devoted both to College and Hospital, Mr. Cox was autocratic in his mode of conducting both institutions, and his administrative faculty not being equal to his creative power, and to the readiness with which he gave and obtained money, the College and Hospital both became involved in a succession of serious quarrels between the founder and his associates in the management. The actual power resided mainly in the hands of Mr. Cox, either as Principal or Dean of the Faculty—both of which offices he filled from time to time—and the exercise of this authority led to numerous and rapid changes in the staff, and the College gradually lost the confidence of those whom it was designed to attract and to benefit. Finally, at the request of professors, members of council, and others interested, an inquiry into the institution was held in 1860 by the Charity Commissioners; and this led to the severance of the Queen's Hospital from the College, and to the remodelling of the College itself upon a more limited scale. It now consists of a medical school and a theological school, both united in the building in Paradise-street, and administered by a reformed council. These changes led to Mr. Cox's withdrawal from the College, and from the Queen's Hospital. The governors of the latter institution elected him a consulting surgeon on the expiration of his twenty years' service as active surgeon, and also elected him an honorary life governor; but he was never reconciled to or forgave the changes made. One thing, however, should be said for Mr. Cox. He was unquestionably disinterested; his life, which might have been devoted to making a fortune, was given up unceasingly to the College and Hospital, without a thought of advantage to himself; and thus he deserves to be held in grateful remembrance.

For several years past he has had little connexion with Birmingham. Soon after the death of his father, in 1863, he quitted his residence in Temple-row, and went to live at Bole Hall, near Tamworth. Thence, some years later, he removed, we believe, to Leamington, and finally to Kenilworth, where he died suddenly on Thursday last.

MEDICAL NEWS.

University of Oxford.—The following are the names of the candidates who have passed the First Examination for the degree of Bachelor in Medicine in Michaelmas Term, 1875:—

Burn, Stacey Southernden, B.A., Corpus Christi College.
Cottle, Ernest Wyndham, B.A., St. Alban Hall.
Kidd, Percy, B.A., Balliol College.
Moullin, James Alfred, M.A., Pembroke College.
Wood, John, B.A., Pembroke College.
Wright, George Arthur, B.A., unattached.

The following are the names of the candidates who have passed the Second Examination for the degree of Bachelor in Medicine in Michaelmas Term, 1875:—

Champneys, Francis Henry, B.A., Brasenose College.
Hartley, John Fleming, M.A., Brasenose College.
Jacob, Ernest Henry, B.A., Corpus Christi College.
Ormerod, Joseph Arderne, B.A., Jesus College.
Sharkey, Seymour John, B.A., Jesus College.
West, Samuel Hatch, B.A., Christ Church.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 23, 1875:—

Dell, Joseph Francis, Dunstable, Beds.
Hayes, Thomas Edward Darley, Burton-crescent, W.C.
Horsman, Godfrey Charles, King-street, Portman-square.
Jones, David Rhys, 85, Camden-street, S.W.
Mason, John Wallis Barron, Osnaburgh-terrace, Regent's-park.
Osborne, John Henry, Southwell, Notts.
Popert, Adolph Joseph, Workworth-terrace, Limehouse.
Smith, Stephen Francis, Stretten-villas, Hackney.
Steil, George Robert, Park-villas, Shepherd's-bush.
Weller, John, Amersham, Bucks.

The following gentlemen also on the same day passed their primary professional examination:—

Clarke, Reginald, King's College.
Clarke, Richard, Westminster Hospital.
Holloway, George, Queen's College, Birmingham.
Kay, William, St. Bartholomew's Hospital.
Morton, Augustus Charles, Guy's Hospital.
Quicke, William Jenkins, Westminster Hospital.
Reader, Jeremiah, Guy's Hospital.
Thomas, David Edward, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Inglis, Alexander Monro, M.D.—Consulting Physician to the Worcester Infirmary.

Jackson, Ernest Carr, M.R.C.S., L.R.C.P. Lond., L.S.A.—House-Surgeon to St. Mark's Hospital.

Walter, Wm., B.A., M.B. Univ. Dub., L.K.Q.C.P., L.R.C.S.I.—House-Surgeon to the North Staffordshire Infirmary, Stoke-on-Trent, *vice* Mr. Faulkner, resigned.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—The undermentioned Fleet Surgeons have been retired in accordance with the provisions of her Majesty's Order in Council of February 4, 1875:—James Gibson Thomas Forbes, Esq., from the 8th Nov., the date on which he was retired under her Majesty's Order in Council of February 22, 1870; Frederick William Blake, Esq., M.D., Peter Williams Rolston, Esq., from the 30th Nov.——In accordance with the provisions of her Majesty's Orders in Council of February 22, 1870, and of February 4, 1875:—Fleet Surgeon William Fasken, M.D., has been placed on the Retired List, and allowed to assume the rank of Deputy Inspector-General of Hospitals and Fleets.

BIRTHS.

Andrews.—On December 27, at Everleigh, Hampstead, the wife of James Andrews, M.D., of a daughter.

Dawson.—On December 24, at 5, Second-avenue, Queen's-gardens, Brighton, the wife of Richard Dawson, M.B., prematurely, of a son, stillborn.

JALLAND.—On December 28, at 34, Bootham, York, the wife of W. Hamerton Jalland, F.R.C.S., of a daughter.

KING.—On December 24, at 48, Harley-street, the wife of Robert King, M.B., of a daughter.

MIDDLEMIST.—On December 25, at 10, Bedford-place, Russell-square, W.C., the wife of Robert Percy Middlemist, M.R.C.S., of a daughter.

DEATHS.

BLAKENEY, ROBERT WEARE, eldest son of Edward Hugh Blakeney, M.D., F.R.C.S., Deputy Inspector-General, Army Medical Department, at Alresford House, Bedford-hill-road, Balham, Surrey, on December 27, aged 23 years and 11 months.

COX, WILLIAM SANDS, F.R.C.S. Eng., J.P., D.L., F.R.S., late of Birmingham, suddenly, at Woodside, Kenilworth, on December 23, in his 75th year.

DOWNING, CATHERINE MARY, the beloved wife of Edward Downing, M.D., at Wellington House, New Cross, on December 26, in her 50th year.

HINTON, James, M.R.C.S., late of Savile-row, at St. Michael's, Azores, on December 16, aged 54.

SQUIRE, BERTHA ST. BARBE, beloved wife of Robert Hemington Squire, Esq., and daughter of Dr. Wood, late of Barnwood, Gloucester.

PICKERING, CHARLES W., Deputy Inspector-General of Hospitals, late of H.M.'s Madras Medical Service, at Shepperton, Middlesex, on December 24, aged 60.

WETHERELL, THOMAS, M.R.C.S. Eng., L.S.A., F.G.S., at his residence, Highgate, on December 22, in his 76th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be legally qualified, and unmarried. Applications, with testimonials, to Dr. Gilland, Medical Superintendent.

BOLTON UNION.—Resident Assistant Medical Officer for the Workhouse. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. S. Cooper, Clerk of the Union, on or before January 10.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer. Candidates must possess a double qualification. Applications, with testimonials, to Mr. W. Appleton, Clerk to the Managers, Cleveland-street Asylum, Fitzroy-square, W., before January 10.

CHORLTON-UPON-MEDLOCK, RUSHOLME, AND MOSS-SIDE DISPENSARY, MANCHESTER.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Mr. Fox, 59, Princess-street, Manchester.

DENBIGHSHIRE INFIRMARY, DENBIGH.—House-Surgeon. Candidates must be duly qualified, unmarried, and conversant with the Welsh language. Applications, with testimonials, to the Chairman of the Committee of Management, under cover to the Secretary.

DERBYSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates need not possess a qualification. Applications to the Secretary, on or before January 15.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Committee, under cover to the Secretary, on or before January 27.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to H. H. Hornby, Esq., 8, Knowsley-buildings, Tithebarn-street, Liverpool.

MALE LOCK HOSPITAL.—House Surgeon. For information apply to the Secretary.

PARISH OF BIRMINGHAM.—Resident Assistant Workhouse Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Guardians of the Poor of Birmingham, at the Parish Offices, Paradise-street, Birmingham, on or before January 16.

SHEFFIELD GENERAL INFIRMARY.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 5.

ST. SAVIOUR'S UNION, SURREY.—District Medical Officer and Public Vaccinator. Candidates must be duly qualified. Applications, with testimonials, to Mr. H. C. Jones, Clerk's Offices, John-street West, Blackfriars-road, S.E., before January 3.

ST. MARY'S HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, QUAY-STREET, MANCHESTER.—Qualified Medical Man. Applications, with testimonials, to Mr. J. Barker, 41, John Dalton-street, Manchester, on or before January 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Chorlton Union.—The office of Medical Officer for the Workhouse is vacant; salary £250, to be increased to £300 per annum after six months' service; furnished apartments and allowances.

Colchester Union.—Mr. E. Worts has resigned the First Ward District; area 4271; population 13,075; salary £100 per annum.

Royston Union.—Mr. Thos. Markby has resigned the Fifth District; area 14,219; population 2931; paid a sum per ease.

APPOINTMENTS.

Blean Union.—Frank Wacher, M.R.C.S. Eng., L.S.A., to the Sturry District.

Bosmere and Claydon Union.—Joseph C. Norman, M.R.C.S. Eng., L.S.A., to the Needham West District.

Carmarthen Union.—Wm. Lloyd, B.M. Dub., M.R.C.S. Eng., L.S.A., to the Workhouse and the Carmarthen District.

THE WORCESTER INFIRMARY.—In consideration of his long and faithful services as Honorary Physician to the Worcester Infirmary, the Executive Committee of that Institution have unanimously elected Dr. Inglis to the post of Honorary Consulting Physician. Dr. Inglis's successor as Honorary Physician is Dr. James Wilson, of Worthing.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—The third meeting of this Society was held on Tuesday, December 7, at the Norfolk and Norwich Hospital. The following papers were read and discussed:—"The Local Use of Cold in Abdominal Inflammation," by Dr. Eade; "The Therapeutic Value of Quinine in Enteric Fever," by Dr. Waddell; "Obstruction of the Bowels," by Dr. Bateman; "Notes of a Case of Catalepsy," by Mr. Turner. The discussion on the last-named case will be resumed at the next meeting, which will be held at the Medical Library on January 4, at 7 p.m.

WHAT IS THE USE OF A DIPLOMA?—A despairing M.D., residing at Lyons, seeing the utter impunity with which quacks of all kinds are allowed to practise in that city, demands what is the use of his diploma. The quack has no diploma, and has not to pay the annual *patente*, or tax, which is incumbent upon the holder of this document. The M.D. asks whether it will not be a good plan for him to make a declaration at the Préfecture de Police that he renounces seeing patients by virtue of his diploma, and thus escape a very onerous tax. If after this he does see patients, he will only, like the charlatans, be liable to a fine of fifteen francs in the unlikely case of being proceeded against—a sum far far less than the *patente*. M. Diday, replying to the query, puts a damper upon his *confrère's* ingenuity by informing him that, in case he saw patients after making this declaration, whatever might be the indifference the public prosecutor would show, the argus-eyed revenue officer would soon be down upon him for his *patente;* and that he would also render himself liable to pursuit in law for a curious offence for a M.D. to commit, which may be designated as "*usurpation du titre de charlatan.*"—*Lyon. Med.*, Dec. 26. [The Belgian practitioners are much aggrieved also by this annual tax, or *patente*, and have recently petitioned the Legislature for its removal, on the ground that advocates are not subject to it. The Minister replied that he could not consent to give the tax up, but that he would bring in a Bill for extending it to advocates, and thus remove any feeling of jealousy that may exist.]

NOTES, QUERIES, AND REPLIES.

Ye that questionetly much shall learn much.—*Bacon.*

Dr. J. Hamilton, Sydney, N.S.W.—Letter with enclosure received.

Dr. Montizambert, Quebec.—Letter received.

Dr. Van Steenkiste.—Letter with enclosure received.

A Metropolitan Lecturer.—The subject is attracting considerable attention, and at a meeting of the Council of the College of Surgeons on Thursday next Mr. Critchett will submit a motion for discussion. The Metropolitan Branch of the Medical Association, through its president, has drawn the attention of the Council to the omission of midwifery from the examinations for the diploma of membership of the College.

J. J., Plymouth.—The following is the subject for the Jacksonian Prize of 1876, viz.:—"The Treatment of Cancer of the Rectum, particularly as regards the possibility of curing or relieving the patient by excision of the affected part."

Mons. R. de M.—The next French Hospital Banquet will take place at Willis's Rooms on February 19, when His Excellency the French Ambassador will preside.

Mr. Manning.—Dissertations for the Jacksonian Prize were required to be sent in on or before Friday, December 31. On going to press we are informed that no essays have yet been received.

Dr. Maddox, Ajaccio.—Received, with our thanks.

Obstetrician.—The question of the admission of ladies to examinations continues to excite the attention of the Council, among whom, of course, a great difference of opinion on the matter exists.

Ilex Aquifolium.—You will find a paper on the medicinal properties of the expressed juice of the mistletoe-berries in facial neuralgia in the *Medical Times*, vol. xii., p. 36.

Dr. Thompson.—The late Professor Quekett was born at Langport, Somerset; he died and was burried at Pangbourne, Berks. Before taking up his residence at the College of Surgeons he resided, but never practised, at 15, Dorchester-place, Blandford-square.

St. Austell.—It was Dr. Beddoes who was so uncomfortably stout that a lady of Clifton used to call him "the walking feather-bed."

Staphyloma.—Dr. J. R. Farre and Mr. J. C. Saunders established the first public institution in this kingdom for the treatment of ophthalmic diseases.

COMMUNICATIONS have been received from—

Our Hastings Correspondent; The Registrar of Apothecaries' Hall, London; Mr. C. Williams, Norwich; Mr. Candler, Melbourne; Mrs. Beale, Holloway; Mr. W. W. Reeves, London: The Registrar-General, Edinburgh; Mr. Foley, St. David's; Dr. Crighton, Rishton; Dr. Van Steenkiste, Bruges; Mr. Pain, Christchurch; Mr. Tremearne, Victoria; Mr. Allman, Galway; Dr. J. Reed, Pentridge; Dr. Drysdale, Port Chalmers; Mr. Lewtas, Netley; Mr. Walton, Hartshill; Dr. L. B. Newton, Vermont; Dr. Inglis, Cheltenham; Mr. C. F. Maunder, London; Mr. E. C. Jackson, London; Dr. C. Prœoler, Illinois; Dr. F. A. Burrall, New York; Mr. W. Barnett, Weston-super-Mare; Dr. F. E. Jencken, Dublin; Dr. J. Chapman, London; Dr. W. Dobbin, Banbridge; Mr. Hamilton Pervor, London; Mr. J. Godfrey, Northampton; Dr. Farrell, Dublin; Mrs. Parkinson, Westboro'; Dr. Handfield Jones, London; Mr. E. Nicholson, Sheffield; Dr. C. Ashenden, Hastings; Our Dublin Correspondent; Major-General Creagh, London; F. W. L.; Mr. J. Chatto, London; Dr. George Johnson, London; Dr. J. Hughlings-Jackson, London.

BOOKS AND PAMPHLETTS RECEIVED—

Ziemssen's Cyclopædia of the Practice of Medicine, vol. v.—Flint on Pneumothorax—Byford's Address in Obstetrics and Diseases of Women and Children—Transactions of the Medical Society of the State of Pennsylvania, vol. x., part 2—Wilson's Descriptive Catalogue of the Dermatological Specimens contained in the Museum of the Royal College of Surgeons, second edition—Report on the Hospital for the Insane, Gladesville, New South Wales—Annual Report of the Sanitary Commissioner with the Government of India for 1874—Wood on the Diagnosis of Diseases accompanied with real or apparent Paraplegia without marked Muscular Degeneration.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Hastings and St. Leonard's News—Worcestershire Chronicle—Hastings and St. Leonard's Chronicle—Melbourne Argus—Medical Temperance Journal—Virginia Medical Monthly—Canada Medical and Surgical Journal—Co-operative and Financial Review—Temperance Record—Hastings and St. Leonard's Observer.

APPOINTMENTS FOR THE WEEK.

January 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

3. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures—Dr. C. Theodore Williams, "On the Influence of Climate in the Treatment of Pulmonary Consumption."

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Annual Election of Officers and Council. Mr. Nunn—1. Injury to Radius; 2. Deformity from Rheumatic Gout. Dr. Wickham Legg—1. Aneurism of Heart; 2. Aneurism of Mitral Valve; 3. Displaced Kidney. Mr. Fletcher Beach—Trachea and Fatty Tumours from a Case of Sporadic Cretinism. Mr. D. Balding—Sarcoma of Sciatic Nerve. Dr. Coupland—Cancer of both Breasts and Ovaries. Mr. C. Heath—Artificial Teeth removed from Trachea. Dr. John Williams—The Amyloid Reaction in the Dysmenorrhœal Membrane. Mr. Godlee—Anomalous Blood-Cyst. Mr. Walsham—Fibroma of Ovary.

5. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Annual Meeting; Election of Officers and Council, Reports, and other business; Specimens; President's Address. Dr. Routh, "On a Case of Extra-Uterine Fibroid successfully treated by Gastrotomy." Dr. John Williams, "On the Mechanical Action of Pessaries." And other Communications.

Royal Microscopical Society, 8 p.m. Meeting.

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

7. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 25, 1875.

BIRTHS.

Births of Boys, 1042; Girls, 1008; Total, 2050.
Average of 10 corresponding years 1865-74, 2134·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	797	806	1603
Average of the ten years 1865-74	805·3	805·9	1611·2
Average corrected to increased population ...	...	...	1724
Deaths of people aged 80 and upwards ...	...	...	58

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	13	9	3	12	2	1	...	1
North... ...	751729	...	14	31	2	17	...	...	1	3
Central ...	334369	...	3	5	1	8	1	2	...	...
East	639111	...	10	12	1	21	1	3	...	...
South... ...	967692	...	16	28	2	13	...	5	4	8
Total	3254260	...	56	85	9	71	4	11	5	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·780 in.
Mean temperature	46·1°
Highest point of thermometer	54·5°
Lowest point of thermometer	39·2°
Mean dew-point temperature	41·8°
General direction of wind	SW. & W.S.W.
Whole amount of rain in the week...	0·35 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 25, 1875, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1875.*	Persons to an Acre. (1875.)	Births Registered during the week ending Dec. 25.	Deaths Registered during the week ending Dec. 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3445160	45·7	2050	1603	54·5	39·2	46·1	7·84	0·35	0·89
Portsmouth ...	122632	27·3	49	40	...	...	...	...	...	...
Norwich	82842	11·1	46	36	55·5	37·0	44·9	7·17	0·21	0·53
Bristol	196186	44·1	126	130	55·4	39·7	46·4	8·00	0·72	1·83
Wolverhampton ...	71718	21·1	42	30	53·7	36·8	44·6	7·01	0·55	1·40
Birmingham ...	366325	43·6	251	188	65 2	36·5	45·6	7·56	0·51	1·30
Leicester	109830	34·3	85	45	...	...	...	...	...	...
Nottingham ...	92251	46·2	50	40	...	...	...	...	...	...
Liverpool	516063	99·1	304	278	55·2	38·5	46·3	7·95	0·35	0·89
Manchester ...	356626	83·1	244	238	...	...	...	...	...	...
Salford	135720	26·3	94	98	55·2	35·0	45·0	7·22	0 71	1·80
Oldham	87437	18·7	67	52	...	...	...	...	...	...
Bradford	168305	23·3	90	77	54·6	38·8	45·9	7·72	0·90	2·29
Leeds	285118	13·2	182	157	56·0	39·0	46·1	7·84	0·51	1·30
Sheffield	267881	13·6	152	130	55·5	38·0	46·2	7·89	0·56	1·42
Hull	133932	36·8	84	52	54·0	35·0	44·4	6·89	0·28	0·71
Sunderland ...	106342	32·2	71	42	53·0	36·0	44·9	7·17	0·34	0·86
Newcastle-on-Tyne	137665	25·6	98	73	...	...	...	...	...	...
Edinburgh	211626	50·5	123	104	...	...	...	...	...	...
Glasgow	534564	88·6	383	273	53·8	33 8	42·5	5·84	2·82	7·16
Dublin	314666	31·3	135	161	53 0	36·0	45·1	7·28	0·98	2·49
Total of 21 Towns in United Kingdm	7742889	37·0	4726	3847	56 0	33·8	45·3	7·39	0·70	1·78

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·78 in. The lowest was 29·41 in. on Monday evening, and the highest 30·27 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1875 by the addition of four years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture I.—Personal Identity.

(*Continued from page 2.*)

There are further cases which present obstacles to the identification of living persons, which are partly to be considered as legal curiosities, and partly involve points bearing more or less directly and exclusively on forensic medicine. Thus our legal records contain instances of *mistaken identity*, from the resemblance which one individual is found to bear to another, and that whether in the case of relatives or otherwise.

1. Daniel and Robert Perreau, twin brothers, in 1775 were tried and executed for a forgery on Mr. Adair. So great was the resemblance between them that Mr. Watson, a money scrivener, who had drawn eight bonds by order of one or other of the brothers, hesitated to fix upon either; but being pressed to make a positive declaration, he at length fixed upon Daniel.(a)

2. A very remarkable instance of personal identity, says Dr. Montgomery of Dublin, was for some years under his own observation in the sons of a poor peasant. They were twins, and so much alike that one of them, who was very wild, used frequently to bribe his brother to change clothes with him, and go home to take a beating in his place, the father having no means of distinguishing them except by their dress.(b) But it is not alone between near relatives, as in the above instances, that this close personal resemblance always exists. In the following instances the parties were no way connected.

3. At the Old Bailey, in 1822, Joseph Redman was indicted for assaulting and robbing John Brown. The prosecutor, in his cross-examination, stated that he knew a man named Greenwood, who, with his hat on, so much resembled the prisoner that he should hardly know one from the other. Greenwood was in custody, and was brought to the bar, when the extreme similarity between the two men struck everyone present with astonishment. Redman proved an *alibi*, and the jury returned a verdict of not proven.(c)

4. A few years ago, says Dr. Montgomery, a gentleman, coming into Dublin late in the evening, was stopped and robbed by a foot-pad. A man was arrested by the police under suspicious circumstances, and being recognised by the gentleman, was committed to abide his trial, when he was identified by the prosecutor in the most positive manner, in consequence of which he was found guilty; but, owing to previous good character, recommended to mercy. A few days afterwards the gentleman was surprised and horror-struck at meeting on the road the man who had really robbed him.(d)

These and similar occurrences are well calculated to teach the absolute necessity of studying accurately the grounds of such decisions on the part of witnesses, and the extreme caution by which they should be guided in their depositions. On the other hand, it is not a little surprising how readily witnesses will be able to identify persons whom they have seen only it may be once, and that in situations extremely unfavourable for noting the personal peculiarities by which they can alone be guided. The flash of a pistol or the flame of lambent lightning in a dark night has more than once sufficed for this purpose. Two highwaymen were sufficiently identified to be afterwards apprehended and brought to trial, in England, in 1799, by the light afforded by the flash of their pistols, which they had fired into a coach. A seaman on board ship, in robbing a female passenger in the cabin of an Indiaman, was seen and identified by the lady during a momentary flash of lightning.

In cases of this sort, however, the statements of witnesses ought to be received with some hesitation, unless the accuracy of the testimony is borne out by other and less exceptionable evidence. Thus, Dr. Montgomery states that he was once present at a trial when a witness swore that the prisoner at the bar was one of a party who attacked and burned his house, and that he saw him, at a distance of more than ten yards, in the act of putting a burning coal into the thatch, the night being so bright that he could distinctly recognise his features at that distance. This occurred in the middle of December. Subsequently, a gentleman of undoubted veracity swore that he recollected the night of the attack, and that it was so dark that he could not see his horse's head as he rode along. On reference to the almanac it was found that the moon was at the time in her last quarter.(e)

A trial which occurred in France in 1808 gave rise to some proceedings calculated to throw light on the effects of fire-arms in leading to the identification of the persons discharging them in the dark.

A gentleman's servant, while riding along with him, was wounded by a gun fired at him from behind a ditch and through a hedge. It was an hour and forty-three minutes before the rising of the moon, and the night was dark; yet both the gentleman and his servant swore that they recognised the assassins by the light of the discharge. One of the persons accused was arrested, tried, and condemned; but an appeal was taken to the Court of Cassation. This led to the question being referred to M. Gineau, Professor of Physics in the Imperial College, whether it was possible that the priming on being inflamed could produce sufficient light to discover the face of the person firing. Gineau, in consequence, with several friends, had guns fired off in a dark room and in a court-yard, but found the light so fuliginous and so rapidly extinguished, that those placed around could not distinguish the person firing. The condemned was therefore acquitted.(f)

The erroneous nature of this decision was shown by a case subsequently reported in the same country by Fodoré, as well as by the experiments of Dr. Desgranges, of Lyons, which led him to the conclusion that on a very dark night, and away from every source of light, the person who had fired the gun might be identified within a moderate distance. He states, however, that if the flash was very strong, the smoke very dense, and the distance great, the person firing the piece could not be identified.(g)

A case in point is adduced by Dr. Taylor of a gentleman in England, in 1839, who identified the person who fired at him while driving home in his gig during a dark night.(h)

Some farther light has been thrown on this point, and previous opinions have received certain modifications from the result of a numerous and varied series of experiments undertaken at Constantine by M. Cauvet in December, 1873. His conclusions are that the person firing a pistol may be recognised if the observer is placed very near him (say five paces) at the side of the line of fire; secondly, that he may be recognised by a person when the discharge has been in a close place of small dimensions, the observer in a stooping position or squatting; thirdly, the chance of distinguishing the person firing is affected by the quality of the powder employed, the best English powder enabling the observer when near, and by the side of the person firing, both to see and to identify him.(i)

The identification of persons has been often accomplished by attention to minute circumstances easily overlooked by a careless observer.

In September last (1875) a mother in town (Aberdeen) identified the body of her son, a lad of fifteen, by two very small supplementary mammæ in front of the chest, about three inches below the usual ones. The lad had been drowned at the beach while bathing, and his body carried out to sea. The weather was stormy at the time, and the body had been tossed about at the rocks near the mouth of the harbour for ten days before it came ashore, when the cranium was bare, and the soft parts of the face so much eroded as to be quite disfigured.

Considerable progress has of late been made on the Continent in the study of the effects of those continued influences, physical and chemical, which seldom fail to leave their imprint on different parts of the bodies of workmen engaged in the various trades and occupations. Those which are most distinctive are the appearances on the hands. But though not a little has been accomplished in this direction by the labours of Devergie, and Tardieu,(k) and Vernois,(l) the subject is not sufficiently advanced to admit of being systematically treated. I have had copied out for your inspection the series of drawings

(a) "Cyclopædia of Medicine," vol. ii. page 589. (b) *Ibid.*, page 589.
(c) *Ibid.*, page 589. (d) *Ibid.*, page 589.
(e) "Cyclopædia of Medicine," vol. ii. page 589.
(f) Beck's "Medical Jurisprudence," page 407.
(g) "Taylor's Manual," page 392.
(h) *Ibid.*, fifth edition, page 357.
(i) *Annales de Hygiène*, July, 1874, page 113.
(k) *Ibid.*, January, 1850. (l) *Ibid.*, No. 33.

given by the last-named expert, showing the permanent changes and markings on the hands and feet of workpeople in certain trades.

Again: Identity may be occasionally established by observing that the party is *left-handed*, in cases where a particular wound or injury could have been inflicted by a person thus circumstanced. Thus, in a case in which the late Sir Astley Cooper was concerned as a witness, the prisoner, when pressed to say whether he was left-handed, protested that he was not. When called on, however, to hold up his hand, and plead to the indictment, he unconsciously held up his left hand.

A few years ago a murderer was detected from the mode in which the throat of his victim had been cut. This had been done—not, as is usual in suicides or as is commonly effected by ordinary assassins, by carrying the cutting instrument from before backwards—but as the throats of sheep are cut when slaughtered by a butcher. The prisoner, who was found to have been a butcher, was subsequently tried and executed for the crime.

"Starkie mentions a singular case, which shows that the form of an ecchymosis may occasionally furnish very strong presumptive evidence against an accused party. In an attempt at murder during the night, the prosecutor, in his own defence, struck the assassin violently with a large key, which left a mark by which the assailant was afterwards identified and brought to trial."

Mr. Best has related a curious case in which identity was established from the absence of certain teeth. A thief, who had broken into certain premises, had eaten a quantity of fruit, leaving the fragments lying about. On examining these, it appeared that the person who had eaten them had lost two front teeth, which caused suspicion to fall on a man in the neighbourhood who had lost a corresponding number. On being taxed with the theft, he confessed his guilt.(m)

Instances of a like kind might easily be multiplied, but these may suffice.

A kindred point has been adverted to by our continental brethren as calling for the special attention of the medical jurist—viz., the means of identification of individuals by the examination and measurement of the *footprints* left by them in the ground. I notice this, however, chiefly for the purpose of pointing out the circumstance that it has been contended by Mascar, of Belgium, that the prevailing opinion that the impression of the foot in the soil *always* corresponds exactly with the foot making it, is not by any means a correct one, but that, on the contrary, while in fact instances may occur in which the footprint will be even larger than the foot itself, from the peculiar shape of the shoe, boot, or slipper worn, or from the depth to which the foot has gone, as a general rule it is found that the print in the ground is *smaller* than the foot which has made it.(n)

Mascar is here so far borne out by Caussé, who has also given much attention to this subject, as to the fallacy of the common opinion about the invariable correspondence in size between the foot and its print. His conclusion, however, is not that the latter is most frequently smaller than the former, but that the impression in the soil is usually larger than the foot making it.

This difference of opinion, especially when taken in connexion with the statement common to these two jurists, lessens the value of the proposals which have been made by different parties of means for securing a permanent record, if we may so term it, of such impressions in the soil, for future comparison with the armatures of the feet of parties who may be afterwards suspected to have made them, in the case of murders and other crimes. The most ingenious of these is that of M. Hougolin, which consists of raising the temperature of the impressed ground to above 212°, by holding over it a sort of warming-pan filled with incandescent charcoal, and then dusting stearic acid in fine powder over the foot-marks, which melts and sinks into the part, taking so exactly the form of the footprints, that, when allowed to cool, it may be detached, and serve as a mould for the production, by plaster of Paris, of a fac-simile of the foot of the parties who had left their traces in the soil. The advantage of this plan is, that, however loose the soil—unless in the case of snow—all such evanescent traces can be indefinitely, as it were, stereotyped and preserved.(o)

(*To be continued.*)

(m) *Medical Gazette*, vol. xxxviii. page 825.
(n) Beck, vol. ii. pages 148-9.
(o) *Annales d'Hygiène*, vol. xliv. page 429.

LECTURES ON INJURIES TO THE HEAD.

By JONATHAN HUTCHINSON, F.R.C.S.,
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Lecture VI.

ON CONCUSSION OR SHAKE OF BRAIN.

(*Continued from page 4.*)

We will now proceed to examine, in more detail, the symptoms which usually attend and denote concussion.

Symptoms of Concussion of the Brain, and its Complications.

The symptoms usually produced by a violent shaking of the brain (concussion) are those of disturbance—first, of the cerebral functions proper; and, secondly, of the organic functions which depend more or less directly on the integrity of the nervous system. In slight cases there is little evidence of damage to the latter, and the man becomes simply giddy and confused in his head for a short time, and then recovers. His memory, his judgment, his perceptive faculties, and his special senses, are all put into turmoil and confusion. Subjective results are realised, which have been excellently expressed in one of Mr. Leech's admirable sketches in *Punch*, exhibiting a fox-hunter who has just come to grief. The man's vacant and bewildered countenance denotes to lookers-on the disturbance of his brain.

If the shake have been more severe, individual consciousness is wholly suspended: the buzzing in the ears, the flashes of light before the eyes, and the strangely confused images which the mental faculties originate, are no longer perceived. All power, both perceptive and motor, is lost, and the subject of the injury lies helpless and insensible. With this loss of consciousness there are usually associated other conditions which prove that the more important organic functions have shared in the consequences of the cerebral concussion. The sufferer's face and lips are pale, denoting either spasm of the arteries, or feeble propulsive power in the heart, or suspended *vis a fronte*, or perhaps all of these together. His pulse is feeble, and possibly fluttering, usually, I believe, diminished in frequency; sometimes very irregular. His respiration is performed irregularly, and often with a series of sighing efforts. His pupils may vary, but are usually widely dilated. If the collapse be severe, I should expect the pupils to be moderately dilated.(a) I have, however, had very few opportunities of examining patients in the first shock of concussion, and in one case (supplied by a friend) it is expressly stated that they were contracted.

In the animals on which I have tried the experiment, the effect of severe concussion is the almost instant dilatation of the pupil, with which is also observed instant pallor of the lips.

After the stage of collapse or of enfeeblement of the vascular system, there follows one in which the arteries are unduly dilated, and the heart's action apparently increased in force. Whether the heart is really excited to increased exertion, or whether the phenomena of what is called reaction depend solely upon the removal of all impediment to the flow of blood on the part of the muscular coats of the arteries, is difficult to decide; but that the latter is the chief cause there can be no doubt. The phenomena alluded to are a large full pulse, sometimes "laboured,"(b) at others giving the impression merely of a large dilated artery; and a very warm skin. The lips and ears become florid, and the cheeks flushed. The increase in temperature is not greater in the scalp and face than it is in other parts of the surface, due allowance being made for normal differences. Thus, for instance, if the feet and hands are cool, whilst the trunk is hot, so in the head, whilst the cheeks and ears are hot, the nose will be found to be cold. It is a mistake to suppose that there is any evidence of determination of blood to the head; the head receives an additional quantity of blood in equal proportion with the rest of the body.

In this stage, the pulse is usually not accelerated in frequency

(a) The whole nervous system having sustained shock, both the vaso-motor and third nerves (the contractor and dilator of the pupil) would be temporarily paralysed, and neither contraction nor dilatation should ensue. Extreme dilatation indicates spasm of the vaso-motor or paralysis of the third alone.

(b) I suspect that the difference between what is known as the "full and laboured pulse" and the "full but jerky pulse" depends chiefly upon the previous state of the vessel as regards its nutrition. A feeble person with thin arterial walls can never under any circumstances have a laboured pulse; we meet with it only in the strong and muscular.

of beat. In many cases it is slower than natural, sometimes very slow. In children it is almost always intermittent.(c) In the commencement of the stage referred to, the pulse is usually not below the normal standard as to frequency, often a little above it, but during the next few days it becomes slower day by day. A week or ten days after the injury, it is usually at its minimum of slowness, and subsequently it again increases up to its normal rate.

The stage of collapse in the majority of cases is very transitory. Within a few hours we are accustomed to find the arteries relaxed, and the surface warm. The degree of the collapse, and the length of the time during which it persists, bear no relation to the severity of the case. Indeed, in the most severe injuries to the brain, the collapse stage often passes off very quickly, and we have a full pulse and hot skin within an hour or two of the accident. During the stage of collapse and the early stage of commencing reaction, the patient, if in any degree conscious, almost invariably appears to suffer much from the sensation of cold. He huddles the bedclothes about him, and resists their removal. He lies coiled up, with his chin and his knees as near as practicable. He also frequently yawns. Complaints of subjective cold are often made after the surface has become to the surgeon's hand very tolerably warm, but never, I think, after the arteries have once well relaxed.

Some cases of this kind suggest to the mind that possibly a condition of slight arterial spasm is an element in the production of the symptoms of collapse, especially as regards that of coldness of surface; and, further, that this arterial spasm may possibly persist in some cases after the heart has fairly rallied from its depression. Under such circumstances, we might suppose it possible that the patient could regain consciousness before the supply of blood to the skin was sufficient to remove entirely the subjective impression of cold.

It is an interesting and most important fact that however great may be the heat of the general surface, or the proof of general relaxation of the arterial coats, yet there is never any priapism. The skin of the penis shares in the general increase of temperature, and its erectile tissue is often moderately full of blood, but nothing approaching to the state of erection is ever, so far as I have observed, produced.

Now, the increase in heat and the evidence of capillary turgescence in the lower extremities, for example, is often as great after severe injuries to the brain as it is after injuries to the spine, and it is therefore clear that in the latter some other agency must be at work in the production of this symptom. Nor is it in all injuries to the spine that priapism is present. If the injury be lower than the mid-dorsal region, it will, I believe, not be present, but to this subject I have referred at some length in a former lecture. It is sufficient for our present purpose to note that well-marked priapism seldom or never occurs in connexion with injuries to the brain.

In direct connexion with vascular dilatation, and generally in proportion with other proofs of its existence, we have another important symptom hardly ever absent in the second stage of concussion. The patient is usually overpowered by sleepiness. In mild cases his concussion-sleep approaches very closely to that of health. The face is placid, the eyes are shut, the respiration is free. There is no snoring, except under unusual circumstances. Although the patient will resent any attempts to arouse him, yet his sopor is rarely so great as to permit the unconscious discharge of his excretions. A man who has been asleep for twenty-four hours will at length rouse himself at the calls of nature, tumble out of bed, make water, get in again, and go to sleep directly without speaking. Nor is the sleep so sound that the patient cannot be disturbed. If disturbed, he will act just like a person roused from normal but very profound sleep—will grumble, toss his arms, turn over, address some complaining, and perhaps uncomplimentary, expression to those who have tormented him, and again drop off.(d) In concussion-sleep, as in normal sleep, the eyes are shut and the pupils contracted. You may often hold the lids open for some minutes without awaking the patient, the eye being meanwhile exposed to the fullest glare of light. Whilst he remains asleep the pupil remains contracted. When at length he gives decided signs of waking, the pupil instantly dilates rather widely, again suddenly contracts and redilates, and at length remains stationary at a size three or four times that of sleep. All this is exactly what occurs in waking from normal sleep, with the exception that in most individuals to open the eyelids is usually sufficient to cause almost immediate waking. In concussion-sleep, a patient whose eye is held open may even be made, reluctantly and sleepily, to answer a question without any dilatation of the pupil occurring; but as soon as he is aggravated to the point of making resistance, the pupil will dilate.

If these phenomena are observed as regards the pupil in concussion-sleep, they prove that the sleep is fairly normal, and may become the grounds for a favourable diagnosis. Not unfrequently, on suddenly opening the eyelids and admitting light to a patient in concussion-stupor, the pupils are seen of a moderate size, and contract a little instead of dilating. This proves that the patient was not really soundly asleep: in concussion-stupor rather than concussion-sopor. There can be no doubt that a state of vascular fulness favours, or actually produces, sleep in healthy persons; and in those who have suffered from concussion, this symptom is, in all probability, due to the vascular paralysis and turgescence.

Amongst the phenomena of concussion-sleep, we may note that the skin is usually dry. I have never noticed free perspiration unless either a rigor or a convulsion had preceded it. The skin is not pungent, it is simply warm and dry. The tongue also is either dry or tending to become so. Both these conditions are, no doubt, chiefly due to the state of the nervous system, under which the sudoriparous glands in the one case, and the salivary and buccal in the other, have their functions temporarily suspended. As regards the dryness of tongue, it is by no means constant in slight cases, and we must not forget that it is often very much increased by the circumstance that the patient lies asleep with his mouth open. We may note, in passing, that the state of the nervous and vascular systems favourable to sleep in health are not productive of increased glandular action. Even in health there is often a little tendency to dryness of mouth during sleep, and under many conditions there appears to be a certain degree of antagonism between perspiration and sleep. A condition of dry warmth of the skin favours sleep, and, on the other hand, nothing so much favours this state as sleep. The feet, which may have been quite cold on going to bed, will become quite warm after a few minutes' sleep, the sleep condition evidently favouring in some way the general diffusion of blood to all parts. Probably this is effected by a paresis of the coats of the vessels. Thus we again see the close analogy between natural sleep and that produced accidentally by a shake of the brain.

In an instance which I well remember we had a very interesting proof of the power of concussion in paralysing the vessels and inducing sleep. The man, whilst suffering from delirium tremens, threw himself from a height, and sustained in all probability a fracture of the base of the skull, and a severe shake of the brain. It was believed by the man's friends that he had scarcely slept for a week before. The effect of his concussion was to send him to sleep, and cause him to remain in a very sleepy state for at least a week.

With regard to the prognosis of concussion cases, it may be stated that the more closely the sleep resembles that of health, the more favourable should be our opinion. In many cases a condition of restlessness is often present. When it is, it probably indicates contusion of some part of the brain-tissue. Restlessness and sleepiness very often go together, or rather alternate with each other, in the same case. There is no contradiction in this: two separate influences are at work. Some part of the brain is irritated, either by direct contusion, or by irregular supply of blood: this tends to cause restlessness; but the brain-mass in general is flooded with blood, and this tends to produce overpowering drowsiness. So long as the tendency to sleep is the usual state of things, occasional restlessness need not cause alarm; but if the latter should be the most frequent condition, the prognosis becomes more grave.

With regard to the position assumed by the patient, I doubt if we can infer much from it. A tendency to be curled up, with the head as near to the knees as practicable, has been supposed to be an important sign. I have seen it, however, in all classes of cases—the severe and the mild. It is undoubtedly usually concurrent with restlessness in greater or less degree. In the cases of soundest sleep the patient lies on his back, and so he does usually in the most severe cases when consciousness is totally abolished.

(c) It is an interesting fact that in the tubercular meningitis of children the pulse is very frequently intermittent.

(d) I once, after much trouble, succeeded in arousing a lad suffering from severe concussion, and in the sleep stage. At length he opened both eyes widely, stared at me without speaking, clenched his fist, and shook it in my face with a most absurd expression of sleepy fierceness. Having thus, as he thought, secured himself against further insult, he shut his eyes, and was again fast asleep.

When a man receives a blow on the head, if his stomach be at the time full, digestion will usually be stopped; and as soon as his nervous centres have sufficiently recovered to be able to appreciate the presence of undigested food, a tendency to sickness will ensue. The act of vomiting tends to relax the arteries, and to hasten reaction, and very great relief often follows. It has been well remarked that the sickness does not occur either in the mildest or the most severe cases. It is desirable to bear in mind that its occurrence, or otherwise, will depend, to some extent, upon whether or not the patient had food in his stomach at the time of the accident.

In a few cases vomiting is a troublesome symptom for some days after concussion, and in these it is not improbable that some special damage has occurred near the nuclei of the pneumogastric nerves or to their trunks. As an ordinary symptom of concussion it is usually quite transitory, and ceases as soon as the stomach is well emptied.

During the stage of reaction, after concussion, the bowels and bladder are both usually inactive—that is to say, they are more tolerant of their contents than in a state of health. There is no actual paralysis, and, consequently, no incontinence. When the bladder is very full the patient will empty it; and the bowels may almost always be made to act by the use of purgatives. This torpor is no doubt due to the general shock which the nervous system has received. Just as the arterial coats are relaxed and paralysed, so are those of the intestines and bladder. In addition to this, the reflex sensibility of brain and spinal cord is diminished. Constipation of the bowels is also probably favoured by non-secretion of intestinal mucus, under the same causation as the mouth and skin become dry.

It may, perhaps, be thought improbable, in reference to the theory of arterial paralysis as the chief cause of the phenomena of reaction, that it should be coincident with a vigorous action on the part of the heart. It must be recollected, however, that in concussion the softer parts of the brain-mass will suffer most—the cerebral hemispheres rather than the medulla oblongata,—and there are some reasons for supposing that the nerves to the arteries are more directly connected with the hemispheres than are those to the heart itself.

The last stage of concussion is that of recovery, during which the arteries gradually come under due control of the nervous system, and contract in calibre. The pulse becomes quicker, and not so full; the patient ceases to sleep so much, and all his cerebral functions are in process of recovery. A little headache at times, a little tendency to giddiness, and a few similar evidences of somewhat irregular cerebral circulation, are all that finally remain from the attack. Almost always patients who have suffered from concussion notice for long afterwards that alcoholic stimulants are productive of very undue degrees of excitement. This shows, probably, not any altered state or quality of the brain-substance, but merely that the control over the bloodvessels is imperfect, and that a state of partial and local relaxation is easily induced.

(*To be continued.*)

The Royal College of Physicians.—The lectures of the present year will be delivered at the College, Pall-mall East, on the following dates:—The Gulstonian Lectures, on March 10, 15, and 17, by Dr. Shepherd, on "The Natural History of Pulmonary Consumption"; the Croonian Lectures, on March 22, 24, and 29, by Dr. Dickinson, on "The Pathology and Relations of Albuminuria"; the Lumleian Lectures, on March 31, April 5 and 7, by Dr. Habershon, on "The Pathology of the Pneumogastric Nerve." To commence each day at five o'clock.

Letts' Diaries.—It is very gratifying at the commencement of a new year to welcome the appearance of an old friend, and especially is this the case when the friend is a useful one. The utility of Letts' Diaries is indisputable, although they can only be properly appreciated by those who have been in the habit of using them. We have just received specimen copies of the professional pocket-books and diaries for the present year, published by Messrs. Letts. As usual, they are extremely well arranged, strongly and neatly bound, the paper is good, and they contain much valuable information specially compiled for the use of medical men. These excellent qualities, associated as they are with inexpensiveness, ought to insure a large sale.

ORIGINAL COMMUNICATIONS.

CLINICAL REMARKS ON PHTHISIS PULMONALIS.

GIVEN TO THE STUDENTS OF THE ROYAL HANTS COUNTY HOSPITAL.

By W. ROBERT SMITH, L.R.C.P. Edin.,
Late Resident Physician's Assistant, Hospital for Consumption, Brompton.

In the medical wards of our hospital, during the past six or seven months, I have frequently had opportunities of calling your attention to several interesting cases of pulmonary consumption, and, as far as possible, at the bedside we have studied these cases together; but this afternoon I propose to direct your thoughts more fully to this subject, and I shall illustrate any remarks I have to make by reference to cases which are at present in the wards, or which have previously been under treatment in the hospital.

Phthisis (from the Greek $\phi\theta\iota\omega$), which means, as you know, a wasting or consuming away, is a most important study, from the frequency of its occurrence, and the too often fatal termination in which it results, in medical practice. A reference to the returns of the Registrar-General will show a very large percentage of deaths in this year from this disease. Then, again, it commonly attacks the young, the most amiable, and the most beautiful of the human race. This gives it an importance which, perhaps, belongs to no other disease. What is phthisis pulmonalis, or consumption of the lungs? Broadly speaking, it is the presence of something foreign to the normal lung-tissue, caused either by the deposit of what is known as tubercle, or the infiltration of some other morbid substance equally serious and dangerous. In either case the foreign substance will coalesce and form masses of a soft cheesy character, which rapidly break down, leaving large cavities in the substance of the lungs. Laennec, to whom we are much indebted for our knowledge of chest diseases, taught that phthisis, or, as he called it, pulmonary tuberculosis, was altogether dependent upon the presence of tubercular matter, deposited in the lung structure from the blood, this fluid containing the poison which, after some exciting cause, as exposure to cold or damp air, was laid down in the lungs, the organs most ready to receive it.

Niemeyer's theory as to the origin of the deposit in the lungs is entirely opposed to Laennec's. He contends that no formation of tubercle takes place without previous inflammation of the pulmonary tissue, followed by caseous infiltration.

According to Virchow, tubercle is the result of badly nourished connective-tissue corpuscules; whilst Hughes Bennett, in our own country, teaches that tubercle consists of an exudation from the liquor sanguinis of the blood, differing in a marked degree from the ordinary inflammatory exudation on the one hand, and from the cancerous on the other, because of its low vital energy and incapacity for cell-formation. The blood, he considers, is in a lowly organised condition, and unfit for nutritive purposes, containing an excess of the albuminous elements, and a decrease of fatty matter from a want of proper assimilation of the oleaginous portion of the food. The exudation in the lungs, which tends to produce the substance known as tubercle, is of an albuminous character, a chemical examination showing that it consists principally of albumen and cholesterine, with phosphate and carbonate of lime, and several salts of soda. It has a very feeble vitality, and a great tendency to break down and decay. A cure may be effected in several ways. The tubercle may be converted into a calcareous substance; or it may soften, cause ulceration of the surrounding lung-structure, with expectoration of the degenerated substance, and collapse of the ulcerated walls, which then undergo cicatrisation; or, thirdly, by the persistent formation of a cavity. Recently, many important experiments have been made in this country upon rabbits and guinea-pigs, by inoculating them with tuberculous matter, when, in the majority of cases, they were found to die from tubercular disease. I will not trouble you with the details of these experiments, but merely mention that from them Dr. Sanderson came to the conclusion that in artificial tuberculisation the lymphatic system is the one primarily affected, and not the vascular. He describes the masses of caseous substance as being altogether composed of lowly organised cells crowded together, rapidly undergoing

degeneration, softening, and breaking down. The whole subject, however, has not been yet fully worked out, so that it remains to be seen which theory will be verified. Whatever view may be adopted in reference to the origin of tubercle, I think it is now generally agreed that the term phthisis is not only meant to imply that condition of the lungs which is brought about by the deposit of tubercle, but that it is intended to include all those diseases which are identical in their results: namely, the formation of cheesy masses in the lungs, which more or less rapidly soften and disintegrate, leaving large holes or cavities in the pulmonary tissue. We shall do well to notice these several diseases, or, strictly speaking, varieties of phthisis, before we pass on to study their symptoms and treatment.

1. *Hæmorrhagic Phthisis*, in which blood has been extravasated into the lungs. The blood clots, and ultimately softens, causing inflammation of the surrounding tissue. Whether the blood comes from the bronchial mucous membrane, which is Niemeyer's view, or from the pulmonary substance, is still doubtful. In these cases the first symptom is copious hæmoptysis in persons with apparently no chest affection.

2. *Fibroid Phthisis*, in which the lung is infiltrated with a tough fibrous substance, particularly round large dilated bronchi. In the lower lobes, cheesy masses are found which are softening in their centres; the pleura is thickened and often firmly adherent to the lung by tough bands of fibrous tissue.

3. *Catarrhal Pneumonic Phthisis.*—In this variety there is a catarrh of the epithelium lining the air vesicles, the epithelial cells are greatly increased, and these are either expectorated, or accumulate together, blocking up the bronchi and air lobules. These masses undergo fatty degeneration, and remain in a caseous condition, or they become converted into a cretaceous substance. In the more intense degree of this process the alveolar wall is more or less implicated, and, with the cellular contents, undergoes fatty degeneration to a depth which depends upon the extent of the inflammation, and breaks down more or less rapidly according to its severity. It is in this form of phthisis that you are able to detect microscopically the pulmonary elastic tissue in the sputa, because it resists the inflammatory process. We commonly meet with this variety of phthisis in grinders, stone masons, or millers, owing to the dust or grit which is inhaled acting as an irritant to the air vesicles, causing subsequent inflammation. The man F. who was lately discharged from No. 1 ward, was a fair example of this. If you remember, he never complained of his chest until commencing to work in a mill where grit and dust existed largely in the air; then he complained of short dry cough, and other chest symptoms, which rapidly produced cavities in his lungs.

4. *Tubercular Phthisis.*—In this variety, small granules of a greyish substance called tubercle, consisting, microscopically, of small irregular-shaped bodies, connected together by a structureless membrane, are deposited in the lungs. These granules coalesce, forming yellow cheesy masses, which soften and break down, ultimately forming large cavities. These small deposits are not found scattered at random throughout the lungs; their favourite site is the upper lobes at their apices: if they are distributed throughout the lung, still it is in this situation that they are largest and most ready to soften, and where vomicæ are always found. The average frequency with which one lung is affected more than another has been made the subject of a number of statistical tables. Louis and others found by these that the left lung was more commonly affected than the right; and as far as my own experience goes, of cases occurring at the Brompton Consumption Hospital, this was borne out. I also found that the disease ran a more rapid course in this lung than the other.

I have spoken of tubercle hitherto in especial reference to the change produced by its deposition in the lungs: but the thorax is by no means the only seat of tubercle; it may be deposited in any organ of the body—in the brain, spleen, liver, etc. A very favourite site for it is the lower part of the ileum. You will remember that here a number of oval or circular glandular patches are found, called "Peyer's patches," which are very apt to become ulcerated in enteric fever. These same glands are the frequent seat of tubercular matter, almost as constantly as the lungs. In some cases the evidence of deposit here precedes that in the lungs: we have recently had a well-marked case of this in the hospital.

A young man, I. C., aged twenty, was admitted May 6 last, stating that for the past two months he had been rapidly losing flesh, with frequent attacks of diarrhœa, and slight abdominal pain. He was very thin, with pinched features and slightly hectic appearance. Temperature 99°; pulse 96, weak; tongue reddish. No cough or dyspnœa; bowels slightly relaxed, and tenderness complained of in the left iliac region. A careful examination of the chest revealed nothing abnormal; expansion was good, the percussion-note fair, and vesicular breathing was heard all over the lungs.

In this condition the patient continued for a fortnight. The bowels were still relaxed, the motions being of a watery character. The temperature never rose above normal; pulse was still quickened; and the emaciation was slowly progressive.

May 28.—Complains of short, dry cough. No increase of temperature. On examining his chest, impaired percussion-note, and harsh, jerky breathing were noticed in the left infra-clavicular region.

30th.—Feels much weaker, and disinclined for any exertion; the emaciation extreme.

June 1.—A careful examination of the chest was again made, when the following note was taken:—Chest flattened, especially on left infra-clavicular region; deficient expansion also on the left. Right: Dull in the infra-clavicular region; breathing sounds also deficient; supra-scapular region dull; fine crepitation heard here, with occasional crackles; below, air enters freely. Left: Dull to fourth rib; below, hyper-resonant; vomica sounds; pectoriloquy; below the fourth rib, increased respiratory murmur.

From this day the patient gradually got worse. The emaciation was very great, and the other symptoms were aggravated, until June 8, when death put an end to his sufferings.

Autopsy, twelve hours after Death.—Right lung was found studded with little masses of tubercle, some of which had coalesced and were softening, but no cavity was discovered. Left lung: A large cavity in the apex, on the walls of which were deposited little granules of a tubercular nature. Liver and spleen normal. Intestines: In the lower part of the ileum and in the colon there were patches of ulceration, particularly in the ileum, whilst tubercular deposit also was found.

This case is interesting, as it illustrates very well the fact that tubercle may be deposited in other places previous to its appearance in the lungs. No evidence of tubercle in the chest could be detected in this poor man until nearly a month after his admission, but for a long period he had been complaining of diarrhœa. The rapid loss of flesh was the most marked sign. The diagnosis from typhoid fever, of which there was a suspicion upon admission, was made by the absence of the ochre-coloured stools, of the abdominal spots, and high temperature.

The larynx and trachea are frequently affected with tubercular ulceration, but this usually occurs after evidence of pulmonary disease. If the epiglottis is ulcerated, the ulceration is always found upon the laryngeal surface. The liver is commonly affected in phthisis in one of two ways. It may be fatty, giving a greasy appearance to the scalpel which cuts it, and presenting a pale yellow nutmeg surface. The second way is when the liver is infiltrated with an albuminous substance, so that on section it appears glistening; this is termed the waxy or lardaceous liver.

Having studied so much of what may be called the morbid anatomy of phthisis, let us pass on now to consider the signs and symptoms which mark its progress. And I would advise you to be methodical in your examination of a patient: inquire first into the history, then note the present symptoms, and finally examine the chest.

One of the earliest symptoms of tubercular mischief in the lungs is a short, dry cough, coming on generally when the patient is getting up in the morning, but is likely to be occasioned by any slight exertion. After a time, a little mucous expectoration accompanies this; the patient feels ill, is languid, the slightest exertion tiring him; he complains of aching pains beneath the shoulder-blades, or, more rarely, below the clavicles; the appetite is indifferent, and pulse slightly accelerated. There is not much dyspnœa, and the want of this symptom often misleads the patient; he tells you he can take a deep breath, and hold it for some time,—he will frequently illustrate his remark, when you find his statement to be true. In women the catamenia generally cease about this time. As the disease progresses, the cough and expectoration increase; the latter frequently contains bright-scarlet blood, to the

extent of one or two teaspoonfuls, mixed with it in a streaky manner. Hæmoptysis may almost be considered as pathognomonic of tubercle, and always is the symptom which creates most alarm in your patient: be careful to notice whether it is dependent upon anything else, such as disordered menstrual functions, heart disease, or affections of the throat. With all this there is slow progressive wasting. As time goes on the mischief increases: the appetite is quite lost; hectic fever appears; the patient sweats profusely at night, particularly on the palms of the hands, on the face, chest, and soles of the feet; darting pains are now complained of in the chest, going through to the shoulders; there may also be sharp catching pain in the side, owing to the pleura becoming affected; the cough increases, being worse at night, and often continuing until the patient feels sick; the expectoration becomes profuse, and of a yellowish character—muco-purulent, as it is called,—and the decubitus of the patient is generally on the sound side. I want you to notice this particularly. In pneumonia the decubitus is on the affected side, of which the explanation is satisfactory enough, viz., that the other side has double work to do, and the expansion of the lung is consequently facilitated; but in phthisis the reverse is the case,—the decubitus is on the sound side, or, at least, on the one less affected. This peculiarity you will notice only when active disease is present in the lungs. In the Hospital for Consumption I find by my notes this was invariably the case when the physical signs revealed the second stage of consumption; but when the disease was chronic the patients generally lay on the affected side or the back. Another interesting fact which it is as well to point out here, and to which I have frequently directed your attention, is that the hectic flush is most apparent on the cheek corresponding to the side which is affected. After this active stage of the disease, the symptoms either tend rapidly to death, or they decrease in severity: in the one case the hectic fever and night-sweats continue, with harassing cough, profuse expectoration, and great difficulty at night in bringing up the phlegm—it seems to clog about the chest. At this time, also, there may be great hæmoptysis, as in the case of the man S. in No. 1 men's ward, and often diarrhœa and aphthæ. If the disease becomes chronic the fever decreases, the night-sweats disappear, and the expectoration is also diminished greatly in quantity; the breathing, however, still continues short and difficult, the cough troublesome, appetite indifferent, and frequently pain will be complained of in the loins; diarrhœa will constantly alternate with constipation, and the patient will progressively waste; he may gain flesh under careful treatment, but the tendency will be for him to lose ground.

The pulse is generally quickened in phthisis, but cases sometimes occur in which it remains of a healthy standard throughout, so you must be on your guard to meet these.

The expectoration in phthisis, I have told you, is first mucous, then muco-purulent, and but slightly frothy; this is not, however, entirely owing to the breaking-down of lung tissue, but is partly dependent upon the condition of the bronchial tubes. The only kind of expectoration which is almost pathognomonic of vomica produced by tubercle is like that which you have before you, belonging to the man B. in No. 1 ward; it consists of little masses of gray flocculent matter, which, when spat into an empty vessel, become flattened, and remain separate like small coins, and are therefore called by the French "nummular sputa." When placed in water you see some sink, others float, and others remain at different depths. In some cases the expectoration is calcareous; and in others, as I have before mentioned, the microscope reveals portions of the yellow elastic tissue of the lungs. Hæmorrhage is always a grave symptom, recurring most frequently in the primary stage of the disease, and, where there is no evidence of cardiac mischief or uterine derangement, may be considered almost pathognonomic of phthisis; it does not always occur in the latter stages of consumption, and the wonder is that it is not a constant sign, considering the amount of pulmonary structure destroyed. In many cases it occurs in large quantities for some time before death. You will remember this was the case with the patient S., to whom I have before referred. He spat up more than half a pint of bright arterial blood at a time, for some eight or nine days before his death. In these cases the patient is covered with a cold, clammy sweat, a fit of coughing comes on, and the blood in many instances literally pours out of the mouth. Very often this is caused by rupture of a pulmonary aneurism.

Let me read you the notes of a case which occurred in the Brompton Hospital:—

F. L., aged fourteen years, nursemaid, was admitted into this hospital August 3, 1869. Last Christmas she complained of cough and pain at the chest; during the months of January and February she had profuse hæmoptysis, varying in quantity from half a pint to a pint. Her father and mother both died of phthisis. Has lost much flesh. She complains of cough; much muco-purulent expectoration, anorexia, nausea, dragging pains at the right side, with sensations of flutterings at the left. Upon examining the chest, it was found to be narrow and long. The right side was resonant, and the left tympanitic on percussion. Auscultation.—Right: Humid crepitation to the fourth rib; below this, respiration was normal, but somewhat puerile. Left: At the apex cavernous sounds, with gurgling; below this, humid crepitation to base.

Diagnosis: Phthisis, second stage, right; third stage, left.

The patient did not improve under treatment, but became gradually weaker, and lost flesh.

In September, cavernous sounds were detected on the right side.

November 14.—Patient appeared much as usual, having no special symptom to complain of; but at 5 p.m. she was seized with hæmoptysis (to the extent of twenty-four ounces), whilst in the kitchen, where she was found in such a state of collapse that it was not deemed prudent to remove her. Under careful treatment she so far recovered that at Christmas she expressed herself as feeling much better, and wished to leave.

February 9.—At 6 p.m. this morning she was again seized with hæmoptysis to the amount of a pint and a half, and died in ten minutes.

Autopsy, twenty-four hours after Death.—Right pleura adherent. Several cavities were found in the lung, with pneumonic consolidation at the base. Left pleura universally adherent, especially posteriorly and to the diaphragm. On section, the lung was found converted into several large cavities, which were filled with liquid grumous blood. Upon the walls of one of these cavities an aneurism of the pulmonary artery was detected, which had ruptured, and given rise to the profuse and fatal hæmorrhage. Heart was small, and several clots existed in both sides. The other organs were all normal.

Sometimes there is internal hæmorrhage into the lung without any hæmoptysis. This, however, is very rare. I remember a case occurring at the Brompton Hospital. A man, who had a cavity in his left lung, applied for a pass two months after his admission, and, being in very good general health, it was granted him. Shortly after his return, he was found in the lavatory in a state of collapse. He was covered with a cold clammy sweat; the extremities were quite cold; no pulse at the wrists, but slight pulsation in the carotid; with much gurgling over the left side. The patient died in ten minutes. At the autopsy, the left lung, which was converted into several cavities, was found filled with liquid arterial blood. Before an attack of hæmoptysis the patient will frequently complain of a fluttering at his chest, similar to that produced by a small bird; he likewise has a peculiar saltish taste in the mouth.

A STUDY OF A CASE OF IMPULSIVE INSANITY.(a)

By JAMES MACLAREN, L.R.C.S.E.,
Senior Assistant-Physician to the Royal Edinburgh Asylum for the Insane.

A STUDY and analysis of the records in the medical journals of those cases in which impulse was the leading feature, and more particularly of those in which the ultimate acts were of a homicidal or suicidal character, shows that these were for the most part attributed to the possession by the perpetrator of delusions or hallucinations, to a sudden access of mania, or to the presence of epilepsy and its subsequent vertigo. Failing any of these, the act was put down to the presence of an irresistible impulse. To give examples or details of cases illustrating any of these but the last would be a most superfluous task. The sensational interest of such cases, and their tendency to result in acts which ultimately led to a criminal trial, were alone

(a) Read before a meeting of the Medico-Psychological Association held in Edinburgh, December 14, 1875.

more than sufficient to make them favourite subjects for the exercise of such literary talent as their reporters might possess. So it has happened that for the last twenty years the medical journals in general, and specially those connected with insanity, contain a vast number of such cases, recorded at very great length, and characterised, with a few notable exceptions, by a singular absence of facts of medical interest. Graphic details of the horrors of the events, and doleful lamentations over the hard-heartedness of counsel, the stupidity of judges, and the general perversity of the law; and, to conclude, a eulogium on the keenness of perception of the writer,—that is the model on which a very great number of the papers on this subject are founded. A minute study and clinical and psychical history of the cases is rather the exception than the rule. Particularly in that large class of cases where the simple irresistible impulse is put down as the moving cause, I venture to think that a study of the sensory and motor phenomena, as well as of the psychical peculiarities, would lead often to very different views being held of their true nature, and would open up a hitherto little explored region of brain pathology.

It has been my lot lately to have directly under my care, or the opportunity of studying, several cases in which dangerous impulse was the leading feature, but it would be superfluous to enter into minute details regarding them. To all who hear me, a description of the wild gusts of dangerous violence that occur in epileptic vertigo, the cunning and ferocity of the patient who is the victim of delusions and hallucinations would be a thrice-told tale. But one case, which comes under none of these varieties, and which is strange, complex, and suggestive in its manifestations, I have thought worthy of notice for a few minutes.

Late on the night of July 13 of this year a lady whom we shall know as Mrs. Z. was brought to the Royal Edinburgh Asylum, labouring under great excitement, and bleeding from wounds in her mouth caused by her attempts to swallow pieces of the glass of the cab-window which she had broken. Her insanity was very early seen to be of a kind in which the leading features were impulsive acts of a sudden and a most dangerous character to herself and to others. She is not an epileptic; she has no delusions or hallucinations, or, if she is possessed with the former, they are of a kind belonging more to a mild state of dementia than anything else, and are fleeting; and she has at any time only occasional and often no consciousness of the irresistible impulse which is frequently put down as the cause of dangerous acts otherwise difficult to account for. In her the paroxysm of violence has the following characters:—It is periodic; it is accompanied by always partial, frequently total, unconsciousness, and consequently followed by a similar state of forgetfulness of her acts; it is preceded by sharp pain in the head, and followed by a dull pain in the head, dizziness, and confusion of ideas. There exist also certain neuroses, but these will be detailed in the course of the history of her case, which it will be well now to enter on.

She is forty-three years of age, the fifth child of a family of fourteen. Her parents are both of a neurotic type; her father is almost totally deaf, and a brother of his died insane. That is not a very strong neurotic history, perhaps, but, making allowance for the possible reservations of a sensitive relative, it indicates a decided tendency to nervous weakness. Her mother dwells on the border-land of insanity; she was always a person of very peculiar disposition, suspicious, unreasonable, and of an exceedingly high-strung and nervous temperament. This was her condition previous to marriage. Its cares and troubles, and particularly the mental and physical wear and tear involved in the bearing and nursing of fourteen children, told badly on her. Her confinements were severe, and after them she was subject to alarming floodings; at her menstrual periods, too, the hæmorrhage was always excessive. That all this told on her severely was noticed by her friends in her increasing debility, nervousness, eccentricity, and irritability as she advanced in years, and, to anyone who could read the lesson, was confirmed by what seems to me a very curious fact. She had, as I have said, fourteen children: the first four of these were fairly healthy, and are still living; then came the subject of the present note, regarding whose mental and physical health we shall presently hear; and after her came nine children, all of whom are now dead. The elder ones lived longest, and then, as the mother grew in years, and the strain on her became greater, the duration of the life of her offspring shortened. It is true that none of them died directly from brain disease; still, it does not seem too much to assume, with the history I have described, that the parents were at first able to procreate healthy offspring, that this began to fail with Mrs. Z., and that after her the strain became greater and greater, and so they produced children only in the poorest degree endowed with the power of living. The inverse ratio between the age of the parents and the duration of life in the offspring seem too marked and definite to be due to accident or chance. So, then, in this neurotic couple we have them in their early married life transmitting to their children health, later on insanity, and ultimately a tendency to early death.

And here, forestalling its position in the history of her case, comes in another step in the descent and progressive degeneration. Mrs. Z. has become pregnant several times: one child is alive; one lived a few months; all the rest were born prematurely. The child which is alive is, as regards his mind at present, precocious and talented, writes letters in a style beyond his years, reads books on natural science, and is fond of sketching and painting, and thought exceedingly gifted by his friends. With the history I have detailed, and after this description, it is almost superfluous to say that he is stunted in body, weak and miserable, and often barely kept alive by constant and most careful watching.

I have now to speak of the personal history and characteristics of the unfortunate lady who is the subject of this sketch. As I have said, she was the fifth child of her parents. In her early years she was only noted for everything that was good and amiable. In this I am not taking the words of possibly too partial friends, but of others who knew her more or less intimately; and one and all bear testimony to the fact that, as regards the possession of many good qualities, she was far above the average. Kind and loving, very gentle and quiet, but apt to become emotional on trifling provocation; devoted as far as her strength permitted to all good works, generous even to a fault, and earnest in season and out of season to do her duty,—such is the account of her in her early days. From her earliest years religion was part of daily life, not engrafted on to her other duties, but forming the moving principle of all she did. She belonged to a devout family and a devout sect, and so by education as well as temperament was thoroughly and entirely devoted to sacred thoughts and duties, and was noted among her friends for the emotional fervour and power of her prayers. In ability, too, she was above the average—clever, studious, and painstaking.

At the age of twenty-three she married her present husband—a gentleman in every way calculated to make her happy. It was long before he noticed anything particularly strange in her manner or conduct. Certain slight peculiarities, a morbid sensitiveness as to possible wrong-doing, occasionally excessive emotionalism, and once or twice, when in circumstances calculated to excite or distress her (such as being in the company of uncongenial people or those of a higher social rank), a tendency to become rambling and incoherent,—these were, as far as he can remember, the only facts that called for notice or excited alarm. Still it was of the slightest; for she had always been somewhat unlike other girls of her age, and inclined to strange and wayward (though serious) turns of thought and expression; and for long the knowledge of this prevented much or any attention being paid to passing acts of eccentricity or unwonted modes of speech. Excepting these (and they had been so slight that it is only now, on close inquiry being made, that they are recalled) she for long after she was married led the same kind of life she has been described as doing before, and was foremost in every good work and kind action. Still, it is not difficult to trace the gradual invasion of the malady of which she is now the victim.

Some years after she was married, and ten years ago, the boy already mentioned was born, but previous to that and since she had several times aborted. On each occasion her bodily weakness from excessive flooding was great, and her mental distress at the unfortunate issue very painful. Two years ago she again became pregnant, and, greatly to her joy, was delivered of an apparently healthy boy, and for a little while the caring for it seemed to restore the balance of her mind. However, it was only spared to her for a few months, and its death and the final and marked access of her insanity occurred together. During her pregnancy, and for some months before, the little abnormalities I have mentioned were beginning to become more and more marked. Her religious feelings became of the most exalted character, and her emotionalism excessive. On one occasion, while walking with her husband in a frequented place, she knelt down and prayed for strength to

bear her coming trial; and her benevolence and generosity, always prominent features in her character, became almost unbounded, and frequently quite unreasonable. When the baby came, her attention was taken up with it, to the exclusion of everything and everyone else. Then it was taken away, and from that time is dated the marked unmistakable arrival of the insanity. General excitement, an altogether morbid and excessive fear regarding her religious state and future salvation, and an excessive sensitiveness as to the possibility of ever having in any way wronged anyone with whom she might have had dealings, were the early symptoms she displayed. Then sudden and unaccountable outbreaks of dangerous violence, attempts at self-destruction occasionally, most destructive tendencies in every respect, rendered her removal to an asylum imperative. She was accordingly taken to a private establishment, where she remained for a few months, gradually getting worse and worse. During this time a hæmatoma of the left ear developed itself, and ran the usual course, leading to the shrivelled and characteristic insane ear. She was brought, as I have said, to Morningside last July, with the reputation of being a patient most dangerous to herself and others, and requiring constant and careful watching and supervision; and she has more than justified all that was said of her. She had not been long a patient before it was noticed that her case presented many points of singular and great interest. Her constant and seemingly unwearied attempts to commit some destructive act, and the care and ingenuity required to baffle these, made her an object of much thought and no little anxiety; but quite apart from that, which is not so very rare an experience for an asylum officer, there is in her case such an amount of strange contradiction, and contrast of light and shade, as to make her a puzzling and interesting study. Instead of extracting the details of daily entries in the case-book, I will endeavour to give a brief sketch of what manner of woman she is.

First, as to her appearance—she is slight and almost undersized, a very gentle-looking lady, with a pale, pretty face, light hair, and blue eyes, a singularly kind, pleasant, winning manner, and a soft, quiet voice. Second, as to her mental state—free from excitement, she is what she has already been described as, thoroughly devout and good. Her memory and judgment are in all but one respect correct. Thoughts of her husband and child, bitter regret at her separation from them and at her sad calamity, a constant and prevailing desire to do what is right, and an excessive and morbid sensitiveness lest her slightest word, or look, or action may be in any way wrong. That is the bright side of the picture of a singularly pure but sadly imperfect nature. Now for the *reverse*.

It is difficult in a pen-and-ink sketch to give an idea of the intense impulsiveness of her acts. I am not at all exaggerating when I say that little short of being possessed by the devil would account for her conduct. She will sit reading her Bible or some good book, or talking in her quiet, gentle way to her attendant, when suddenly, without a moment's warning, the book is flung through the nearest window, or at whatever is breakable at hand, then she makes a rush to run her head into the fire, or turns on her attendant, tears her clothes, or tries to strangle her. All this without speaking a word, except, perhaps, an occasional muttered text of Scripture; but, beyond that, she keeps quite silent, and struggles on quietly but fiercely, till either exhausted, or restored by some apparent process of awakening to her former condition. Excitement, of course, there is in plenty, but it is very different from that associated with more ordinary forms of mania. There is no noise or shouting; her eyes are fixed and suffused, her face flushed, and her teeth clenched, and every muscle is on the strain; but the whole time she is perfectly quiet, and struggles on with a fixed, determined purpose expressed in her whole manner, but without wasting a word.

There is no use dwelling too long on the various destructive acts that she has committed. I might, I believe, go on for hours, and not have completed the list. Suffice it to say that there is hardly a method of attempting violence that the mind could conceive, that she has not had recourse to. At one time, but only for a few weeks, her acts took the form of exposure of her person, and in this, too, suddenness was the marked feature. I have seen her weeping bitterly at the sadness of her lot, and praying for some help, and while the words were still on her lips, throw herself on the ground, and pull up her dress. Once or twice about this time there was a slight increase of her general excitement, and she laughed and talked more than usual; but, as a rule, the exposure was something altogether different from the ordinary suggestive act of an erotic female. This latter complication, however, did not last long, and has not returned.

Now as to the nature of her paroxysms. Though not very definite, there is no doubt that there is a certain amount of periodicity in them. It is not hard and fast, but her attendants notice that she has, as they put it, a good day and a bad one, or two good days and two bad ones. The suddenness of their arrival has been already dwelt on. She often suffers sharp pain in the head for a longer or shorter time previous to an attack, but the transition from perfect quiet and gentleness to her wildest paroxysm is instantaneous. Then (and this seems to me a very important point in her history) there is, as a rule, entire unconsciousness and forgetfulness of what passed during an attack. I have often taken her carefully over the events of a day in which one had occurred, and invariably found her correct and precise in every detail till we reached the onset of the seizure. Then all was a blank, and she only remembered that she seemed to faint, and then found herself lying on a sofa with an aching head, and confused and stupid. Occasionally, and if her seizure has not been very severe, she has some slight recollection of her act and of the impulse which led to it, and the latter is always a feeling of imperative necessity, that it is her duty to do as she has done; but in by far the greater number of her attacks, unconsciousness during and after was the rule.

There are a few physical phenomena connected with her case that I will now mention. The insane ear has already been recorded. Her tongue is tremulous and points markedly to the right side. After an attack she has a slight stutter and thickness of speech. The right pupil is more dilated than the left. During a paroxysm both pupils dilate and contract constantly and independently of each other, so that sometimes one and sometimes the other is the more dilated. Her hair is exceedingly dry; her temperature is normal, with a steady increase of two points in the evening over the morning figure. Her menstruation has not returned since her last child was born. Her sensibility is at all times dulled; during an attack it is greatly impaired. The reflex action of the cord is much dulled.

What is the nature of her insanity? Her attacks, read alone, seem only to want one factor—epilepsy—to make all complete. This, though, is wanting; she is not epileptic now, and has never been so; and her present attacks, though bearing not a little resemblance to it, are not epilepsy. That her motor centres and the circulation in her brain are diseased, the outward signs I have told show, but that only leads us half-way, if so far. Why is it that this gentle, loving lady, who mourns her affliction so greatly, and who would fain struggle against it, so that she might return again to her husband and her child,—why is it that at the very moment she is penning kind words to them, or thinking kind thoughts of them, she should be dragged into the committing of acts which she abhors, and of which she is happily unconscious? And yet, though in her calmer moments she is oblivious, still these acts were governed by a direct controlling will,—they had an object, and were carried to a definite end.

It is a strange condition of dual consciousness. Whether she remembers in each paroxysm what happened in the last, I cannot say, but I think she does, and it is certain that she follows out trains of thoughts in successive attacks, of which she has no consciousness during a remission. For instance, of late, as soon as a seizure comes on her, she makes particular efforts to get at one special picture in the room. When the attack has passed, this picture awakens no feelings in her at all, and she has no recollection of anything particular connected with it; but as soon as the excitement returns, her attention fixes on it at once.

ON A SKIN AFFECTION IN CHILDREN THE SUBJECTS OF CONGENITAL SYPHILIS.

By ARTHUR DOWNES, M.D.

In his notes on some cases of membranous ophthalmia, in the *Medical Times and Gazette* of September 18, Mr. Nettleship described a doubtful form of skin disease occurring in an infant. Syphilis, he says, furnished the most probable explanation, although there was no history of suspicious symptoms, either in the mother or in her previous children.

In this child the skin of the body and limbs was erythematous and desquamating in flakes more or less large. The scalp and eyebrows were covered with a dry, eczematous crust of considerable thickness. Mercurial inunction was ordered, and zinc ointment applied locally. At the end of a fortnight the child had much improved.

This description reminds me forcibly of two very similar cases recently under my care.

Mrs. C. was delivered of twins in July last. The elder, a girl, was very puny, and snuffled for a few days; the younger, a boy, seemed more healthy. The mother had no milk, and the children were reared by hand. When about three weeks old they began to lose flesh, and to acquire the peculiar wrinkled agedness of hereditary syphilis. They had suffered from the common sequence of thrush, diarrhœa and intertrigo. An erythematous redness now spread from the perineum and thighs downwards over the whole of both legs. The surface was dry, red, and shining, and the cuticle was peeling in layers consisting of epithelium only, and varying in size from small scales to flakes as large as a crown-piece. The same appearances were seen on the abdomen, and on the back as high as the shoulder-blades. The back peeled more than the belly. The arms were comparatively free, except a little about the upper parts and flexures of the elbows. An eczematous crust, thick and dry, covered the scalp; it was raised on a dull red, somewhat coppery, infiltrated base. On getting these crusts away by poulticing, a slight serous discharge was seen from the denuded surface. A few inflamed pimples appeared about the groins and thighs from the irritation of the urine. There was never the slightest discharge except that from the eczematous scalp. This point was specially watched, both by the mother and myself. The whole surface of the legs and the greater part of the trunk was simply red, dry, shining, and peeling in large flakes. The soles were affected in the same way. There were no excoriations, and never anything like a bulla. The children were fretful, but took nourishment well. The temperature, when I observed it, was always normal. Both infants were affected alike. Small doses of grey powder and inunctions of mercurial ointment into the sound portions of skin were the only treatment. Nothing was done locally, except poulticing off the crusts on the scalp. The children improved very rapidly, and in four or five weeks but little could be seen. A faint pigmentation marked the upper limit of the rash on the back. The mercurial inunctions caused no irritation.

Remarks.—There are one or two points of interest in these cases. Firstly, the wonderful uniformity in both throughout; which is, however, no more than we should expect in two individuals subjected to conditions exactly similar. Secondly, the influence of syphilis. Like Mr. Nettleship, I could find no symptom of syphilis in the mother. The only child born previously had died of bronchitis in infancy, but was said to have had a similar rash. The father, however, cleared up the matter by coming under my care for unmistakable secondary symptoms. "When the mother infects the embryo, the disease is probably more severe than when the father alone is syphilitic, and thus such embryos usually perish, so that a great majority of children with congenital syphilis have inherited it from their father" (Meigs and Pepper, "Diseases of Children"). I cannot pretend to say to what class of skin disease we should refer these cases. As to the scalp affection, there can, of course, be no doubt that it was an eczema, modified, perhaps, by the taint of syphilis. But what are we to call the rest? Is it an eczema too? But the most careful watching detected no discharge. Hyperæmia of cutis and desquamation of cuticle were the only positive symptoms. No infiltration, no excoriations. These negative characters point to pityriasis rubra. Dr. Tilbury Fox says: "I have seen it (*i.e.*, pityriasis rubra) in children . . . . There was a possibility of its being syphilitic in some cases. In children it has seemed to me to be less severe than in adults; to affect a large portion, but not the whole, of the cutaneous surface. It has disappeared in the course of a few weeks in children under the exhibition of tonics, diuretics, and the use of local emollients" ("Skin Diseases," second edition, p. 262). But how many diverse affections have been included under the term pityriasis rubra may be inferred when we find Cazenove and Schedel on the one hand saying, "Le pityriasis rubra est une maladie peu grave, qui ne determine jamais d'accidents"; while Hebra, on the other side, states that, according to his experience, it has always terminated fatally.

St. Leonard's-on-Sea.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CASES OF DISEASED BONE TREATED BY SULPHURIC ACID.

In our report, a few weeks ago, upon the treatment of necrosis and of diseased joints by the application of sulphuric acid, we promised in an early number to give the details of some few cases which have been so treated. We now report three cases which have been under the care of Mr. Durham in Guy's Hospital, and two cases now under Mr. Pollock at St. George's Hospital.

GUY'S HOSPITAL.

(Under the care of Mr. DURHAM.)

In none of these cases was suppuration checked. In each pain was suffered some time after the operation, if not immediately; in each the pain continued for several days.

Case 1.—*Diseased Ankle—Sulphuric Acid—Unimproved—Taken away—Amputation—Recovery.*

Emma S., aged four years and a half, was admitted into Guy's Hospital on June 8, 1875. She is one of six children; all the others being well and healthy, as are her parents. About Christmas she received a blow on the left ankle from a stone, after which she walked for a fortnight without any sign of injury, but then began to walk lame, and complained of her left ankle. Soon after, her ankle became swollen. The swelling and the pain became worse, and for the last two or three months she has not been able to put her foot to the ground.

On admission, great swelling about left ankle, most marked beneath external malleolus, extending across in front of ankle to and beneath internal malleolus. Distinct fluctuation to be felt beneath external malleolus. The joint is slightly inflamed, and great pain is caused by any movement or pressure. Foot extended.

June 15.—Large abscess, nearly through skin, over externa malleolus; only little swelling in front and inner side of joint. Chloroform given. Esmarch's bandage applied. Free incision made on each side of ankle, letting out a quantity of pus and pulpy material. Cavity of joint then wiped out, and afterwards plugged with strips of lint soaked in one part of strong sulphuric acid to two parts of water. No bleeding. Oakum bandaged around, and back splint applied.

16th.—Temperature 99°; pulse 110; respirations 20. Good deal of pain after operation. Crying and restless all night; to-day easy.

17th.—Temperature 99·8°; pulse 144. Crying and restless, but no pain apparently.

19th.—Pulse 138. This evening, at about 6.30, the bandages were found to be soaked in blood, and some blood commenced to run into the bed. Chloroform was administered, and the dressings taken down. Three pieces of lint which had been stuffed into the joint were found in a pulpy and charred condition, and a large slough was visible on the outer side, which left nearly an inch of the end of the fibula, with its cartilage intact, but apparently denuded of its periosteum, projecting through the wound. On the inner side there was not much sloughing. The bleeding appeared to proceed from a general oozing in the cavity on the outer side. Some pus was found underneath the tendo Achillis, above the wound. This was squeezed out, and the bleeding was restrained by stuffing a sponge covered with tannic acid into the wound on the outer side. The whole ankle was then covered with lint soaked with carbolic oil, and put up again upon the back splint. No more bleeding occurred.

21st.—Chloroform given for dressings to be renewed. Wide gaping opening on each side leading into joint; interior looking sloughy; parts around inflamed and swollen; syringed out with carbolic lotion, and dressed as before. Temperature 101·4°. 2.45 p.m.: pulse 136; temperature 100·8°.

22nd.—Temperature 101·4°; pulse 84. In the evening cried very much, and complained of pain. Chloral given. Chloral has been given every night since operation.

23rd.—Temperature 101·1°. Trunk, arms, and legs covered with roseolar rash.

24th.—11 a.m.: Temperature 98·4°; 11.45 a.m.: Temperature 100°; pulse 148. Rash fading; tongue clean; no sore

throat. Had quieter night after morphia injection; now fretful and restless.

25th.—Taken home last evening.

Amputation was performed through the leg at the middle third some days after by Mr. Durham, the child being under the care of Mr. Roper, of Blackheath. Rapid recovery followed.

Case 2.—Pulpy Disease of Knee and Carpus—Visceral Disease—Sulphuric Acid—Unimproved—Amputation refused.

George S., aged seven, admitted on May 12, 1875. He has had disease of the liver, and bronchitis. Five months ago a small round lump was noticed on dorsal surface of wrist, and a week or two after, patient complained of pain on outer side of knee, and a small swelling was noticed on both sides of this joint, which was painful on pressure on inner side.

On admission, the outline of the knee is lost, and there is much swelling, which is most marked over the internal condyle of the femur. The knee is kept in a semi-flexed condition, and the child is not able to flex entirely or to straighten. On outer side of patella there is a hard swelling which feels like bone, and on inner side there appears to be some fluid; skin tense and thin; veins distended. On the dorsal surface of right wrist there is a swelling over all the carpal bones, extending to about half the length of the metacarpal; the swelling is uniform, firm, and connected with bones below; there is also a swelling, soft in nature, on palmar surface, but not so large as that on the dorsal; local temperature raised.

June 15.—Patient chloroformed; Esmarch's bandage applied over wrist; vertical incision three inches long over carpus and metacarpal bone of index-finger; quantity of pus let out; disease appearing to be in carpal articulation; cavity then plugged with lint soaked in sulphuric acid and water of the strength of one part of the former to two of the latter; wrist and hand were put up on splint covered with oakum, and bandaged. Knee then operated on. Esmarch's bandage; incision each side of patella; serous fluid with flakes of lymph evacuated; synovial membrane swollen and pulpy; cleaned out by strips of dry lint, and then plugged with lint soaked with sulphuric acid and water of the strength of one part of the former and two of the latter; one or two vessels twisted; joint surrounded by oakum, bandaged, and splints with interruption applied.

16th.—Temperature 99°; pulse 90; respirations 24. Very restless all evening and night; crying a good deal. To-day comfortable, and no pain at all.

17th.—Temperature 98·6°; pulse 88; respirations 28. 12 noon: Temperature 100°; pulse 104. In no pain, and tolerably happy.

19th.—Temperature 98·6°; pulse 90. No pain.

21st.—Temperature 98°; pulse 96. No pain. Chloroform given, and dressing removed, when the wounds presented a dried, charred appearance, without swelling. The skin around the inner opening for about three-quarters of an inch, and for about half an inch around the outer opening, was gangrenous. Dressed with oiled lint.

23rd.—Temperature 101°; pulse 110. Last night cried very much, and appeared in great pain.

26th.—Temperature 99·2°; pulse 110. Bandages taken off; slough separating; the gangrene of skin as described on 21st not extended further, and is separating; pus in outer wound of knee extending upwards, so leg suspended slightly lower. Pus in cavity in hand; slough separating; also edges of wounds for about a quarter of an inch.

28th.—Temperature 100°; pulse 110. Last night crying very much; chloral given; dressings taken off; hemlock poultices applied; hypodermic injection given.

29th.—Great discharge on poultices; more poultices applied. Temperature 99·2°; pulse 112.

30th.—Temperature 99°; pulse 110. Poultices changed three times a day; a great discharge of pus, which smells badly.

July 6.—Temperature 99°; pulse 118. There is a good deal of discharge from the knee; poultices continued.

13th.—The poultices are now left off the leg.

15th.—Temperature 98·6°; pulse 120. Urine albuminous, containing blood corpuscles; specific gravity 1020. Abdomen distended; liver enlarged.

16th.—Temperature 99°; pulse 116.

21st.—Temperature 98·8°; pulse 126. The wounds have a healthy appearance, and are going on nicely. Washed with carbolic lotion, and dressed with lead and morphia lotion. Urine normal.

22nd.—Temperature 99°; pulse 124. Abdomen much distended, also veins over abdomen. Several large sequestra have been removed from the knee—portions of articular cartilage of femur.

August 26.—There is a great deal of swelling about knee; the wounds continue open, and there are deep sinuses running down between tibia and fibula, discharging freely.

28th.—Temperature 99°. Wound on carpus leading down to necrosed bone.

September 2.—Temperature 99·6°.

6th.—Feels no pain. Progressing favourably.

9th.—Patient left the hospital, friends refusing further operative proceedings, and amputation being the only thing advised.

Case 3.—Laryngeal Obstruction—Tracheotomy—Pulpy Disease of Knee—Sulphuric Acid—Recovery.

Charles C., aged four years and a quarter, was admitted December 21, 1874. He had been ill for a fortnight with difficult respiration.

Towards evening of the day of admission, respiration became much more difficult, and tracheotomy was performed by Mr. Colley. His knee was injured by his falling off some timber last July. He was then brought to Mr. Howse, who put the limb in splints.

April 1.—Knee now bent up a good deal, so splints are applied. Considerable swelling of right knee; patella raised, and outline of joint lost; it is not fluctuating, but is semi-solid in character. Some movement of joint, and not much pain. Kept in partially flexed condition.

17th.—Knee placed on back splint and bandaged.

25th.—Knee still bent up in same manner. Swelling has not yet gone down.

June 15.—Chloroform. Joint movable, and there is considerable grating. Esmarch's bandage applied. Free incisions on each side of patella into knee-joint; good deal of puriform fluid and pulpy material escaped and wiped away. Sequestrum of bone removed from tibia, and then strips of lint soaked with sulphuric acid and water of the strength of one part of the former to two of the latter passed into joint, being freely applied to every portion. Hæmorrhage from several vessels after removal of tourniquet; torsion and ligature. Put up on back splint with interruption; slightly flexed.

16th.—Temperature 99°; respirations 20; pulse 130. Crying with pain in knee on evening after operation; passed a restless night. To-day fairly comfortable.

17th.—Temperature 100·1°; pulse 144; face flushed; tongue clean; no pain.

19th.—Pulse 156; temperature 102·6°. Complains of having much pain.

20th.—Pain very bad at night; chloral given.

21st.—Temperature 100·8°. Chloroform given and dressing removed, when the two wounds presented a dried, charred appearance; the surrounding skin appeared healthy, and without any inflammation. It was then dressed with oiled lint.

23rd.—Temperature 99°. Last night crying very much, and apparently in great pain.

24th.—Last night crying very much, and very restless. Chloral given. Pulse 152; temperature 101°.

25th.—Last evening crying, and seemed in pain; bandage smelt badly. Bandage taken off. Wound presented the same appearance as described on the 21st. Syringed with carbolic lotion, and dressed as before. Temperature 101·2°.

26th.—Again restless last night, and crying very much. Temperature 100·4°; pulse 144.

24th.—Temperature 101·2°. Dressed, and temporary iron splint put on. The sloughs are separating. Articular cartilages lying bare in the wound. When sloughs were taken away a fairly clean surface with commencing granulation was visible. The splint was changed under chloroform.

28th.—Temperature 99°; pulse 126. Crying very much last night, and apparently in great pain. Dressings taken off, and hemlock poultices applied.

29th.—A great quantity of pus discharged on poultices; more poultices applied. Temperature 100°; pulse 144.

30th.—Temperature 99°; pulse 126. Poultices changed three times a day; great discharge of pus, which smells very badly.

July 5.—Passed a quiet night, and looks well. Temperature 99·2°; pulse 126.

6th.—Leg dressed this morning with carbolic oil; poulticing

discontinued. Wounds look clean and healthy, with free discharge. Patient well. Temperature and pulse normal.

15th.—Wound dressed as usual; shows a healthy granulating surface, with considerable discharge of pus. Temperature 99°; pulse 120.

September 23.—Wounds look well, and are healing very well.

29th.—Progressing favourably.

October 1.—Patient's leg out of splint.

13th.—Put up in splint again because he would not keep his leg quiet.

24th.—Patient going on very well. Leg in good position. No pain; healing well.

December 6.—Leg in good position; pretty firmly anchylosed. Superficial wounds not quite healed.

ST. GEORGE'S HOSPITAL.

(Under the care of Mr. POLLOCK.)

Case 1.—*Disease of Knee treated by Sulphurie Aeid.*

William C., aged twelve, admitted March 31, 1875.

History.—In June, 1874, the right knee began to swell, and he had sharp shooting pains in it. Does not recollect any injury. The knee was treated by the local application of iodine and by rest. Delicate-looking boy. Right knee slightly flexed, allowing of slight further flexion, but no extension. Joint uniformly enlarged; no distinct evidence of fluid in the joint, but a feeling as if the synovial membrane was thickened and pulpy. Local heat increased. Examined by the Physician, who reported:—"Slight consolidation at left apex, probably tubercular."

Operation, May 13.—Ether administered; Esmarch's bandage applied, and an incision made into the joint on either side, and an inch behind the patella. The joint was then wiped out by passing strips of dry lint through the joint from one side to the other, under the patella. A small quantity of purulent fluid escaped; the synovial membrane was much thickened and pulpy; small portions of soft membranous flakes coming away on the lint. The cartilages were thinned; bones not exposed. The joint was now stuffed with strips of lint soaked in sulphurie acid (strength 1 in 3). On the bandage being removed, the hæmorrhage was rather free, thirteen vessels requiring ligature. McIntyre's splint and Salter's swing applied. The operation was followed by very slight pain.

May 15.—Slight redness over patella.

17th.—General swelling around the joint, and increase of heat. Ice applied. The lint was slightly loosened by suppuration, and some portions were removed; these were blackened and rotten, but free from odour. Some portion of slough—apparently portion of synovial membrane—also came away.

19th.—Pain rather severe. Bowels not acted since operation. Ol ricini ℥ss. and enema communis.

20th.—Bowels open; temperature cool; skin cool; no pain.

22nd.—Wounds suppurating freely, and are covered with healthy granulations; syringed with solution of carbolic acid (1 in 40) daily. Appetite good; sleeps well; looks well. A piece of slough, apparently cartilage, came away to-day; another a few days later. Besides these, small portions of white slough constantly came away with the pus.

Continued steadily to improve, and on July 5 a light metal (tin) splint was substituted for McIntyre's, and in a few days patient was allowed to get up.

July 5.—Wounds healthy and healed, with exception of small sinus in each, from which healthy pus continued to exude. Sent to Convalescent Hospital at Wimbledon, and remained there until November 24.

December 6.—Mr. Pollock fully examined the knee, and after enlarging the wound slightly, found the patella on the outer side somewhat rough on its surface. The inner and upper surface of the internal condyle was also rough and exposed, but to no great extent. The greater portion of the joint was obliterated, and there did not appear to be any communication across the joint between the two external openings. The acid was freely applied, on lint, to these exposed surfaces of bone; and there has been no pain or constitutional disturbance.

Case 2.—*Abscess in Tibia, treated by Sulphurie Acid.*

Mary S., aged fifteen, was recovering from an attack of gastric fever three years and a half ago, when she noticed a swelling about a couple of inches below the knee, and to the inner side of the leg. The leg was painful, particularly at night; the swelling hard, and the pain of a throbbing character. She poulticed the leg, and then consulted a medical man, who told her it was "chronic rheumatism." He gave her some ointment, which she says did her no good. The swelling remained, the pain varying according to the weather, being most severe in cold and damp weather. Three weeks before her admission, which was on November 10, the swelling was inflamed and very painful in the night; she was then advised to come into the hospital.

On admission, there was a diffused swelling, about the size of a walnut, on the inner side of the tibia; the swelling was inflamed, and two days after her admission burst. On probing it no dead bone could be felt.

On November 24 the patient was placed under the influence of ether, and the bone was trephined, and a cavity found in the head of the tibia, from which the lining membrane was removed, and the cavity stuffed with sulphurie acid.

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Medical Times and Gazette.

SATURDAY, JANUARY 8, 1876.

FAT EMBOLISM.

In the present advanced condition of surgery, the treatment of simple fractures of the long bones is so unattended with anxiety, and so much a matter of mechanical routine, that the majority of practitioners are scarcely alive to the possibility of such injuries resulting in sudden death; and further, even those persons who in the course of their practice have been unfortunate enough to encounter such an accident, have probably been far from hitting on its right cause, and have set down to shock, *commotio cerebri*, or traumatic delirium, what was really due to quite another cause.

In the year 1862, the discovery was made by two German pathologists—Zenker and E. Wagner—that embolisms could be produced in the lungs by fat introduced into the venous circulation; and Wagner went so far as to express an *à priori* opinion that a sudden plugging of the capillaries of the lungs by fat globules might be able to give rise to hyperæmia and œdema of the lungs, and so to kill the patient. Later on, in 1866, F. Busch actually published a case in which death

had resulted from fat embolism, and proved by experimental considerations that in fractures of the long bones the fat which is contained in the crushed marrow can be taken up by the veins, be carried by them to the lungs, and there produce embolic changes sufficient to cause the patient's death. For some reason the subject of sudden death from fat embolism has, in spite of Dr. Busch's work (*Virchow's Archiv.*, Bd. 35, s. 321), attracted very little notice; and even writers like Verneuil, Bell, and Tillaux, who have specially treated of sudden death as the result of trifling injuries, have made no mention of the possibility of this singular accident.

Under these circumstances, the medical profession in Europe owe a considerable debt of gratitude to Professor Czerny, of Freiburg, for recently calling renewed attention to the clinical aspect and the importance of fat embolism, as well as for pointing out the considerations which should lead us to make the diagnosis of such a condition. His essay in the *Berliner Klinische Wochenschrift* (No. 44, p. 594; No. 45, p. 606), to which we are indebted for the materials of the present article, is a model in its way from its clearness, its comprehensiveness, and from the rich store of information which it contains within a comparatively small compass.

In the remarks which follow we have endeavoured to embody the chief points of interest in Professor Czerny's essay. We will commence with some details of a case which is described in the original at some length, in which the diagnosis of fat embolism was made by Professor Czerny, and confirmed at the autopsy. The patient was a strong, healthy man, aged thirty-two, who broke his right thigh transversely, a little below the middle, by falling from a scaffold. He was conscious when picked up, he had no vomiting, and was immediately carried to the hospital. Bladders of ice were applied to the thigh, which was placed on a Petit's boot until the next day, when the limb was permanently put up in splints. Neither immediately after the accident, nor on the following day, did the patient make the least complaint of pain at the seat of fracture, which was the more remarkable as his intelligence appeared to be in other respects perfectly normal. One point attracted Professor Czerny's attention when the limb was set, namely, that the patient's temperature, which was normal on the previous day, had risen to 39·3° Cent. (102·6° Fahr.); and he pointed out to the students the necessity of a cautious prognosis in the early days of severe injuries, because internal organs might be damaged without our being able to detect where the mischief lay. In the evening, although the patient made no complaint of pain, his pulse and respirations were somewhat rapid; his temperature was 39·7°. As he was restless and unable to sleep, one centigramme of morphia was given him at 9 p.m., and as this had no effect a similar dose was ordered a little before midnight. A few hours later the night-nurse was alarmed by the patient's loud and rattling breathing, and summoned the house-surgeons, who found the patient quite comatose, with cyanotic countenance, and breathing deeply and rapidly. The normal breath-sounds were inaudible on auscultation, owing to the presence of loud, bubbling râles; while the percussion-note was clear and somewhat tympanitic. The pulse was 100, full and strong; the pupils were much contracted, and insensible to light. There was no reaction produced by external stimuli. All attempts to revive the patient failed. His condition got steadily worse, and he died at 7.30 a.m. on the third day, about thirty-eight hours after the injury, the last symptoms observed being convulsive twitchings of the arms, profuse perspiration, and tracheal râles.

The next day, Professor Maier made a post-mortem examination of the body, and the following are the leading features of his report. The surface of the lungs had a marbled look, owing to the presence of a number of tiny bright-red spots and streaks, scattered over a reddish-white ground. Both lungs on section contained abundance of froth and serum, but were aërated throughout. In the brain there were a number of blood-points scattered through the white substance, and in some parts of the cortex there were a considerable number of small hæmorrhages. The pia mater was covered with a number of ecchymoses, varying in size from a hemp-seed to a threepenny-piece, and its vessels were highly injected. Examination of the fractured limb revealed no injury of the femoral artery and vein, but a considerable extravasation of blood around the fracture itself and between the adjacent muscles, and a large quantity of solidified fat-drops floated on it. The marrow of the bone for about one inch and a half from the line of fracture was firm and mixed with blood, while higher up it was soft and of a reddish-yellow colour. No other injury beside the fracture and an insignificant cut on the patient's chin could be discovered. Microscopical examination of small pieces of any part of the lungs showed that the smaller arteries and capillaries were tensely filled with clear fluid fat, which seemed to be distributed in almost equal abundance over the whole of both lungs. By boiling bits of the lung in ether the whole of the fat could be removed. In the brain, branching fat embolisms were detected in considerable number in those vessels which corresponded to the small ecchymoses. In the kidneys the vessels of the glomeruli contained abundance of fat, and in the liver there were fat-drops as large as a blood corpuscle in the intra-acinous vessels.

Putting aside the embolic infarctions in other organs, and taking account of those in the lungs above, there can be scarcely a doubt that the latter were sufficient to cause death. The interference with the pulmonary circulation gave rise, first to œdema, and then to carbonic-acid poisoning. We stated above that Professor Czerny had before the autopsy assigned fat embolism as the probable cause of his patient's death. Let us now see on what grounds he formed such a diagnosis. 1. There were no symptoms of any injury to internal organs; 2, shock could be excluded with considerable certainty, since there had been a distinct interval between the time of the accident and the onset of the serious complications which terminated in death, and during this interval the patient had been in the full possession of his faculties; 3, morphia-poisoning was not likely to be produced in an adult man by two centigrammes of morphia given in two doses four hours apart, and it was proved that the dispenser had made no mistake; 4, the leading symptoms which preceded death pointed to the lungs as the seat of mischief, and it was unlikely that the disturbance in these organs was due to the detachment of a venous thrombus, since this event seldom occurs before the eighth day, whereas fat embolism usually begins (according to Dr. Busch's experiments) in the first few hours after a bone has been fractured. It seems very easy and simple at first sight thus to enumerate the various elements on which a correct opinion was based by Professor Czerny, but a little reflection will convince any thinking person that to do so involves no ordinary amount of scientific knowledge.

After thus assigning the reasons for his diagnosis in his own special case, Professor Czerny passes on to consider the possibility of laying down such rules as would guide anyone to a similar diagnosis in a future case, and moreover would admit of this being done before the onset of dangerous symptoms. Appealing to the experimental method, he endeavoured to find out whether the injection of olive oil (? thirty grammes) or melted lard into the jugular vein of dogs produced a definite series of symptoms. It will be recollected that the patient whose case we have described had a temperature of 39·3° Cent. the morning after his accident, and one of 39·7° in the evening; and in a case which Lücke has reported the patient was also feverish. Was

the elevation of temperature here dependent on fat embolism in the lungs? If we can apply conclusions drawn from experiments on dogs to the human subject, we must answer this question in the negative. Professor Czerny found that, instead of rising, the temperature almost invariably fell after the injection one or two degrees Cent.; and if the animals died a few hours after the operation, there was an extreme depression of temperature immediately before death, as much as to 32·5°. It is difficult to understand the reason for such a depression after fat embolism in the lungs, because embolisms produced by chemically indifferent bodies, such as starch, are generally accompanied by a rise of temperature. Dr. Czerny is inclined to the belief that the embolisms which occur in the brain after the injection of fat (as post-mortem examination shows) produce such disturbances in its circulation as to interfere with the apparatus by which the distribution of animal heat is regulated. In dogs which have been narcotised with morphia, Professor Czerny has repeatedly observed depressions of temperature of more than two degrees Cent.; and this phenomenon he explains in a similar way.

A question which naturally suggests itself, when we find a high temperature occurring in the few cases of fat embolism which have been recorded, is, Does the elevated temperature favour the occurrence of fat embolism, since it is not produced by it? The simple answer to this is, that human fat melts between 15° and 25° Cent. (according to Kolbe), so that it is scarcely likely that a feverish elevation of one or two degrees could render its ingress into the bloodvessels more easy. Neither the pulse nor the respiration of animals in whom fat embolism has been produced showed any characteristic alterations. The pulse was either retarded or else irregular directly after the injection, returning to its normal state after several hours. The respiration was much accelerated, irregular, and having an expiratory rhythm. The effect of the embolism on the cerebral system varied much in different cases. Some animals were only restless, others had clonic and tonic convulsions; in some the urine and fæces were passed involuntarily, and then paralysis and coma followed. The variation in the nervous symptoms is explicable by the fat lodging in different parts of the brain in different animals. This *résumé* of the results obtained by artificially producing fat embolisms in animals will suffice to show that we do not gain from them much information which can be made available for diagnostic purposes. We must therefore, as Professor Czerny points out, still lay the greatest stress, in diagnosing that condition, on the causes which most frequently give rise to fat embolism, and these are, for clinical purposes, injuries of the bones and possibly, osteo-myelitis. The fluid fat which is set free from the crushed marrow in fractures of the long bones is forced into those veins which are torn across by the pressure either of the muscles or of the blood which is escaping from a ruptured artery, and so gives rise to embolism. "We must, therefore," says Professor Czerny, "remember the possibility of fat embolism when a patient with an injury of the bones becomes rapidly worse, without assignable cause, a day or two after his accident, and when the symptoms point to circulatory disturbances, first in the lungs, and secondly in the capillaries of certain parts of the general system. We can only, however, be absolutely sure that fat embolism has been the cause of death when we find post-mortem such extensive lesions, or such lesions of important organs (*e.g.*, the brain), as must have given rise to serious impairment of various functions." One more question suggests itself in connexion with embolism from fat: "If we can be sure that a patient's symptoms depend on such embolism, can we do anything to alleviate them?" Professor Czerny's answer is to the effect that he is as yet unable to suggest any plan of treatment which is likely to be beneficial to the patient.

An experimental injection of an emulsion of one part of fat and two parts (by volume) of a 2 per cent. solution of sodic carbonate, into the carotid artery of a dog, killed the animal even in such a small quantity as one cubic centimetre and a half. Nor was the injection of the alkaline solution into the jugular veins of animals, in whom severe dyspnœa had been previously induced by fat embolism, attended with more fortunate results. There was a slight apparent temporary improvement; nothing more. Ligature of any ruptured veins Dr. Czerny dismisses as an expedient which is, *per se*, unlikely to succeed if tried, and, further, which could only be tried too late, since the fat embolism probably only occurs in the first few hours after the bone has been fractured. In his own case, a copious bleeding, which it was hoped would relieve the patient's intense dyspnœa, had no apparent effect.

We must here leave the subject of fat embolism for the present, with the hope that observers in this country will be led by Professor Czerny's essay to look out for the symptoms of such an accident in suitable cases. It is probable that slighter degrees of fat embolism are not at all uncommon after fractures, although hitherto their effects have been either overlooked or misinterpreted. In investigating the whole question more thoroughly, the rising generation of surgeons has a wide field for activity.

SPECIAL DEBATES.

Special discussions at some of our leading metropolitan societies on subjects of great and widespread interest, but concerning which either there is known to be great difference of opinion, or with regard to which the judgment of the profession is suspended or is in a state of flux, have now become an established institution. Commenced by the Pathological Society, the custom spread to the Clinical, and then to the Obstetrical Societies, and now it seems probable that the debate in the Medical Society of London on Dr. Lauder Brunton's paper, "On the Physiological Action of Alcohol," will attain such importance and dimensions as to make it also worthy of being included among the "special debates." We have had "special debates" on "The Anatomical Relations of Pulmonary Phthisis to Tubercle of the Lung," on "Cancer," and on "The Germ Theory of Disease," at the Pathological Society; on "Pyæmia," and an abortive discussion on "Antiseptic Surgery," at the Clinical; and on "Puerperal Fever," at the Obstetrical Society. All were well worth listening to, and deserve careful study; admirable and able, and even very eloquent, speeches were delivered, setting forth in the most lucid and forcible manner the theories and the experience—but perhaps less the experience than the theories—of individual speakers; and we gained a very considerably widened insight into the divergence of opinions prevailing on the subjects spoken on. But did we gain anything more? Have we, as the result of such debates, any clearer or more settled knowledge of the true nature of any one of the diseases treated of? Have we acquired any greater confidence or certainty as regards the prevention or the treatment of any of them? Or can we say that any one of the disputed points as to their etiology, pathology, or management has been settled? We venture at least to question any gains of the kind, if we do not reply with an absolute negative. Yet such debates surely should, and, if rightly conducted, would be capable of producing much larger and more definite results than has as yet been the case, and of aiding positively in the advancement of both the science and art of medicine. Now, it seems more than probable that debates of this kind will become, at our chief societies, a regular annual custom, and one, on Syphilis, will shortly commence at the Pathological Society: it must, then, be well worth while to take some pains to so manage them that their results shall be of a more settled, definite, and enduring character; and we therefore take leave to insist

here on some of the rules that must necessarily be followed if that object is to be attained. First, the subject-matter of the debate must be clearly defined and limited; and next, all who take part in the discussion must be guardedly careful to confine themselves strictly to the limits laid down by the opener of the debate, and to treat the subject from a point of view according with the intentions and objects of the society at which the debate is held. If the subject to be discussed be too large or vaguely defined, or if the speakers wander beyond its proposed limits, or deal with it from a clinical point of view when its pathology is the intended object of the discussion, or *vice versâ*, then the debate so called will be little but an outpour of words "vast, and vague, and misty," and unprofitable. Some other rules for the guidance and management of a debate might perhaps also be laid down, but by a strict observance of those above mentioned we are sure that discussions would be productive of much greater, more definite, and more lasting benefit. In opening the forthcoming debate on Syphilis at the Pathological Society—to be commenced at the first meeting in February,—it is certain that Mr. Hutchinson will rigidly confine his speech to the limits he has laid down in the "Heads of Opening Remarks" (which we publish elsewhere in our columns), and that he will support all his statements by closely and clearly reasoned arguments, founded on careful and precise observations and facts. We shall have from him no mere impressions, no vague theories, and no hazy or imperfect observations. If other speakers will honestly and earnestly endeavour to follow the example he is sure to set them, we shall have a debate worthy of the eminent surgeon who is to open it, of the vast importance of the subject to be discussed, and of the position and reputation of the Pathological Society. But as the subject to be discussed is one of vast importance, so is it also one concerning which great differences of opinion are known to exist, and which may be discussed from various points of view; and unless the limits of the field of discussion are carefully adhered to, and the rules we have pointed to strictly observed, the debate will assuredly be of no greater or more enduring advantage than the debates which have previously taken place.

SPIDER-BITES.

In a curious and interesting paper published in the December number of a clever American contemporary, the *Virginia Medical Monthly*, Dr. G. W. Semple, of Hampton, Virginia, gives some cases where severe results have followed the bites of certain spiders. Such a thing as injury from spider-bites is hardly, if at all, known in this country, notwithstanding that in autumn many spiders of considerable size and unmistakable voracity are to be found in all parts of our hedgerows and gardens. The first case given by Dr. Semple is that of a gentleman who was bitten on the prepuce by a small black spider. At first there was a little redness and itching only, but in a very short time nausea and abdominal pain came on to an intolerable extent. Large doses of laudanum and spirits were given, and cups applied, before the arrival of Dr. Semple, whose description of the case on his arrival is as follows:—

"I saw the blood, thin and florid, fill the cups like water oozing through muslin. When the cups were removed, the blood, emptied into a basin, did not coagulate; and blood continued to ooze slightly from the surfaces to which the cups had been applied, until the next morning, though a solution of tannin was applied. I found the patient suffering extremely from the most violent præcordial pains and from apnœa, and also violent pain in the left arm, which was almost paralysed. His pulse 130 and very feeble, his skin cold as marble, and his countenance expressive of the deep anxiety he felt and expressed in words. The laudanum and whisky seemed to have produced no effect—the nausea and abdominal pains having subsided before they were administered. There was no pain, inflammation, or swelling where the bite was received. Even the itching of the part had subsided. I gave the patient every half-hour for several hours ʒ j. of aromatic spirits of ammonia, and as much whisky-and-water as he could be induced to take, and afterwards gave them every hour; also pediluvia of hot mustard and water, frequently repeated, until the next night.

"The symptoms continued unabated; indeed, the patient grew worse until half-past two o'clock, twenty-six hours after he was bitten, for his pulse had then become so frequent that it could not be counted, and so feeble that it could scarcely be felt. He then vomited black vomit copiously—a quart or more. Soon afterwards reaction set in, his pulse gradually regained force, and became less frequent, the pain subsided, and the respiration improved. At 8 p.m. the pulse had gained considerable force, and the patient slept until some minutes after twelve, when he awoke. His pulse was pretty full at ten minutes past one; his surface warm and perspirable, and he felt almost free of pain. After a short interval he again feel asleep, and slept quietly until morning, when he awoke—his respiration healthy, pulse 80, regular and with sufficient force, and entirely relieved of pain. He soon afterwards had two pretty copious evacuations from the bowels, similar to the black vomit he had vomited. After this he said he felt quite well, and in a few days went to work at his trade.

"In thirty-six hours from the time he was bitten he took three and a half quart bottles of the best rectified whisky—about three quarts—without showing the least symptom of intoxication."

Such results from what would seem to be a very trivial cause are really surprising, and would, were we not aware of the very small quantity of snake-venom necessary to inflict most serious injury, or even to cause death, in a way somewhat similar to this, be hardly credible.

The second case reported is that of a soldier in the civil war, when something of the same kind happened, and when again copious stimulation was required to bring the man round. Perhaps, in a certain way, the fourth case given is the most interesting. Here the patient was a woman with a slight tinge of black blood, and when seen she was in a most prostrate condition. Dr. Semple adopted Dr. Halford's plan of injecting ammonia into a vein directly. The relief was sudden and most marked, and illustrates the alliance between the effects of the bites of snakes and of the spiders here referred to. Unfortunately for us, in one way Dr. Semple does not seem an enthusiast in science, so we are left to conjecture what the name and nature of the spiders are. Nevertheless, as already said, the cases are exceedingly interesting, were it only for the alliance exhibited between the effects of two different kinds of animal poisons; and Dr. Halford can hardly fail to be gratified by such a demonstration that his plan of treatment is good for something more than the bites of Australian snakes.

THE WEEK.

TOPICS OF THE DAY.

The death-rate in the town of Blackburn for the last four weeks has been about 33 per 1000. It is publicly stated that the chief causes of death amongst the young children are neglect, bad food, insufficient clothing, and the use of narcotics. Amongst the adult classes organic diseases are said to prevail; many of them are chest complaints, which the factory workers attribute to working in over-heated atmospheres, and the adoption of what is known as the steaming process. Cases of typhoid fever are also numerous. The Medical Officer to the Corporation is said to have expressed an opinion that one of the greatest nuisances in Blackburn is the bed of the River

Blakewater, which, if proper steps were taken, might be purified. If the foregoing description, which is compiled from local information, be not exaggerated, the state of this town might very well engage the attention of the sanitary authorities at head-quarters.

The Kent Society for the Improved Lodging of Hop-pickers have prepared (certainly not before they were wanted) some by-laws, which have been approved by the Local Government Board, and by it recommended to the various sanitary authorities for adoption. These by-laws make provision for a certain amount of space to be allowed in hopper-houses for each person; also for internal divisions, cooking-houses, and a wholesome supply of water. Everyone acquainted with a hop-growing county is thoroughly aware of the enormous amount of dirt and disease suddenly imported into its midst at the time of gathering the crop. The men and women employed are of the very lowest class, without respect for either decency or cleanliness, and more than once have jeopardised the health of a whole locality by their utter disregard of the commonest sanitary precautions. It is to be hoped, therefore, that these by-laws, which were recently discussed at a conference of hop-planters and delegates from several of the sanitary authorities of Kent, will bring about an improved state of things in this direction for the future.

The opponents of vaccination would appear to have been discouraged by the result of their legitimate endeavours to oppose the law, and are now having recourse to circulars, which depend for their influence on vague threats and unwholesome insinuations. What could any decent person think of the following?—"Grief for early deaths. Desolation. Vaccination—the Blood Poisoner. Welcome Early Death! Welcome Blood Poisoning!! Welcome Fever!!! Welcome Consumption!!!! Welcome Scrofula!!!! Welcome Syphilis!!!!! Welcome Insanity!!!!!! England is now a land of mourning. Pass this card to your friends." The foregoing has been communicated to the *Times* by a gentleman who had received it, presumably in consequence of the announcement in that journal of the birth of his child. Surely the Post-office authorities might be authorised to stop the delivery of all post-cards inciting to a violation of the law. If the anti-vaccinators of London can show any legitimate grounds for their opposition, they should do so openly, and in a straightforward manner. They only display the weakness of their cause by having recourse to the annoyance of this anonymous post-card persecution.

We briefly alluded last week to the number of accidents which had taken place in London on Christmas and the following days, many of them presumably attributable to the dangerous practice of strewing orange-peel broadcast over the pavement. We have now to notice a long list of casualties which occurred in Glasgow on the recent celebration of New Year's-day, the cause in every instance being referred without the slightest disguise to drink. Three men the worse for liquor fell into the harbour and were drowned; and two labourers, who were also intoxicated, stumbled into the Forth and Clyde Canal, but fortunately were rescued. A child, six years of age, the daughter of a labourer, died from an overdose of whisky; and an old man, a mason by trade, met his death from a similar cause. An Irishman and a young woman sustained scalp-wounds by falling downstairs; an intoxicated labourer fell from the window of his dwelling and had his skull fractured; and a woman had her left leg fractured, and a man received concussion of the brain, from a tramway accident. The perusal of such a list of victims to inordinate drinking is almost enough to insure conversion to Sir Wilfrid Lawson's peculiar theories.

In the various asylums, hospitals, and licensed houses throughout the kingdom there were, in 1873-74, 853 criminal lunatics under confinement. Of these, 559 were at Broadmoor, 197 at county asylums, and 61 at provincial licensed houses. Under the Act of 30 Vic. cap. 12, pursuant to which criminal lunatics whose term of punishment has expired are not afterwards to be treated as criminals, but are to be considered as pauper lunatics, 86 lunatics caused during the year to be reckoned as criminals, making, with the numbers for the seven previous years, 1362 persons to whose cases the provisions of the Act have applied up to September 29, 1874. The number of criminal lunatics under detention at the commencement of the year was 679; 169 were committed during the year, and 5 were received from other asylums. Of these, 86 ceased to be criminals, as before shown, 34 died, and 3 escaped, 17 became sane and were discharged or removed, 15 were sent for trial or punishment, and 7 were made over to other asylums; so that 691 remained under detention at the end of the year. The total number under detention in 1874 was greater by 16 than in 1873. The average cost per head in the State asylum at Broadmoor amounted to £57 18s. 10d., against £61 16s. 10d in 1873. For the forty-one county asylums in which criminal lunatics were under detention, the average cost per head was £26 14s. 6d.; and for seven city and borough asylums the average was £33 6s. In licensed houses a few cases remained at high rates, paid from private funds; and at Fisherton House, where, with one exception, the expenses are paid from parish rates, the average cost per head was £42.

An excellent arrangement, already discussed in our columns, has just been perfected in Paris, with the object of meeting one of the great requirements of the night in that city—namely, "night medical attendance." At every police-office, doctors who are willing to get up at night will inscribe their names. The public may see the list there all night, and choose any name they please. A policeman will immediately proceed to the doctor's house, return with him, and hand him a ten-franc fee. This fee will be reimbursed to the Municipality by those who are able to afford it, but those who cannot pay will receive medical succour gratis. Some such arrangement might with great advantage be introduced into our metropolis, where deaths too often supervene owing to the difficulty and delay that occur when a doctor is suddenly wanted at night. If telegraphic communication could be established between the police-stations and the houses of such doctors as would be willing to attend all cases for an established fee, medical attendance, where required, would be immediately forthcoming, and doubtless in many cases life might be saved.

A gentleman, Dr. George Bird, who has just returned from a voyage to the first cataract of the Nile, has just made public the fact that Messrs. Cook and Son (who have been entrusted by the Khedive with the complete control of the Nile steamers) will, during the present month, establish a well-appointed sanatorium just above the first cataract. The situation chosen is said to be one of the most beautiful to be found anywhere on the Nile; it is on the right bank of the river, opposite the island of Philæ, just on the edge of the desert, and close to a picturesque grove of palm-trees. A steamer runs fortnightly from Cairo to the second cataract, and invalids may start thence for the sanatorium in the middle of November It is even contemplated to organise a weekly service of steamers and resident medical aid is promised.

During the Christmas some of the City companies have, with their accustomed liberality, made some handsome donations to medical charities. Thus the Armourers and Braziers' Company have given five guineas each to the Royal Free Hospital and the Hospital for Sick Children; three guineas each to the Provident Surgical Appliance Society and the City of London Truss Society; and ten guineas each to the London Fever Hospital, the Metropolitan Free Hospital, the

Great Northern Hospital, and the City and East London Dispensary; besides numerous grants to non-medical charities. The Skinners' Company have presented ten guineas to the Farringdon General Dispensary and Lying-in-Charity. The Grocers' Company have presented £50 to the Poplar Hospital for Accidents; and the same Hospital has received twenty guineas from the Mercers' Company, and a like sum from the Drapers' Company.

The office of the Local Government Board is expected to be removed this week from Gwydyr House, Whitehall, to the appropriate premises apportioned to the department in the new Government buildings in Charles-street, Westminster.

Very sensibly, as we think everyone will allow, it has been agreed that the recent inquest held at Grays shall be accepted as the inquiry respecting any other bodies which may be recovered of boys drowned during the burning of the *Goliath*, and that the coroner shall return a verdict of accidental death in the case of each body recognised.

The Earl of Powis has given the liberal donation of £100 towards the building fund of the Shrewsbury Eye and Ear Hospital.

The *Transactions* of the Royal Academy of Sciences of Berlin for 1875 contain an important essay of Professor Virchow's, "On certain Characteristics of the Cranium in the Lower Races of Mankind." The essay has been published in a separate form, and is sure to attract the attention of all those interested in anthropology.

ENTERTAINMENT AT HANWELL LUNATIC ASYLUM.

On New Year's-eve we had the pleasure of being present at the annual ball of the patients of the Hanwell Luuatic Asylum. Before entering the ball-room, we embraced the opportunity of inspecting the wards on the male side of the establishmeut, and were much struck with the great pains that have been taken to make them as light and cheerful as possible. Recently, the walls of the corridors and the walls and ceilings of the wards have been either painted, papered, or stencilled, giving them a very cheerful appearance. The painting and stencilling have all been executed in a highly artistic manner by the patients themselves, several of whom are exceedingly clever artists, and take great delight in carrying out the work of ornamentation. In addition to the painting and stencilling, the wards were specially decorated with evergreens, devices, and artificial flowers, all of which were, under the superintendence of the atteudants, arranged by the patients themselves. At the time of our visit the wards contained only those patients whom, for various reasons, it would have beeu unsafe to trust in the ball-room. Most of these, conscious that the occasion was an unusual one, were enjoying themselves in various ways, such as playing at cards, draughts, and bagatelle. The Committee of Visitors have most wisely purchased a number of pianos for the use of the patients, and as many of them play exceedingly well, these instruments are the greatest boon to them. In nearly every ward one of the patients was playing on the piano, and a group of patients were listening to, and evidently enjoying, the music. In the epileptic ward there were about seventy patients, all of whom were in bed, and most of them asleep, at the time of our visit. Until recently, the epileptic patients were scattered about in the various wards; now they are all located in one ward under the care of a special staff of the most trustworthy attendants. Differences of opinion prevail as to whether it is better to place all the epileptic patients together or not, but the Hauwell experience is in favour of grouping. By this system one attendant is sufficient to take entire charge of the patients after ten o'clock at night, and it rarely happens that he requires extra assistance, although he can, of course, summon help, by means of electric bells, at any time if needed. The night attendant states that the average number of fits during a night is eight. One word as to the dress of the attendants. A contemporary has recently entered a protest against the dress of the attendants, on the ground that it gives them the appearance of prison-warders, and that this operates prejudicially on the minds of the patients. This may, to some extent, be true, but it is found that some kind of uniform dress is necessary, in order that the attendants may be distinguished, even at some distance, from the patients; and that now in use is certainly not particularly objectionable either in colour, cut, or trimming. To return to the festivities, for it is not our intention to enter into a detailed description of the establishment or its arrangements. Dancing commenced at six o'clock in the ball-room, which was brilliantly lighted and gaily decorated for the occasion. It was a very interesting sight to see some 400 or 500 persons of "unsound mind" all congregated together and enjoying the dancing either as spectators or executants. The accuracy with which the various dances were gone through was surprising, and save for a slight occasional outburst of excitement on the part of one of the patients, one would scarcely have believed that a large proportion of the company were confirmed lunatics. The proficiency of the patients in dancing may be explained by the fact that certain of them are allowed to practise in the ball-room every Monday evening during the winter months. At eight o'clock, dancing was suspended for refreshments, the females being regaled with spiced ale, cake, and other light refreshments; whilst the males sat down to a hot meat supper which had been laid in the dining-hall. Supper ended, each male patient was provided with a pipe of tobacco and an extra mug of ale, which they seemed thoroughly to enjoy. A few comic songs were then sung by some of the patients, after which dancing was resumed, and kept up until nearly eleven o'clock. It speaks volumes for the efficiency of the medical supervision and the care and watchfulness of the attendants that all the proceedings of the day and evening passed off without the slightest unpleasant incident: and the Committee of Visitors are to be congratulated that their liberality in providing such entertainments is so highly appreciated by the poor individuals committed to their care. There can be no doubt that entertainments of this kind are productive of benefit to the patients themselves, and should be occasional events in the history of every lunatic asylum.

NOTEWORTHY CONDUCT OF A PARISH MIDWIFE.

If the evidence which was given at an inquest held at the Coroner's Court, Islingtou, last week, is worthy of credence, the couduct of Mrs. Crofts, midwife for the parish, certainly merits the attention of the Islington Board of Guardians. On the Thursday before Christmas-day, a young woman, who gave the name of Jane Simmonds, called on Mrs. Crofts, who, it is said, is in the habit of receiving females into her house to be privately confined at a fee of £10 for the month, and engaged apartments for a month, as she was expecting to be confined. The young woman was accompanied by a man who paid the £10. Mrs. Crofts states that they gave no address, but she believed that Simmonds was "iu a situation at the West-end." On the Friday night, Simmonds was delivered of a female child, and shortly after she left the house. Mrs. Crofts was to take charge of the child, and put it out to nurse when old enough. The next day Mrs. Crofts sent for Mr. H. F. Burnes, L.S.A., of Benwell-road, Holloway, who expressed surprise that he should have been sent for, as the child appeared to be in perfect health. On the third day, however, the child died, and Mrs. Crofts applied for a certificate of death, which Mr. Burnes refused to give. It is said that he was then offered the inquest fees if he would give a certificate, as this would save the bother of an inquest. This, of course, he refused. On making a

post-mortem examination he could find no trace of disease, but the appearances pointed to suffocation as the cause of death. Mr. Burnes' opinion as to the cause of death having been confirmed by another medical man, the jury returned a verdict, "That death was caused by suffocation, but from what means there was no evidence to show."

The circumstances attending this case seem sufficiently suspicious to warrant some inquiry by the police; and, at all events, the midwife's part in the transaction can hardly be overlooked by her employers, the Islington Board of Guardians.

THE WATER-SUPPLY OF THE METROPOLIS.

In a letter to the *Times*, Lord Camperdown opportunely directs public attention to the water-supply of the metropolis, which, as has been repeatedly shown in these columns, is not derived from particularly pure sources. Seven out of the eight private water companies which supply the metropolis with water derive that supply from the Rivers Thames and Lea. Of the condition of these rivers, the Commissioners appointed in 1868 to inquire into the condition of polluted rivers in England, and into the question of the water-supply of the country, in their sixth and final report, which has just been published, state as follows:—"The Thames above the intake of the respective water companies receives the sewage from a large number of towns and other inhabited places, the washings of a large area of cultivated land, and the filthy discharges from many industrial processes and manufactures. The river is used for bathing, for the washing of sheep and cattle and of dirty linen, and the putrid carcases of animals float upon its surface. It is the common waterway for a large amount of polluting matter, much of which is at times dangerous to the health of persons who use even the filtered water for dietetic purposes. In time of flood a large proportion both of the suspended and dissolved filth is conveyed down to the intake of the metropolitan water companies, and in ordinary weather a considerable proportion of the soluble organic matter of sewage discharged into the river and its tributaries likewise makes its way down to the works of the water companies, and is still present in the water distributed by them in London. There is no hope of this disgusting state of the river being so far remedied as to prevent the admixture of animal and other offensive matters with the filtered Thames water as delivered in the metropolis. . . . . The pollution of the Lea above the intake of the water companies is similar in character to that of the Thames, but considerably less intense." (Pages 428 and 429 of Reports.) Such being the actual condition of our sources of water-supply for the metropolis, those concerned ought to consider, without delay, whether it is not possible to obtain water from some purer source. Lord Camperdown suggests that the water-supply of the metropolis should at once be taken out of the hands of the private companies, and placed under the control of some central authority, whose first object would be the provision of a new supply of pure and wholesome water, instead of striving to insure large dividends for expectant shareholders.

THE LATE MR. JAMES HINTON, M.R.C.S.

We regret to record the death of Mr. James Hinton, which occurred at the Island of St. Michaels (Azores), on December 16 last. In the early part of his career, Mr. Hinton was engaged in general practice; but a few years before the death of the late Mr. Toynbee, under this gentleman's auspices he devoted his attention to aural surgery, which specialty he afterwards most successfully practised until his retirement in the early part of 1874. As Aural Surgeon to Guy's Hospital, he contributed several valuable papers to the *Reports*, and, besides some communications published in the *Medico-Chirurgical Transactions*, was the author of the article in "Holmes' System of Surgery" on Diseases of the Ear. This was justly considered the best account of the subject that had been written by an English surgeon, and from the time of its publication he became the chief authority in this country on all matters connected with the ear. The last issue from his pen appeared in 1874, in the form of a small book, entitled, "Questions in Aural Surgery." Although Mr. Hinton's success in his profession was very considerable, it was not by such success that he would have wished to be judged. His great ambition was to be considered a philosopher and social reformer, and he was earnest in his endeavours to imbue others with the views which he promulgated, not only in his writings, but in his daily intercourse with his friends and acquaintances. What these views were may be gathered from his published works, such as "Man and his Dwelling-Place," "Life in Nature," and "The Mystery of Pain." He was possessed of very great facility in writing, but, owing to the extremely unpractical nature of his teaching, it is quite open to question whether what he has written is destined to exercise much lasting influence, excepting in the circle of his immediate followers and admirers. How unpractical and imaginative he occasionally could be may be seen in his last communication to the Metaphysical Society, of which he was a member, "On the Relations between the Organic and Inorganic Worlds."

HEADS OF MR. HUTCHINSON'S OPENING REMARKS ON SYPHILIS.

At the first meeting of the Pathological Society, in February, Mr. Hutchinson will open a debate on Syphilis, and he has supplied the following abstract of the topics he intends to deal with:—

"After adverting briefly to the doctrines at present received as to the nature of syphilis, and also to certain important sources of error in the attempt to study its course, the following topics, amongst others, will be introduced for discussion:—At what period in its course does syphilis cease to be a blood disease? The peculiarities of the inflammatory process when caused by syphilis: its tendency (1) to solid growth, and (2) to ulceration and phagedæna. The importance of a better knowledge of the internal pathology of the secondary stage, with a view to the better comprehension of the relationships which exist between the secondary and tertiary phenomena. (It will be suggested that visceral lesions, gummata, etc., are more common in the secondary stage than is supposed.) The remarkable differences which exist between acquired and inherited syphilis:—*a*. The great rarity of disease affecting the nervous centres in inherited syphilis. *b*. The rarity of tertiary gummata in inherited syphilis. *c*. The frequency of symmetrical forms of disease in the tertiary stage of inherited syphilis. The absence of any real relationship between scrofula and syphilis; and the specificity of all the phenomena which belong to the latter, at whatever stage observed."

PATHOLOGICAL SOCIETY OF LONDON.

The following is the list of officers and Council proposed for election for the year 1876:—*President:* George D. Pollock *Vice-Presidents:* Wilson Fox, M.D., F.R.S.; Charles John Hare, M.D.; Sir William Jenner, Bart., M.D., K.C.B., D.C.L., F.R.S.; Walter Moxon, M.D.; Campbell De Morgan, F.R.S.; John Whitaker Hulke, F.R.S.; Henry Lee; Thomas Spencer Wells. *Treasurer:* Charles Murchison, M.D., F.R.S. *Hon. Secretaries:* T. Henry Green, M.D.; William Warwick Wagstaffe. *Council:* William Cayley, M.D.; Henry H. Crucknell, M.B.; Robert Farquharson, M.D.; James Fredk. Goodhart, M.D.; Harry Leach; Robert Liveing, M.D.; Philip Henry Pye Smith, M.D.; Henry G. Sutton, M.B.; John Charles Thorowgood, M.D.; Charles Theodore Williams, M.D.: Henry Arnott; William Morrant Baker; Marcus Beck; Edward Bellamy; Henry Trentham Butlin; Thomas Carr Jackson; Henry Walter Kiallmark; F. Howard Marsh; Henry Power; William Spencer Watson.

THE REPORT ON THE METROPOLITAN WATER COMPANIES FOR NOVEMBER LAST.

During the month of November, the state of the water in the Thames at Hampton, Molesey, and Sunbury was extremely bad, owing to the river being in a state of flood from the heavy rains. In consequence, the water companies drawing their supplies from this source had to take in turbid and much discoloured water, which it was almost impossible to filter effectually. On October 26 the water rose two inches higher than on any previously recorded occasion of flood; but on November 18 it rose fifteen inches higher still, and was much polluted by the effluent waters bringing down from the land large quantities of marl and clay, as well as decayed vegetation and other impurities, which stained the water and rendered it exceedingly turbid. The impurities in suspension were to a great extent removed by filtration; but the matter in solution passed through the filter-beds, causing the filtered water to be stained with a brown colour. By previous subsidence for several days effectual filtration is greatly facilitated. Of the companies drawing their supplies from the Thames, the West Middlesex and the Lambeth are the only two that have at present sufficient storage capacity, or impounding reservoirs, to avoid taking in water when floods prevail. The water supplied by the West Middlesex Company during the month was clear and efficiently filtered; the excellent quality of the water supplied by this Company is mainly attributable to its having been taken in at times when the river was at its best, and allowed to subside previous to being filtered. The Lambeth Works being new, are not yet in such good working order as the West Middlesex, and consequently the water supplied by them is indifferent in quality. The water supplied during the month by the other companies was satisfactory, and several of them are busily employed in the construction of works for improving the condition of the water before it is supplied for the use of the public.

MEDICAL SOCIETY OF LONDON.

At the ordinary meeting of the Medical Society, on Monday, December 20, Dr. T. Lauder Brunton read a paper "On the Physiological Action of Alcohol," of which the following is an abstract:—

"Alcohol, in small quantities, increases the secretion of gastric juice and the movements of the stomach, and thus aids digestion. Although unnecessary in health, it is useful in exhaustion and debility. It increases the force and frequency of the pulse, by acting reflexly through the nerves of the stomach. In large doses it impairs digestion by precipitating pepsine and over-irritating the stomach. It may produce death reflexly by shock. After absorption into the blood, it lessens the oxidising power of the red blood-corpuscles. This property renders it useful in reducing temperature. When constantly or very frequently present in the blood, it causes accumulation of fat, and fatty degeneration of organs. It undergoes combustion in the body, maintains or increases the body-weight, and prolongs life on an insufficient diet: it is therefore entitled to be reckoned as a food. If large doses are taken, part of it is excreted unchanged. It dilates the blood-vessels, increases the force and frequency of the heart, imparts a feeling of comfort, and facilitates bodily and mental labour. It does not give additional strength, but merely enables a man to draw upon his reserve energy: it may thus give assistance in a single effort, but not in prolonged exertions. The same is the case with the heart; but in disease, alcohol frequently slows instead of quickening this organ, and thus economises instead of expending its reserve energy. By dilating the vessels of the skin, alcohol warms the surface at the expense of the internal organs: it is thus injurious when taken during exposure to cold, but beneficial when taken after the exposure is over, as it tends to prevent congestion of internal organs. The symptoms of intoxication are due to paralysis of the nervous system; the cerebrum and cerebellum being first affected, then the cord, and lastly the medulla oblongata. The apparent immunity which drunken men enjoy from the usual effects of serious accidents, is due to paralysis of the nervous mechanism, through which shock would be produced in a sober condition."

The discussion which followed was sustained by Drs. Broadbent, Sansom, Symes Thompson, and other members of the Society, and was adjourned till the meeting of January 10. The debate will then be re-opened by Dr. Milner Fothergill, and it is expected that Dr. B. W. Richardson will also speak.

ANTI-VACCINATION IN PRUSSIA.

A vigorous agitation has been taking place in Prussia among certain parties, with a view to obtain the repeal of the compulsory Vaccination Act, which came into force about eighteen months ago. The anti-vaccinationists have even succeeded in bringing a petition before the German Parliament, signed by several thousand persons, "but unaccompanied," says the *Berliner Klinische Wochenschrift*, "by any arguments deserving of scientific notice, and unsupported by any authorities whose opinion carries any weight." This petition appears, however, not to have been without its effect on the minds of some of the members of the German Parliament, just as in this country similar agitations excite a certain echo in our own House of Commons. With a view, therefore, to counteract any mischievous influence which might be exerted on the public at large by the adhesion of even a respectable minority of the members to the principles advocated by the petition, the Berlin Medical Society, on November 24, unanimously passed the following resolution:—"That this Society, after considering all the objections which have been made to vaccination up to the present time, still considers that a real advance has been made in public hygiene by enforcing compulsory vaccination and revaccination, and it would deplore any event which would again rob the German empire of the benefits which the Vacciuation Act of April 8, 1874, conferred upon it." We recommend this resolution to the consideration of the anti-vaccinationists of Great Britain.

AN EPILEPTIC ZONE IN MAN.

Some of our readers may perhaps remember the guinea-pigs which Dr. Brown-Séquard a few years back used to send into convulsions by first dividing the sciatic nerve, and then irritating a certain part of the animal's face. A German Surgeon, Dr. Rinke (*Berl. Klin. Woch.*, No. 37), has lately succeeded in discovering a similar epileptic zone in the human subject, and in producing an attack of convulsions at will. The subject of the experiment was a man, aged twenty, who was attacked with epilepsy for the first time while recovering from typhoid fever. A mustard plaster as large as the palm of the hand was applied in the angle betweeu the levator anguli scapulæ and sterno-mastoid muscles. In ten minutes convulsive twitchings began in the muscles of the shoulder, and quickly spread to the whole body, while at the same time unconsciousness and all the other symptoms of a complete epileptic fit supervened. A second application of the plaster again excited a convulsive attack. Thirteen days later—that is, eight days after the last natural fit (these fits, which previously had recurred every evening, having yielded to a course of bromide of potassium),—an imperfect attack was produced by the same method; and later still, after there had not been a complete natural fit for *three* months, a fourth attack was excited in a similar way.

CHEAP INQUESTS.

The vexed question of the necessity for post-mortem examinations in cases of sudden death still continues to interrupt the harmonious conduct of business in the court of the Coroner for Central Middlesex, although, as a rule, we believe the juries manage to arrive at a verdict more or less in accordance with the probabilities of the particular case under examination. The desire for cheaply managed inquests may possibly be a laudable one, and one that should be encouraged, but in many cases an

inquest without a post-mortem examination has been made is little better than a farce. A case in point occurred last week at the Coroner's Court, Holloway. The deceased, an infant two months old, died suddenly. It was said to have been a sickly child, but had not been attended to by a medical man. Dr. Slater, the medical witness in the case, said that, as no post-mortem examination had been ordered, he could not tell the cause of death, and he thought his attendance at the court under such circumstances was a farce. The jury appeared to coincide with Dr. Slater, as they wished to know whether he could make a post-mortem examination whilst they waited. This, however, he was unable to do, and the jury, with no positive evidence whatever to guide them, returned a verdict of "Death from natural causes."

DELAY IN HOLDING INQUESTS.

A CORRESPONDENT of one of the Plymouth papers complains of delay in the holding of inquests in Cornwall, and relates an instance of a corpse having been kept for two days in a room where a little boy was ill in bed. This is bad enough, surely; but what shall be said when a corpse is kept for more than two weeks in a crowded dwelling before an inquest is held! Such an instance occurred last week in the East-end of London. The jury naturally complained of the delay, it being very unpleasant for them to view a body in an advanced state of decomposition. Such long delays also prevent the making of satisfactory post-mortem examinations; besides which, public health is endangered by corpses remaining so long unburied. In this case the coroner explained that the delay in holding the inquest was due to pressure of work. We are sorry that such should be the case, as public servants should not be overworked; and Mr. Humphry or his deputy should see to it at once that they receive some assistance, in order to prevent the repetition of such dangerous scandals.

THE Sanz Prize in Medicine has just been awarded by the Spanish Medico-Chirurgical Academy to Dr. Richard Ballota Taylor, of Santillana, for his work, "On the Influence of Altitude and Latitude on the Development of Diseases of the Chest." This is the first time a prize has been bestowed upon an Englishman by the Spanish Academy.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN DECEMBER.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	21·37	0·060	0·128	0·002	16·5	4·2
West Middlesex	20·23	0·031	0·147	0·000	16·1	3·8
Southwark & Vauxhall	21·53	0·078	0·149	0·002	16·8	4·2
Chelsea	21·03	0·052	0·136	0·002	16·5	3·8
Lambeth	21·37	0·081	0·115	0·002	16·5	4·2
Other Companies.						
Kent	28·86	0·006	0·345	0·000	21·3	6·4
New River	21·47	0·049	0·131	0·001	16·4	3·8
East London	23·13	0·052	0·181	0·002	17·0	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was very slightly turbid—namely, in those of the Grand Junction, the Southwark and Vauxhall, the Chelsea, and the Lambeth Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 109,998,771 gallons; and the number of houses supplied was 521,336. This is at the rate of 31·9 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 28·2 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

FROM ABROAD.

AWARD OF THE PRIZES AT THE ACADÉMIE DES SCIENCES. At the annual public meeting of the Académie des Sciences, held on December 27 (reported in *L'Institut*, Dec. 29), among the prizes, which were announced by M. Frény, the president, were the following:—1. The Grand Prize in the Physical Sciences, 3000 fr. in value—subject, the "Changes which take place in the Internal Organs of Insects during their Complete Metamorphosis,"—is decreed to M. Künckel, assistant-naturalist at the Muséum, for his very extensive and complete memoir on the organisation and development of the genus volucella of the Dipteræ. 2. The Lacaze Prize, 10,000 fr. in value, is given to Prof. Mascart, of the Collége de France, for his works on the solar spectrum, the dispersion of gases, the influence exerted by the motion of the earth on optical phenomena, and on the rapidity of light. 3. The Montyon Prize for Statistics, 543 fr. in value, is adjudged to M. Borius, for his "Researches on the Climate of Senegal," a work that is accompanied by meteorological tables. "Honourable mentions" are also accorded to M. Maher, for his "Medical Statistics of Rochefort"; to M. Ricoux, for his "Contribution to the Study of the Acclimatisation of the French in Algeria"; to M. Lecadre, for his "Le Havre in 1873 in its Statistical and Medical Relations"; and to M. Tremeau de Rochebrune, for his "Medical Statistics of the Ambulances formed at Angoulême during the War 1870-71." 4. The Jecker Prize, of 5000 fr., is given to M. Edouard Grimaux, as a recompense for his numerous chemical works, and especially in synthetic chemistry, which has led to his producing numerous bodies artificially, such as essential oils like the oil of bitter almonds, and azotised bodies belonging to animal chemistry. 5. The Lacaze Prize in Chemistry, 10,000 fr. in value, is given to Prof. Favre, Dean of the Faculté des Sciences of Marseilles, for his great work on the transformation and equivalence of chemical, physical, and mechanical forces. 6. The Barbier Prize, 2000 fr. in value, is adjudged to M. Rigaud, Professor of Clinical Surgery in the Faculty of Medicine of Nancy, for his work on the "Curative Treatment of Varicose Dilatations of the Superficial Veins of the Lower Extremities, and on Varicocele." Two "encouragements" of 1500 fr. each are accorded to MM. Robin and Hardy for their works on Jaborandi. 7. The Desmazières Prize of 1600 fr. has been divided between M. Fournier for his two memoirs on the ferns of Mexico and New Caledonia, and M. Bescherelle for two memoirs on the mosses of the same countries. 8. The Great Prize in Medicine and Surgery, value 5000 fr.—subject, "The Therapetical Applications of Electricity,"—is decreed to M. Onimus for the application which he has made of electricity to therapeutics, and for his extensive studies on the physiological effects of electricity. 9. The Montyon Prizes in Medicine and Surgery, 2500 fr. each: Three of these have been accorded—one to M. Alphonse Guérin, for his mode of employing wadding bandages as a dressing of wounds; one to M. Legouest, for his "Traité de Chirurgie Militaire"; and one to M. Magitot, for his "Traité des Anomalies du Système Dentaire chez les Mammifères." "Encouragements, with 1500 fr.," are awarded to M. Berrier-Fontaine, for his observations on the arterial system, which establish that that system—as also the venous system, for that matter—does not represent a cone, as it is generally said to do, but a cylinder; to M. Pauly, for his work "Climats et Endemics: esquisses de Climatologie comparée"; and to M. Veypière, for his "Recherches Cliniques et Expérimentales sur l'Hémi-Anæsthésie de Cause Cérébrale." 10. The Godard Prize of 2000 fr. is decreed to M. Hergott, Clinical Assistant in the Faculty of Medicine of Nancy, for his work on ectopia of the bladder in the female. In this he has studied this curious malformation, consisting in the absence—as a result of non-development—of the abdominal parietes, the anterior wall of the bladder, and the symphisis pubis. He

demonstrates by facts, hitherto unknown, that women the subjects of this ectopia may become pregnant, but that they are very liable to prolapsus uteri after delivery. 11. The Serres Prize for the best work on General Embryology, applied as far as possible to physiology and medicine, is not awarded, but "recompenses" of 3000 fr. are accorded to M. Campana, for his "Recherches sur l'Anatomie et la Physiologie des Appareils Respiratoires, Digestifs, et des Séreuses du Oiseaux"; and to M. Georges Pouchet, for a manuscript memoir on the development of the skeleton, and especially the cephalic skeleton, of osseous fishes, compared with that of some other vertebrates. 12. The Chaussier Prize of 10,000 fr. is thus divided among four candidates: Prof. Gubler receives 5000 fr. for his "Histoire de l'Action Physiologique des Effets Thérapeutiques des Médicaments inscrits dans la Pharmacopée Française"; M. Le Grand du Saulle receives 2000 fr. for his "Traité de Médecine Légale et de Jurisprudence Médicale"; MM. Bergeron and l'Hote receive 2000 fr. for their "Etudes sur les Empoisonnements Lents par les Poisons Métalliques"; and M. Manuel receives 1000 fr. for a memoir on the establishment of a public service for medical assistance. 13. The Montyon Prize in Experimental Physiology of 764 fr. is adjudged to Prof. Faivre, Dean of the Faculté des Sciences of Lyons, for his various works on the functions of the various portions of the nervous system of insects. M. Faivre's principal experiments were performed on one of the coleoptera (*Dytiscus marginatus*), which, by reason of its size and vigorous constitution, was adapted for vivisection. They were pursued in a methodical manner, successively isolating, stimulating, or destroying the nervous ganglia. Prof. Faivre has proved that in insects the localisation of functions and the division of physiological action are carried farther than was supposed. The results obtained by his researches are not only applicable to a single zoological species, but throw light upon the physiological history of articulated animals in general. 14. The Lacaze Physiological Prize of 10,000 fr. is decreed to Prof. Chauveau, Director of the Lyons Veterinary School, for his various investigations on virulent and contagious diseases. After announcing this award, M. Frény expressed himself as follows with regard to these researches :—

"Few questions present more interest than those which have been investigated by Prof. Chauveau. Their object, in fact, is the discovery of the causes of contagious diseases, the means by which they are communicated, and how protection from them is to be obtained. M. Chauveau has not confined himself to simple observation of facts produced by accident or disease, but has had recourse to experiment. He has first proved that the virulent activity of the vaccinal, variolic, and glanderous humours is not due to the totality of these liquids, but most frequently to corpuscles which are held in suspension in these. A discovery of this importance leads pathological physiology into a new and fertile path, explaining the mode of development and propagation of contagious diseases. It demonstrates, in fact, that the agent of contagion is not, as was formerly admitted, a subtle and mysterious principle disengaged from the bodies of the patients, but really a kind of ferment, a tangible substance upon which we may act, and the effects of which we may consequently paralyse. M. Chauveau has also recognised the fact that the agents of contagion are not confined to the liquids proceeding from the bodies of the sick for their vehicle, but that they are capable of being transmitted to healthy animals by the intermedium of water or air—that is, by the air and digestive passages. These experiments have led him to investigations of the highest interest concerning variola and vaccinia. He has proved that vaccinia is not, as has been supposed, human variola attenuated by its passage through the economy of the cow, but that it constitutes a proper disease, having its autonomy, the primary source of which is the organism of the horse—reproducing, as it were, at will what we may call the beneficent affection which M. Bouley designates horse-pox. All these discoveries will assuredly have, at some future time, the most fertile consequences for the treatment of variola in man."

Professor Billroth in Hot Water.

This eminent clinical professor has recently published an extraordinary book, or as it might, were it not for its size (exceeding 500 pages), perhaps be better entitled, pamphlet; and that he anticipated a somewhat stormy reception for it may be supposed, when he states in his preface "that there are not many books published which, both by their form and contents, are likely to present so many points of attack for criticism as this." It is entitled, "On the Teachers and Students of Medical Science in the Universities of the German Nation, with General Observations on Universities: a Cultur-Historic Study." Perhaps no book of the kind has ever met with greater or more general reprobation, for while the critics wishing to view any product of its author's pen as favourably as possible, and maintaining that it does contain much valuable information, regret its publication, others less partial regard this as a "moral suicide." In fact, its appearance does seem motiveless, for while the present state of things is stigmatised with an acerbity of style and an amount of invective unusual at the present day, no practical scheme of amendment is suggested. Moreover, the work seems to have been hastily put together, as it has been convicted in various grievous errors as to facts that should have been guarded against carefully when such grievous imputations were contemplated. Billroth's withering sarcasms have caused the greater pain and irritation as directed against a body of professors amongst whom he—almost the only one not an Austrian—has been received with cordiality and courtesy, and treated with every honour. One would have thought that, having suggestions to make which must necessarily prove unpalatable to many, these would at least have been couched in less combative language, and accompanied by a due consideration for a system of instruction which has, whatever may be its faults, given rise to the establishment of the greatest clinical school in Europe. But tact and discretion seem to form no part of the author's plan, and when he has to do with the students, his own pupils, his language becomes overbearing and irritating in the extreme. Perhaps we should say a portion of the students, for Prof. Billroth's vituperation is especially directed against the Jewish portion of the students. But this in Vienna, where pupils resort to from so many of the Austrian provinces, constitutes a very large portion; and the way in which the Professor has stigmatised these as beggarly, idle, mischievous, grossly ignorant, has excited general indignation wherever his words have penetrated. Even his defenders admit that his experience amidst this class of students must have been peculiarly unfortunate, while the great bulk of critics protest against his statements as notoriously untrue and unjust. He does not, indeed, confine his diatribes to student-life, but belabours the whole Jewish race with a rancour worthy of the *odium theologicum* of olden times—and that in a country where so large a number of its members have risen to posts of such deserved eminence. The students themselves, thus, as it were, challenged, can hardly be blamed for having manifested their disapprobation in the only way open to them; and, accordingly, when the Professor presented himself to his class, he was received with a storm of indignation. This probably would have sufficed as a protest, but certain injudicious friends of the Professor, who are indeed accused of having packed the theatre to the exclusion of some of the students, raised the cry of "Vivat Billroth! Hinaus Juden!" which exasperated the mass of the audience to such a point that a regular row or shindy ensued, during which the platform was scaled, and the Professor, with his friends, expelled the theatre. The conquerors avenged themselves with inscribing on the blackboard, "Pereat Billroth"; and there the matter will probably end, for the Viennese students are far more easily dealt with than the Parisian, and will not require the coercive measures which are resorted to in order to restore order among them.

It is greatly to be regretted that so eminent a professor has shown himself to be, what the Germans call, so "*taktlos*" a man: for anything that he had advanced in a calm manner, founded on well-ascertained facts, and unaccompanied by injurious aspersions, would certainly have received every attention. As it is, in Professor Billroth's opinion, to be poor, and without commanding intellect, and, above all, to belong to the Jewish persuasion, is, or ought to be, a disqualification for the profession. "I regard it as a duty," he says, "to advise everyone who has not a certain amount of money, culture, and talent, to avoid entering upon medical studies." "Where," exclaims the mover of a resolution condemnatory of Billroth's book, at one of the medical societies, "are we to get our medical students if the rich will not, and the poor must not come?" In face of such a doctrine as this, Vienna will never see arriving at her gates men like some of the glories of French medicine and surgery, who, reaching Paris with only a few francs in their pockets, yet have left names that will never die.

REVIEWS.

A Treatise on Surgery: its Principles and Practice. By T. Holmes, M.A. Cantab., Surgeon to St. George's Hospital. London: Smith, Elder, and Co. 1875.

In writing a treatise on so extensive a subject as Surgery, which shall not be too voluminous or elaborate to serve as a text-book, nothing is more difficult than to know exactly to what point to carry the process of condensation. On the one hand, there is the danger of making too great a demand upon the time, the space, or the pocket of the student; and on the other, of presenting a mass of material which, by its condensation, is reduced to a dryness which renders it very difficult of digestion. Mr. Holmes, in the work before us, seems to have exactly hit the happy mean, and to have produced in a convenient form a most complete and accurate surgical text-book. It is also necessary in such a work to give an impartial judgment upon many disputed questions and opposed methods of treatment; and no one is more competent to do this than Mr. Holmes, whose writings are notably distinguished by their clearness of thought and judicial accuracy.

The book is an extremely fair exposition of British surgery, and its illustrations are, of course, largely drawn from the case-books and museum of St. George's Hospital; but it exhibits, also, a thorough knowledge of, and gives abundant references to, the works of American and Continental surgeons. It is intended to some extent to be an introduction to the more elaborate "System of Surgery," of which Mr. Holmes is the editor, and the treatises of that System have (as is explained in the preface) been freely used; but at the same time it contains much valuable matter drawn from the stores of its author's own experience.

Mr. Holmes has rightly included chapters on diseases of the eye, ear, and skin; and we quite agree with him "that a knowledge of the main principles of diagnosis and treatment ought to be possessed by every surgeon in the case of diseases of the organs of the special senses quite as much as those of the rest of the body. Among the many injuries which the curse of specialism has inflicted equally on the profession and the public, not the least has been the neglect of the diseases of those organs which some practitioners and many students seem almost to regard as natural."

The section on diseases and injuries of the eye is written by Mr. Brudenell Carter, who justly points out how little excuse there is for such neglect, for the common forms of eye disease "are, as a rule, extremely easy of recognition, and are highly amenable to well-directed treatment."

It is now many years since Sir Thomas Watson pointed out how many useful lessons we might learn from a study of diseases of the eye, wherein we may observe, as through a glass, many morbid processes which in most other parts are hidden from our view. The study is still none the less useful, and Mr. Holmes is to be congratulated on obtaining for his readers the able assistance of his colleague Mr. Carter. The chapter gives a brief but very practical sketch of the subject. The description of the mechanism of squint it would be difficult to surpass for clearness and brevity; and we would especially commend the explanation of the principles on which spectacles should be used, and the rules laid down for the administration of mercury in iritis. We are glad to see the evils of astringent applications in iritis pointed out, and would also note the excellent directions for bandaging the eye given at page 667. We can testify to the advantages of division of the orbicularis muscle and other tissues at the external canthus in cases of severe photophobia, but are surprised that Mr. Carter makes no mention of counter-irritation for this, although he commends it for vascular keratitis. We have seen most surprising relief to photophobia by the application of a strong solution of iodine behind the ears. The operation recommended for the extraction of cataract is the modified linear, the general idea of which is "that the preliminary incision should be no longer than is required for the exit of the lens; that it should lie entirely in a portion of a larger circle than that of the cornea; that it should be in a tissue which will heal readily; and that the escape of the lens should be facilitated by the excision of a portion of the iris."

The book commences by a brief account of the process of inflammation, and of traumatic fever. The different modes of repair are described, and it is pointed out that "the longer a cicatrix is in forming, the more imperfect will be its organisation"—a strong argument, it seems to us, for grafting upon all inactive ulcers.

The section on dressing wounds contains a description of the antiseptic method, and an impartial estimate of its value. The author expresses his "strong conviction of the value of the method of dressing wounds which Mr. Lister has introduced," and advocates its use, partly on the ground that it necessitates "the dressing of important cases by the surgeon or house-surgeon themselves"; and he explains that this advocacy does not of necessity involve any adhesion to the "germ theory of disease." The complications of wounds and injuries are then treated of; the account of pyæmia being marvellously clear and comprehensive, though of course very brief. References are given to the most recent works dealing with the etiology of this class of diseases. Mr. Holmes distinguishes hospital gangrene from phagedæna, and does not believe that opium exerts any specific influence on the spread of the latter; we think, however, that he under-estimates the value of the drug in such cases.

The remarks on the treatment of delirium tremens are extremely judicious, and we are glad to see that Mr. Holmes warns the reader of the danger of over-narcotism or over-stimulation in this disease. We cannot refrain from a short quotation on this subject, which is typical of the sound common sense and vigorous reasoning of the author:—"Great as the virtue of opium and morphia is when judiciously employed, we must not forget that when not well borne they constantly produce delirium, and that a form of delirium tremens has sometimes been known to be produced by opium-eating. Nor can I see on what grounds of reason or of therapeutical experience we can expect a cessation of the effect from a continuance of the very irritation which produced it. Yet this is exactly what is implied in the routine treatment of delirium tremens with stimulants. We find a patient who has soddened his brains with gin and beer, and probably has already suffered from previous attacks of delirium, and we think we shall cure him with more gin and beer."

The chapter on hæmorrhage contains an excellent description of the various modes of arresting bleeding, and proof is given that by the use of carbolised catgut ligatures an artery can be obliterated at the seat of ligature without being divided. The author, while speaking with perfect fairness of other methods, gives the preference, as we think justly, to the ligature. We think, however, that the actual cautery might be much more extensively used than it is; it leaves nothing but a minute portion of charred tissue in the wound, and is a perfectly efficient styptic.

After a short chapter on burns and scalds, in which Dupuytren's classification is followed, the general pathology and treatment of fractures and dislocations is treated of. Then follow the chapters on the various injuries, commencing with those of the head. Herein are careful directions for the diagnosis of intracranial suppuration and hæmorrhage, and an allusion to the difficulty of distinguishing the latter from apoplexy—a point very necessary to be remembered by house-surgeons. The question of trephining in compound fracture should be determined, Mr. Holmes points out, partly by the presence or absence of cerebral symptoms, but also to a great extent by the amount and extent of depression: "the more a fracture approaches the 'punctured' form, the more is trephining indicated." We are glad that Mr. Holmes points out that fracture of the base of the skull is by no means necessarily fatal, for we have observed among the majority of students a very exaggerated idea of the mortality of this injury. There are some good remarks on the temperature in head injuries.

In the section on foreign bodies in the windpipe, a remarkable case is mentioned and figured, showing the difficulties of diagnosis, both bronchi having been partially obstructed by a piece of tobacco-pipe, which lodged in the right bronchus and projected across the trachea. When speaking of tapping the chest and of the use of the aspirator, the author remarks that the exclusion of air, if possible, is not always desirable, and shows that the attempt may lead to tearing of the lung; another danger not alluded to is that of hæmorrhage into the pleura caused by the suction upon a vascular false membrane.

The rules for treating injured viscera are very clearly laid down; and the author always gives good reasons for his opinion on any doubtful point—as, for instance, the retention of a catheter in the ruptured urethra.

The chapters on injuries of the extremities are particularly

full and instructive, and contain some good illustrations of fractures of the cervix femoris, and also some (after Bigelow) of dislocations of the hip.

The section on tumours is exceedingly good and well illustrated. The author broadly divides tumours into innocent, sarcomatous, and carcinomatous; and describes with great clearness their characters, anatomical and clinical. The most recent views of scrofula and tubercle are briefly sketched; and the author gives his impression (which from his large experience in this class of cases ought to carry great weight) that the majority of cases of so-called strumous disease of joints "have no connexion of any sort with any constitutional peculiarity."

Gonorrhœa and syphilis are next treated of, concerning which we will only in passing express our regret that the congenital form of the disease is not rather more fully described; for we are satisfied that there are few children's diseases more often mistaken than the less well-marked cases of inherited syphilis, while at the same time there are few more amenable to appropriate treatment.

The chapters on diseases of the bones and joints are among the best in the book, and exhibit much of the author's personal experience. The museum of St. George's Hospital, so rich in specimens of these diseases, furnishes numerous illustrations. No mention is, however, made of the epiphysial affection seen in inherited syphilis, and described by R. W. Taylor and others. The description of rickets is very comprehensive, and stress is justly laid upon the constitutional character of the disease. The remarks upon the different kinds of anchylosis and their treatment are judicious, and a proper warning concerning the gravity of some of the so-called subcutaneous operations is given. Diseases of the spine have a separate chapter, in which the diagnosis of psoas abscess is made very clear.

The subject of diseases of the arteries is treated, as might be expected from Mr. Holmes, with conspicuous ability. It would be difficult to find anywhere a larger amount of accurate information given with greater clearness or in smaller compass. Moreover, we have the advantage of the author's judgment upon questions of diagnosis and treatment, which he has especially studied. There is a useful page of diagrams illustrating the various kinds of aneurisms; and the exposition of the various surgical aneurisms is accompanied by a description of the operation for tying the affected artery.

In the chapter on diseases of the absorbents, an admirably succinct description of lymphadenoma is given; but we cannot agree with the author that "treatment is successful in many of the milder cases." One of the chief notes of this disease is its progressive and malignant character.

In the descriptions of deformities and diseases of children —as, *e.g.*, hare-lip and cleft palate,—the author naturally draws largely upon his work on "The Surgery of Childhood," from whence good illustrations of the anatomy and treatment of hare-lip are taken.

Of diseases of the intestines, internal strangulation is first considered, and in connexion with this the operation of colotomy is described. In the chapter on hernia we are glad to see the different forms of truss and their mode of application explained. An important matter about which very little is usually said in books on surgery—the anatomy of various forms of hernia—is fully described and illustrated.

In the section on diseases of the larynx, practical directions are given for the performance of tracheotomy, and the danger and complications likely to be met with pointed out.

After the chapter on diseases of the eye, of which we have already spoken, is a sketch of the chief affections of the ear, giving such information on this subject as every surgeon ought to possess. Then follows a very comprehensive account of diseases of the urinary organs, the different methods of treating stricture being considered with the characteristic impartiality of the author. Dr. Bence Jones's table for the chemical examination of urinary stones is given, as also are brief practical rules for the selection of the kind of operation to be resorted to.

Of the portions treating of the diseases of the organs of generation and the surgical diseases of women, we would especially commend those upon tumours of the breast, which are excellently clear and terse.

After a brief outline of the principal skin diseases and their treatment, comes a chapter on minor surgery, anæsthetics, and operative surgery, with which the book ends. Herein are drawings of the stumps of amputation, showing the relative positions of the more important structures cut through; also descriptions and illustrations of the principal excisions.

The illustrations, of which there are more than 400, are of very unequal merit; some of them—as, for instance, most of those relating to diseases of the bones—are very good; others—for example, that of cystic disease of the testis (No. 379)—are very indifferent. The book contains a table of contents, a list of illustrations, an index of authors referred to, and a copious general index; it is well printed, on good paper, and has (what all text-books ought to have) marginal references. We have no hesitation in recommending this work as by far the best of existing surgical text-books: it is well up to the time, it exhibits a thorough acquaintance with surgical literature and practice, is characterised by the most impartial fairness, and is written in excellent English.

Christian Psychology: The Soul and the Body in their Correlation and Contrast. Being a new translation of Swedenborg's Tractate "De Commercio Animæ et Corporis," etc.; Londini, 1769. With Preface and Illustrative Notes by T. M. Gorman, M.A., Hertford College, Oxford; some time Curate of St. Mary Abbotts, Kensington. London: Longmans, Green, Reader, and Dyer, Paternoster-row. 1875.

Christian Psychology!—Before reaching the close even of the translator's preface, we were greatly tempted to cast the work aside with a feeling of disgust at the intolerant spirit displayed; and which we subsequently find pervading the greater part of the appendix. He affords an unusual example (let us trust) of a Swedenborgian Church-militant only too ready for strife—his battle-cry "*Væ Victis!*" Nevertheless, we take leave to remind him that, independently of certain great lessons which members of his calling do, or ought by example, as by precept, to enforce, controversy nowadays is mostly conducted in conformity with the recognised canons of good breeding, and he who consciously violates them is, by common consent, ruled out of court. If it were desired that even the scientific claims of Swedenborg should find attentive reconsideration, no worse medium could conceivably have been selected. Irremediable damage must be done to any cause by an advocate so intemperate and injudicious.

What will Cardinal Manning, Darwin, Herbert Spencer, Tyndall, Huxley, Bain, and Drs. Carpenter and Maudsley say, if by any accident they should hear of the furious diatribe launched against them? Well, we may suppose the eminent prelate, with the rest, to smile—and well they may.

Before proceeding to a brief notice of the Tractate, let us state, *in limine*, our belief that its author was a good and earnest man, steadfast to the close of a long life in the belief of his divine mission; a man of learning, for his time encyclopædic, of great sagacity, originality, and unwearied industry. Still, as is hinted further on, there is another light in which he is to be regarded, judging from some of his theological writings.

In treating of the Commerce of the Soul and Body, Swedenborg first asserts the existence of two worlds—a Natural World and a Spiritual World; of two suns—a Natural Sun and a Spiritual Sun. The Natural Sun is pure fire. With acute prevision, he maintains the Natural Sun to be, by virtue of its Light and Heat, the efficient source not only of the *existence*, but of the perpetual *subsistence* of mundane being. In this particular he stands out, like the elder Pliny, as a great pioneer in the domain of Physical Science, for this view is now its latest adoption.

Next comes the important inquiry into the sources of "Influx" (of spiritual knowledge). According to the author, there are but three conceivable sources. First, the "Natural or Physical Influx," *i.e.* by Sense. This source is not worth one moment's consideration, being contrary to the principle of Order and its laws. Second, the theory of "Pre-established Harmony" is criticised: it fails, in not embracing Succession as well as Simultaneity. The last and only possible source, then, is "Spiritual Influx" direct from the "Spiritual Sun." This, as Love and Wisdom, flows *mediately* through the Mind into the Will and the Understanding: for these are the faculties of the mind. "The human Soul, in that it is a spiritual substance of a superior order, is a recipient of 'influx' immediately from God. On the other hand, the human mind, as being a spiritual substance of an inferior order, is also a recipient of influx from God, but *mediately* by way of the 'Spiritual World.'" And this is in perfect

harmony with Authoritive teaching. The "Influx" is part of the same divine *afflatus* which originally transformed the "image" made of "dust" into a "living Soul."

But these are matters the consideration of which does not come within our prescribed limits. In our department, we can only deal with the question of the personal nature, so to speak, of Swedenborg's spiritual insight, in connexion with the source from which it is alleged to be derived.

In various parts of the Tractate he makes the following statements:—That he "has been endowed with the gift of being in fellowship with angels in the Spiritual world, *and at the same time* with men in the Natural world"; "that it has pleased the Lord to open the sight of my spirit, and to cause it to ascend up into Heaven, and also to go down into Hell, and to display to its view the distinctive characters of each." "I have seen that Sun" [the Spiritual Sun]; "I have heard a voice from Heaven"; . . . "I will here add, in support of these statements, a truth not hitherto revealed. All the Angels of Heaven turn the forehead to the Lord as a Sun; and all the spirits of Hell turn the back of the head to Him." Lastly, that he has held philosophical converse with the spirits of departed philosophers.

Now, assertions of this description naturally excite the fear that, in addition to an over-taxed brain, this long-continued, ardent, concentrated striving after the supernatural, might have induced such a mental condition as Dr. Maudsley or any other "*expert*" would have viewed with great misgiving.

Holding this opinion—that is, doubting the supernatural spiritual illumination—we may not accept, without distrust, the credentials of the Apostle of the "New Jerusalem."

The great bulk of the volume is made up of *exeerpta*, by the translator, from the writings of theologians and philosophers, mostly of a bygone time, and possess little of present interest, save to those who yet cling to the study of pure metaphysics. Modern views are introduced; but, with one or two exceptions, they are made the occasion of unrestrained abuse of their authors. Helmholtz escapes, though we do not perceive that he could assist the cause, especially in regard to the mechanical construction of the organ of vision. He might have been better replaced by Stahl, and other of the Animists.

What we would take the liberty of suggesting to the reverend gentleman is as follows:—That he should be less lavish of abuse; that he should clear away much of the semi-mediæval mist in which his own views are enshrouded; that he should lean less heavily on the arm of other people, and give us a good modern treatise on Rational Psychology, which, according to him, deals with the "Nature and Essence of the Soul," to some extent after the manner of Dr. Newman, if he will. He might thus aid in the revival of the fast-waning taste for Ontological speculation.

Archives of Dermatology. Vol. I. Edited by L. Duncan Bulkley, A.M., M.D. New York: G. P. Putnam's Sons. London: Sampson Low and Co., Fleet-street. Pp. 384. 1875.

This work is the first volume of a quarterly journal of skin and venereal diseases, edited by Dr. Bulkley, who is assisted by a number of other eminent American physicians, among whom are Drs. Beard, G. H. Fox, R. W. Taylor, and F. D. Weisse, of New York; Dr. J. C. White, of Boston; and Drs. L. A. Duhring and A. Van Harlingen, of Philadelphia. From the editorial remarks, we learn that while the *Archives* is intended to record, as far as possible, all that is new and valuable in the department of skin and venereal diseases, it will be prepared rather with a view to the wants of the general profession than to those of the specialist. The volume now before us contains a large number of valuable original papers, besides abstracts of the most important papers on skin and venereal diseases that have appeared in other journals. Such an ably conducted journal as the *Archives of Dermatology*, containing as it does such a mass of practical matter, is worthy of the support of all who are desirous of adding to their stock of knowledge of skin diseases.

Mr. David Mocatta has been appointed to fill the vacancy consequent upon the resignation—from failing health, we regret to say—by Sir Digby Wyatt of the trusteeship of the Soane Museum. Mr. Mocatta is the only surviving pupil of Sir John Soane.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, December 14.

Sir James Paget, Bart., F.R.S., D.C.L., LL.D., President, in the Chair.

A Case in which Abdominal Section was successfully performed for Intussusception in an Infant seven months old.

Mr. Howard Marsh gave an account of the above case. An infant, seven months old, a patient of Dr. Miller and Dr. Barnes, of Eye, in Suffolk, was attacked, on March 29 last, with the symptoms apparently of dysenteric diarrhœa—sickness, griping, abdominal pains, and too frequent action of the bowels. This condition was for a time relieved by medicine, but on the third day it recurred, and was then accompanied with tenesmus and the passage of blood and slimy mucus. The child remained about the same, but with no serious disturbance of the general health, until the morning of April 11, when the whole complexion of his attack suddenly changed. The pain became very severe, sickness frequent, tenesmus violent and almost constant, and he grew pale and restless. Dr. Barnes found the bowels projecting two inches beyond the anus, and could see the ileo-cæcal valve at the extremity of the protrusion; while in the abdomen a firm cylindrical tumour was felt extending in the course of the descending colon from the left of the umbilicus to the left iliac fossa. Insufflation and the careful distension of the large intestine with lukewarm water failed to reduce the intussusception. When the child was seen, late in the evening, he was in a state of collapse, with a frequent, feeble pulse, and he was pale and frequently sick. The abdomen was opened to the extent of two inches in the middle line just below the umbilicus. Great care was required to avoid wounding the intestine which protruded into the wound. The intussusception could not be reduced until it was drawn out through the incision, but then it was easily reduced. The only difficulty in the operation consisted in the return of the considerable amount of intestine that now lay on the surface of the abdomen; but this was accomplished without any great delay, and the wound was then closed with harelip-pins and superficial sutures. No bad symptoms followed. Sickness ceased at once after the operation; flatus was passed on the next, and a fæculent motion on the third day; the sutures were removed at the end of eighty-four hours, and the child was convalescent on the fourth day. The author remarks that the interest of the case is increased if it is read in connexion with Mr. Hutchinson's paper on intussusception, published in vol. lvii. of the *Transactions*, for it confirms in a striking manner that writer's observation that in many cases of intussusception the volvulus is neither inflamed, adherent, nor strangulated, but is like a piece of intestine lying loose in a hernial sac, and admitting of being easily reduced by an appropriate slight force. In the present case it seems almost certain that the intestine was for thirteen days merely invaginated, and that inflammation, with all its attendant dangers, set in only twelve or fourteen hours before the operation. Mr. Hutchinson, in his paper, expressed his anticipation that abdominal section would be less likely to succeed in very young children. This, however, to judge from the present instance, is not the case. The author concludes by referring to the necessity for the careful consideration of any particular case before the operation is performed; but he thinks it should be undertaken—if all other means have failed—first, in acute cases of not more than twelve or eighteen hours' duration; and, secondly, in chronic cases in which there have been no symptoms of inflammation or strangulation of the intestine.

Case of Intussusception in an Adult, without Symptoms of Strangulation, treated successfully by Abdominal Section.

Dr. C. Hilton Fagge and Mr. Henry Howse communicated the particulars of this case, as follows:—The patient was a woman, aged thirty-three, whom Dr. Fagge was called to see, in consultation with Dr. Adcock, of Abbey-street, on June 28 1874. She had been suffering for fifteen days from paroxysmal

pain in the abdomen; and after she had complained of this for eight days, Dr. Adcock had observed a tumour, which was at first situated in the right iliac fossa, but which afterwards moved over to the left iliac fossa. She had had a little sickness, but no decided constipation. The tongue was clean. The pulse was scarcely above the natural rate. From the characters of the tumour it was diagnosed as an intussusception, and inflation of the rectum was practised the same day, but with no result. On June 29, Mr. Howse was called in, and the bowel was again inflated, with better instruments; this gave intense pain, but had the effect of altering the position of the tumour, which now lay behind the umbilicus. On June 30 inflation was practised for the third time, without producing any change in the tumour. On July 1 the condition of the patient was the same. She had had a slight return of the sickness in the morning, and a little pain. Her bowels had not been open since the first inflation; the tumour was still to be felt. Another consultation was held, and having obtained the consent of the patient and her husband, Mr. Howse proceeded to open the abdomen by a vertical incision opposite the umbilicus. The intussuscepted mass was readily felt; and, as it could not be reduced *in situ*, it was drawn out of the wound. Even then, pulling at the ends failed, and it was only by a kind of kneading movement, with pressure upon the distal end, that reduction was effected; and it was particularly noticed that there was a little hitch just when the last part of the invaginated mass was emerging. The length of the included bowel was at least eighteen inches. All the precautions of the antiseptic method were employed during the operation and in the after-treatment; and special care was taken to prevent any considerable quantity of carbolic lotion from flowing into the peritoneal cavity. She recovered without a bad symptom, the temperature never rising above normal, and the wound healing by the first intention. At the present time she is well, and expecting her confinement. In this case hæmorrhage from the bowels was absent, which has hitherto been regarded as a cardinal symptom of intussusception. In their remarks the authors show that it is of great importance not to delay the operation of abdominal section until hæmorrhage occurs. The significance of this symptom has hitherto been misunderstood. It had been supposed by some writers, including Dr. Fagge, to indicate the commencement of the processes which lead to the sloughing and detachment of the invaginated part of the bowel. The authors now point out that this is a mistake, but they also show that it often is evidence of extreme congestion and swelling of this part—a condition which may destroy the patient's life in a few days, and which may render the operation of abdominal section a failure, by making it impossible to reduce the intussusception when the abdominal cavity has been opened.

A Second Case of Abdominal Section for Intussusception into the Colon; with Remarks on the Details of the Operation.

Mr. Jonathan Hutchinson read a paper, of which the following is an abstract:—The paper consisted of the narrative of a fatal case of operation for intussusception on an infant aged six months, whom he had attended in consultation with Dr. Madge. The intussusception involved the whole length of the colon, and the ileo-cæcal valve, introverted, constituted its extremity, and was easily felt by the finger in the anus. The symptoms had been the usual ones; they had lasted three days, and the usual methods of treatment, perseveringly carried out, had failed. As the child was evidently about to sink, the operation was at once performed. Considerable difficulties were encountered in effecting the reduction of the intussuscepted part. Its neck was tied back in the loin by the mesocolon, and could not be brought into view; and although there were no adhesions, it was found quite impracticable to draw the intussuscepted bowel out of the sheath. At length it was found that, although the upper end of the intussusception was fixed, its lower one, containing the sigmoid flexure of the colon, was quite loose. This was readily brought out, and, by gently pulling the sheath downwards, reduction was easily effected. The appearance of the appendix vermiformis just at the completion of the reduction confirmed the opinion formed as to the introversion having begun at the cæcum. Considerable difficulty was encountered in replacing the intestines within the abdomen, and at the conclusion of the operation the infant was in alarming collapse. It rallied, however, afterwards, took the breast, and passed a motion. Death occurred about six hours after the operation, and the post-mortem showed evidences of recent extensive peritonitis. In connexion with the fact that the child's sister had died at the same age a year ago with a precisely similar condition of things, it was of interest to note that the cæcum appeared to be quite loose, possessing a mesentery which allowed of its very free displacement. The author suggested that this condition, as a congenital peculiarity, is probably the one which admits of displacement of this special part. He stated, also, that one of his chief objects in bringing the case before the Society was to suggest, for the guidance of future operations, the propriety of always seeking first the lower end of the intussusception. He believed it would generally be found much easier to bring the lower end into the wound without allowing escape of the rest of the intestines. He thought it probable, also, that it would usually be found much easier (as it was in this instance) to effect reduction by drawing the sheath downwards from off its contents than by drawing the contents upwards from within the sheath. The difficulty in reducing by traction results from the fact that the sheath becomes puckered up into rings, which act as so many strictures upon its contents. He thought it even possible that by attention to this rule reduction might sometimes be effected without bringing the parts externally.

Dr. Buzzard said that the late Dr. Brinton had collected a large number of cases of intestinal obstruction, nearly half of them being due to intussusception; and that of these last a very large percentage recovered. In considering the question of operation, Dr. Brinton separated intussusception from cases of obstruction due to adhesions, bands, diverticula, congenital malformation, or twisting of the gut. His opinion concurred as to the number of cases likely to recover from intussusception; and it would be necessary for surgeons to show that such an operation was justified when patients might recover without surgical interference.

Mr. Maunder said he had met with four cases of intussusception, but had not operated. In the case of one child injections of water and of air had failed to return the gut; but this was accomplished by means of an elastic catheter and the finger. In another case the child, two years of age, had six or seven inches of gut protruding from its anus, and this could not be returned. The mother, however, took the child away, saying that such an accident had occurred before, and had been recovered from without interference. This, indeed, happened in this instance next day. He did not think that blood in the stools was so dangerous a symptom as some seemed to imagine.

Dr. West thought a distinction ought to be drawn between intussusception in the adult and in a child. As regarded children, the discharge of blood, or of blood-stained mucus, was one of the earliest signs of intussusception, and this was usually low down in the gut. The discharge of blood was not indicative of death of the intestine, but was rather due to congestion of the constricted portion. The diagnosis in children was not difficult, even when the bowel did not protrude, or could not be reached per rectum. Many cases, but not so many as 43 per cent., recovered with no treatment or with soothing treatment and the avoidance of purgatives. He thought that injections of air or water ought not to be too long persisted in. Altogether he was glad to hear of a way out of the difficulty of dealing with these cases by surgical interference, but it was still a question how far the nervous system of the child would stand the shock of such an operation. Perhaps it would be found best to make at once an incision large enough to expose the intussusception.

Dr. E. Barnes said he had recently seen the infant whose case was narrated in Mr. Marsh's paper; it was quite well, and the cicatrix perfectly firm. There was an important distinction between intussusception at the ileo-cæcal valve and in the small intestine, the latter often tending to spontaneous recovery after sloughing. The diagnosis of intussusception in the infant was not more difficult than in any other internal disease, and operation might be safely had recourse to. He had seen cases post-mortem where reduction was quite easy, and it would be wrong in surgeons not to have recourse to the operation when other means had been tried and failed.

Mr. T. Smith thought the deductions as to bleeding very valuable, especially that hæmorrhage indicated not a dead but a living condition of the bowel. Some years ago, such interference with the peritoneum as was necessitated by such an operation would have been considered unjustifiable, but the results obtained by Mr. Spencer Wells and others in ovariotomy

had shown that such interference was not likely to do harm, and that sponging the stomach and liver was less injurious than leaving in the peritoneum blood or other matters liable to decomposition. A long incision might certainly shorten the operation, and lead to more speedy relief. It might often be necessary to puncture the bowel; and it would be a question whether it would be better to make free puncture with a trocar, or to use needles. With reference to Dr. Buzzard's remarks, he said that no surgeon worthy of the name would operate until all means employed by physicians had been tried and had failed.

Mr. Holmes said that no doubt the operation would be facilitated by a long incision. There was a fallacy in the statistics derived from alleged cases of recovery. In a large number of these cases surgeons would not think of operating. The three cases related illustrated the forms of the disease in which operation might be performed.

Mr. G. Pollock thought Dr. Fagge's hint as to caution in injecting air or water very important. He had made some experiments on the capability of the intestines to bear injection, and had found a great tendency to rupture of the peritoneum without the bowel giving way. He believed that this cracking of the peritoneum was often the cause of fatal peritonitis in cases of intestinal obstruction.

Dr. Hare said that an important element in cases of intussusception was congestion, which was great in proportion to the constriction. He had used iced water in several cases with great success, two or three being unmistakable cases of intussusception. Bladders of ice should also be applied over the abdomen. These means reduced the congestion, and also diminished the volume of air in the intestine, and relieved the distress.

The President expressed a high opinion of the value of the papers, and said that a wide field had been opened to surgeons in regard to abdominal operations. He remembered that formerly in the Society the idea of operating on the abdomen had been received with much doubt.

Mr. Howard Marsh said, with reference to the risk of operation on the abdomen, that operations were regarded as justifiable in which the mortality was as high as 60 or 70 per cent., but which gave the patient a last chance. He thought that experience had shown that the mortality from abdominal section was not so high as this. Recovery had occurred after laying open the abdomen (for ovariotomy) in pregnant women, and performing the Cæsarian section. It was well known that the statistics of ovariotomy had been greatly improved in the hands of Mr. Spencer Wells, by guarding against collections of septic fluid in the abdomen. He believed that cases of intussusception should be operated on in the acute stage.

Dr. Hilton Fagge said that hæmorrhage per anum was sometimes a dangerous symptom; it did not, however, indicate sloughing, but congestion, increasing the difficulty of replacement. He thought that if cases could be diagnosed sufficiently early, operation should be performed when all other means had failed, though no hæmorrhage had taken place.

Mr. Howse had had to return distended intestine in four or five cases of obstruction. In two cases, he had punctured with a very fine trocar and canula, and liquid fæces had escaped—apparently in consequence of paralysis of the muscular fibre and insufficient eversion of the mucous membrane. It might, perhaps, be best to puncture with a lancet, and apply sutures to the opening in the bowel. As to hæmorrhage, he agreed with Dr. Fagge that it probably took place in the first stage.

Mr. Hutchinson said that the most valuable contribution on the subject would be a collection of the statistics of cases where the presence of intussusception had been diagnosed beyond doubt by examination per anum. As to the length of the incision, no conclusion could be drawn from ovariotomy, where a great part of the contents of the abdomen were removed; whereas, in intussusception, all had to be returned into the abdomen. He would not make a larger incision than was absolutely necessary. As to puncture of the intestine, he had never done it except in the case now related, and would never do it again if he could possibly avoid it.

The result of the recent examination in Arts for the diploma of fellow and member of the College of Surgeons has just been sent in, and will be made known after it has been submitted to the Court.

OBITUARY.

PROFESSOR DR. EDOUARD MARTIN.

The *Berliner Klinische Wochenschrift* of December 13 contains the following necrology of this eminent obstetrician, who died on the 5th ult.:—

"The Director of the University Lying-in Institution and of the Gynæcological Clinic, Herr Geheimrath Prof. Martin, was born at Heidelberg in 1809, and at the desire of his father, who was a well-known juridical teacher, commenced the study of jurisprudence. Having, however, manifested a decided preference for medical science, he at last obtained his father's permission to follow the bent of his inclinations. Having received his doctor's degree at Göttingen, he attached himself to the celebrated Naegele at Heidelberg, in order to obtain special instruction in midwifery. Having visited Berlin, Vienna, London, and Paris in order to complete his scientific education, he returned with a desire to pursue the academical career, and established himself at Jena as Privat-docens in Midwifery in 1837. He was soon afterwards made Director of the newly formed Midwifery Institute of that University, and established a polyclinic, which enabled him to obtain a large number of midwifery cases for the instruction of the students. In 1858, after the death of Prof. Busch, Martin (chiefly on Schönlein's recommendation) received a call to Berlin, and his restless energy soon enabled him here also to establish a midwifery polyclinic, as well as a Dispensary for Diseases of Women, which supplied such an abundance of material that no midwifery clinic in the world could compare with that of Berlin. Among many other publications by Prof. Martin, we may mention those on the Administration of Chloroform during Labour, on External Turning, the Circulation-Sounds in Pregnant Women, the Manual for Midwives, Transfusion in Lying-in Women, Puerperal Salpingitis, the Gynæcological Atlas, and Flexions of the Uterus. For ten years (1859-69) he was co-editor of the *Monatschrift für Gebürtskende;* and shortly before his death, with all the energy of his younger days, he undertook the editorship of the new *Zeitschrift für Gebertshülfe.* The number of students which his fame as a practical gynæcologist attracted was very large, and four of his former clinical assistants now occupy distinguished posts as teachers—viz., Professors Olshausen, Winckel, Gusserow, and Frankenhäuser."

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 30, 1875:—

Budgett, John Alfred Henry, Backchurch-lane, E.
Woollett, Charles Jerome, Monmouth.

The following gentlemen also on the same day passed their primary professional examination:—

Duke, George Amos, St. Mary's Hospital.
White, Octavius Mark, St. Mary's Hospital.
Pedley, Thomas Franklin, Guy's Hospital.
Schön, James Edward, Middlesex Hospital.
Hewett, Augustus, St. Bartholomew's Hospital.
Wood, John Francis, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Duffey, George F., M.D.—Physician to the Molyneux Asylum and National Institution for the Blind of Ireland, *vice* J. W. Moore, M.D., resigned.

Ewart, William, M.R.C.P. and M.R.C.S.—House-Physician at Addenbrooke's Hospital, Cambridge.

Head, Henry H., M.D.—Consulting Physician to the Molyneux Asylum and National Institution for the Blind of Ireland.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—R. W. Beaumont, Fleet Surgeon, to the Royal Marine Artillery; Hait Gimlett, Fleet Surgeon, to the *Royal Adelaide;* J. Caldwell, Fleet Surgeon, to the *Black Prince;* A. V. Smith, Surgeon, to the *Impregnable.*

War-office, Pall-mall.—Medical Department: Surgeon-Majors Walter Leach, Donald Macgillivray Davidson, M.D., and Charles Henry Leet, retire upon temporary half-pay; Surgeon-Major John Madden retires upon half-pay; Surgeons Rosslewin Morgan, M.D., Pierce George Power, M.D., Philip Patterson Lyons, M.B., and Alfred Lewis, M.D., retire upon temporary half-pay; Surgeon John Vicary Thatcher Malcolm, M.D., from half-pay, to be Surgeon, *vice* Edmund Vallance, who has resigned his commission.

Brevet.—Surgeon-Major John Madden to have the honorary rank of Deputy Surgeon-General upon retiring upon half-pay.

BIRTHS.

Buchanan.—On January 5, at 24, Nottingham-place, W., the wife of George Buchanan, M.D., of a daughter.

Gowers.—On December 31, 1875, at 50, Queen Anne-street, the wife of W. R. Gowers, M.D., of a son.

Hill.—At Turcoleah, Chumparun, Bengal, the wife of James H. G. Hill, M.D., of a daughter.

Rose.—On January 4, at the Military Hospital, Gosport, the wife of Surgeon-Major H. J. Rose, of a son.

Thomas.—On December 28, 1875, at 97, Bradford-street, Birmingham, the wife of William Thomas, F.R.C.S., of a son.

MARRIAGES.

Corfield—Pike.—On January 4, at St. James's, Piccadilly, William Henry Corfield, M.D. Oxon., F.R.C.P., of 10, Bolton-row, Mayfair, to Emily Madelina, youngest daughter of John Pike, Esq., of Old Burlington-street, W.

Johnston—Gelsthorpe.—On December 30, 1875, at St. Michael's Church, South Normanton, Derbyshire, William Johnston, Esq., M.D., F.G.S., F.S.A., of Clay-cross, to Emily Ada, youngest daughter of John Gelsthorpe, Esq., Alfreton.

Moore—Ridley.—On January 4, at St. Stephen's Church, Dublin, John William Moore, M.D., to Ellie, only daughter of the late John Ridley, M.D., of Moore Hall, Tullamore, King's Co.

Ratton—Doveton.—On December 7, 1875, at the Catholic Cathedral, Madras, James J. L. Ratton, M.D., Madras Army, to Marie Adolphine, only daughter of the late Brevet Lieutenant-Colonel Holroyd Doveton, Madras Army.

DEATHS.

Bassett, Ralph Digby, infant son of John Bassett, M.D., at Hockley Hill, Birmingham, on December 31, 1875, aged three months.

Chambers, Susannah Elizabeth, wife of Walter Chambers, Bishop of Labuan and Sarawak, and daughter of the late George Woolley, M.D., of Brompton.

Corsellis, Charles Cæsar, L.R.C.P., M.R.C.S. Eng., L.S.A., at Oxford, on January 1, aged 75.

Davies, E. J., widow of W. A. Davies, M.D., for many years Principal Medical Officer of the Honourable East India Company's Depôt Hospital, Chatham, at Chelsea, on December 29, 1875, in her 94th year.

Dresser, Sophia Ann, beloved wife of William Dresser, M.D., of Coventry, and eldest daughter of the late William Poulton, Esq., of Hertford, on January 2, aged 53.

Forbes, Jane Ogilvie, of Boyndlie, widow of John Charles Ogilvie Forbes, M.D., at 46, Bon Accord-street, Aberdeen, on January 2, aged 83.

McKeand, Joseph, M.R.C.S. Eng., L.F.P.S. Glasg., at 190, Oxford-road, Manchester, on December 29, 1875, 1875, aged 51.

Seward, Thomas, M.D., late of the 90th Regiment Light Infantry, and third son of the late Samuel Seward, Esq., of Weston, near Petersfield.

Williams, Owen Thomas, L.R.C.P., M.R.C.S., at his residence, High-street, Bangor, on December 26, 1875, aged 32.

Wilson, Robert, M.D., Surgeon-Major Madras Army, at Denton House, Elphinstone-road, Southsea (the residence of his brother, T. G. Wilson, Staff-Surgeon R.N.), on December 31, 1875, aged 48.

Wright, Samuel, M.R.C.S. Eng., L.S.A., late of Mount Sorrel, at Markfield, Leicestershire, on January 3, aged 74.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bolton Union.—Resident Assistant Medical Officer for the Workhouse. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. S. Cooper, Clerk of the Union, on or before January 10.

Central London Sick Asylum District.—Assistant Medical Officer. Candidates must possess a double qualification. Applications, with testimonials, to Mr. W. Appleton, Clerk to the Managers, Cleveland-street Asylum, Fitzroy-square, W., before January 10.

Derbyshire General Infirmary.—Assistant House-Surgeon. Candidates need not possess a qualification. Applications to the Secretary, on or before January 15.

Gloucester Infirmary.—Surgeon and Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Committee, under cover to the Secretary, on or before January 27.

Liverpool Eye and Ear Infirmary.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to H. H. Hornby, Esq., 8, Knowsley-buildings, Tithebarn-street, Liverpool.

Parish of Birmingham.—Resident Assistant Workhouse Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Guardians of the Poor of Birmingham, at the Parish Offices, Paradise-street, Birmingham, on or before January 16.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population computed according to the census of 1871.

RESIGNATIONS.

Barnstaple Union.—Mr. Joseph Harper has resigned the Second District; area 16,910; population 4205; salary £60 per annum.

Ellesmere Union.—Mr. R. S. Perkins has resigned the Overton District; area 5915; population 1720; salary £30 per annum.

Wrexham Union.—Mr. W. Price has resigned the Fifth District; area 15,941; population 3250; salary £35 per annum.

APPOINTMENTS.

Chepstow Union.—George H. H. De Wolfe, B.M. & M.C. Edin., to the Tintern District.

Crediton Union.—Hercules S. Traill, L.R.C.P. & S. Edin., to the Chawleigh District.

Headington Union.—Alex. S. L. Newington, M.B. Cantab., M.R.C.S. Eng., to the Wheatley District.

Malmesbury Union.—Charles W. Pitt, M.R.C.S. Eng., L.S.A., to the First District.

Malton Union.—Wm. T. Colby, M.R.C.S. Eng., L.S.A. Lond., to the Malton District and the Workhouse.

Welwyn Union.—John A. Kite, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Lond., to the District and Workhouse.

The Detection of Adulterated Tea.—From and after the 1st inst. the Commissioners of Customs have the power of appointing persons to inspect and analyse all teas imported into Great Britain or Ireland; and if, upon analysis, any parcel of tea shall be found to be mixed with other substances, or "exhausted" by steeping, infusion, decoction, or other means, the Commissioners have power to stop the delivery of the same, or, in case it is declared to be unfit for human food, it shall be forfeited and destroyed, or disposed of in such manner as the Commissioners may direct.

Food Analysis in Portsmouth.—We have received the report of the Public Analyst (Mr. George Turner), presented to the Town Council of the Borough of Portsmouth, for the year ending September 30, 1875. During that period, 145 analyses of articles of food and drink have been made, and in four cases the tradesmen were prosecuted—two milkmen for adulterating milk, and two grocers for selling adulterated butter. The report states that there has been a marked improvement in the purity of the articles collected during the year, especially in the milk and coffee. With the latter article chicory is still used, but when pure coffee was demanded it was supplied, which was rarely the case last year.

Treatment of Leprosy.—During the year, 153 lepers were under treatment, being nearly a half more than in the previous year. We have been trying them with the "Chaulmoogra," a famous Indian remedy, also used by the Chinese. It can be got in the native drug stores, and is by no means expensive. The Chinese use it as an external application to destroy pediculi. The seed, which lies inside a hard shell about the size of a small hazel-nut, is not disagreeable to the taste, its flavour being somewhat like that of a Brazil nut. On my first using it, however, in its naked form, the patients recognised it, and in a body refused to take it, thinking that such a common article, and one that they were in the habit of using for a very different purpose, could not avail for the cure of leprosy. We then disguised it by mixing the bruised seed with boiled rice. This, in large pills or boluses, was readily taken by the patients. The "Chaulmoogra" has given better results than any other medicine we have tried. Almost every one, who was under treatment for any length of time, was benefited by it, and, in the case of some, the improvement was very decided. I cannot say, however, that any have been completely cured. For the hint to try this remedy I was indebted to an old hospital report of Dr. Hobson's, written at Canton twenty years ago. In it he mentions two cases of complete cure following its use. He had been recommended to use it by Dr. Mouat, of the Medical College, Calcutta, who sent him a bag of the seeds to experiment with. Dr. Hobson says, "The Chinese who have any experience of its use, keep it a secret for their own profit." Some time ago, seeing a statement in the *Medical Times and Gazette* of marvellous results following the treatment of leprosy in India with the "Gurjun" or "tree" oil, by Dr. Dougall, we wrote to a friend in Calcutta, where the oil may be had in the native bazaars, for a supply, which is in daily use with encouraging effect. If the benefit from it be as great here as it is said to have been in India, we shall have it in our power to do much good, as in this whole region leprosy is unfortunately exceedingly common.—*Dr. Gauld's Report of the Medical Missionary Hospital at Swatow for* 1874.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

An Appeal.

In consequence of the death of the late Mr. John Samuel Beale, M.R.C.S., who practised as a surgeon at Paddington for nearly thirty years, his widow has been left without any means for her future support.

Some of his medical brethren have therefore determined to raise a fund to enable them to place Mrs. Beale in such a position as will enable her to maintain herself for the future; or to proceed to Canada, where a brother has offered her a home if sufficient money can be raised for her requirements.

Henry Hodson Rugg, Esq., M.R.C.S., 1, Grove-road, St. John's Wood, N.W., and R. Walter Goddard, Esq., M.D., 107, Edgware-road, Paddington, W., have kindly consented to receive subscriptions.

Dr. Drysdale, Port Chalmers.—Letter with enclosure received.

Dr. J. Reed, Pentridge.—Letter with enclosure received.

Mr. J. Tremearne, Creswick.—Letter with enclosure received.

Dr. W. Lee, Washington.—Letter with enclosure received.

Mr. J. Adolphus, Black River.—Letter with enclosure received.

Dr. Steventon, Jamaica.—Letter with enclosure received.

Dr. Sands, New York.—Letter with enclosure received.

*** In Dr. Johnson's Clinical Lecture, the fourth line from the end of the fifth paragraph, *for* "vomiting of bile-tinged urine," *read* "vomiting, bile-tinged urine, and jaundice."

The Wrong Saint.—"January 21—Vaccination introduced 1799; St. Anthony." *Punch* says—"Shouldn't it be St. Jenner?"

M. D. V.—The Guardians of Dover proposed to grant a pension to their former medical officer, after forty years' service, because they considered he was incapacitated for work, and independently of any other consideration; but the Local Government Board disallowed the grant on the ground that he still held a public appointment.

Good Templar.—Excessive drinking prevailed to such an extent in the time of Edgar that he put down many alehouses, suffering only one to be in a village or small town; and he also further ordained that pins or nails should be fastened into the drinking-cups or horns, at stated distances, and whosoever should drink beyond those marks at one draught should be obnoxious to a severe punishment. See Strutt, in Brand's "Observations on Popular Antiquities."

Omega.—The question is a very old one. Plato says, "When the entire sexes are compared together, the female is doubtless the inferior, but in individuals the woman has often the advantage of the man."

Ergo.—"A man's body and his mind, with the utmost reverence to both I speak it, are exactly like a jerkin and a jerkin's lining—rumple the one, you rumple the other."

Frigus.—There is a German proverb to the effect that in Russia you only see the cold, whereas in Germany you feel it,—pointing to the happy effect of constant preparedness against severe cold.

Rusticus.—The story—says Mr. George Henry Lewis, in his "History of Philosophy," fourth edition—of Aristotle having practised medicine during the last years of his Athenian residence, which is founded on his interest in that art, is refuted by his express statement in the work *De Divinatione*, i., 463, that in medicine he was only one of the laity, though accustomed to philosophise upon it.

Sanitas.—Several memorials from various sanitary authorities have recently been forwarded to the Local Government Board, showing the necessity of legislative provision making it compulsory on persons and medical men to give notice to the sanitary officers of the existence of contagious or infectious disease. We hope to see an amendment of the law on this subject carried in the forthcoming session.

Benj. W.—It was named *Digitalis* by Fuchsias ("Plantarum Omnium Nomenclaturæ," 1541), the first author who took notice of its medicinal properties, from the German name *Fingerhut*, a finger-stole.

H. C., Bermondsey.—We have seen the report of an inquest said to have been held in South London, on the body of a young man who swallowed a live mouse and died shortly afterwards "in the most horrible agony," from the tearing and gnawing of the animal after it found its way into the victim's stomach. Although the reporter has descended into the most minute details as to how the extraordinary occurrence took place, he has carefully avoided all reference to such particulars as would enable a credulous person to verify the story. Thus, the name and address of the "unfortunate young man" are never hinted at; neither is the place where the inquest was held or the coroner who presided on the occasion even mentioned. As he informs us that the erratic animal "has been preserved in spirits of wine and has been placed in the museum of the London Hospital," probably the curator of that institution will be able to give some information which will permit of the story being classified either among facts or fictions.

U. S.—It is said the most temperate people of Western Europe are the people of Andalusia and of Xeres. In the East the Turks are the least drunken.

An Assistant.—Nitro-glycerine had its birth in the chemical laboratory of the French professor M. Pelouze, now upwards of twenty-seven years ago.

Louis F.—The water conveyed to Hoddesdon, in Hertfordshire, rises through a fine white sand, and is so pure that Dr. Hales affirmed that it left no incrustation in a boiler which had been in constant use for fifteen years. ("Statistical Essays," ii. 242.)

An Anxious Candidate.—The result has only just been sent in, and cannot be made known until after it has been submitted to the Court. You will have to wait but a little longer.

A Guy's Man.—Why not read our advertising columns, where you will find full information on the subject last week, or write to the Secretary.

Obstetrician.—Mr. Curling, many years ago, in fact soon after his election on the Council of the College of Surgeons, introduced this important subject to his colleagues, and a resolution embodying his views was carried, and a committee formed to report on the best way of including midwifery in the examination for the diploma of member.

Dr. M.—We cannot publish the long account sent. If the cap fits, let him wear it.

"When caps into a crowd are thrown,
What each man fits he calls his own."

Mr. Miller.—The Portugal-street burial-ground, so long known as the Green Ground, was closed under an Act of Parliament for enlarging King's College Hospital. It was crowded to excess with dead bodies, and the exhalations from it caused a fearful amount of disease and death.

Rahere.—Sir James Paget's lecture "On the Progress of Anatomy and its Influence on Surgery" will be found in the *Medical Times* for 1851.

Correction.—On page 720, December 25, 1875, *for* "Professor Schule" *read* "Professor Schuh."

Anti-Vaccinator.—Our attention has been directed to the remarks of "Novocastrian" in the *Northern Daily Express*, on the question whether vaccination does good or harm. None but the most ignorant could have been misled by his wild statements, which scarcely needed the crushing reply of Dr. Reid, of Newbiggin, to expose their fallacy. Common sense is thrown away on such individuals as "Novocastrian," and it only fills them with vanity when an educated person, or a man of science, deigns to notice them.

Bibliopole.—Mr. Dawker, a surgeon of St. Ives, published a pamphlet, "Prodigium Willinghamense," of the surprising boy born at Willingham, Cambridge, and upon whom the following epitaph was written:—"Stop, traveller, and, wondering, know here buried lie the remains of Thomas, son of Thomas and Margaret Hall, who, not one year old, had the signs of manhood; at three, was almost four feet high, endued with uncommon strength, a just proportion of parts, and a stupendous voice; before six he died, as it were, at an advanced age."

Mr. Harris.—The annual election takes place in July. Some years ago, Mr. Cæsar Hawkins, who rarely had credit given to him for liberality by the contemporary mentioned, brought forward in the Council of the College a motion that a list of twelve senior Fellows eligible for seats in the Council should be sent some time before the election to every elector. The election has since been altered.

Dermatologist.—Professor Wilson's lectures, delivered at the College of Surgeons in 1875, have just been published by Messrs. J. and A. Churchill. You will find the case of Anne Louise Lateau fully described in the work; and also the "Gurjun balsam or wood-oil," together with reports of cases illustrating its use.

Dr. J. R.—The word "crucible" was derived from the alchemists having impressed upon the vessel the figure of the cross.

The Injection of Ammonia in Snake-Bite.

A case is reported in the *Melbourne Argus*, which, it is said, conclusively proves the efficacy of Professor Halford's remedy for snake-bites. A boy, fourteen years of age, was bitten by a tiger snake one evening about eight o'clock, and soon showed symptoms of poisoning. He was hurried off to Beechworth, many miles distant, where he arrived about four o'clock on the following morning, and was seen shortly afterwards by Mr. Dobbyn, M.R.C.S., who found the patient "paralysed, pallid about the lips, vomiting, almost pulseless, and nearly comatose." Ammonia was at once injected into the arm, with, it is said, marvellous effect. The colour immediately returned to the lips, the sickness ceased, and the drowsiness disappeared as if by magic. By the afternoon the boy was sufficiently recovered to return home. Such a case as the above doubtless possesses a certain amount of interest, but it scarcely justifies one in saying that it conclusively proves the efficacy of Professor Halford's remedy against the bites of *venomous* snakes. As proved by the India Commission, there are snakes and snakes, and against the bite of some neither Professor Halford's nor any other known remedy has yet proved to be an antidote.

BOOKS AND PAMPHLETS RECEIVED—

Braithwaite's Retrospect of Medicine—Maunder's Surgery of the Arteries—Van Beneden's Animal Parasites and Messmates—Morse's First Book of Zoology—Bentley and Trimen's Medicinal Plants, part 4—Fox's Atlas of Skin Diseases, part 4—Annali di Ottalmologia—Sulla Cura Degl' Infermi Ricoverati nell' Ospedale di S. Spirito negli Anni 1874-1873, del Dott. A. Bianchi.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Edinburgh Medical Journal—The Weathercock of Finsbury-park—Popular Science Review—Monthly Microscopical Journal—Science Gossip—L'Archives Générales de Médecine—Hastings and St. Leonard's Advertiser—British and Foreign Medico-Chirurgical Review—Obstetrical Journal—Indian Medical Gazette—Nautical Magazine—The Ladies' Treasury—Leisure Hour—Sunday at Home—Westminster Review.

COMMUNICATIONS have been received from—

Dr. Edis, London; Mr. E. Fraser, Hull; Dr. J. Wiblin, Southampton; Mr. Williams, Llandudno; Sir J. Bardsley, Manchester; Messrs. Gorham and Jevers, Tunbridge; Mr. Stokes, Nailsworth; Dr. J. Wilmot, Tunbridge Wells; Mr. J. Wilson, Whitby; Mr. R. G. Davey, Walmer; Dr. A. Clark, London; Mr. J. Cresswell, Winchmore-hill; Dr. Stainthorpe, Hexham; Mr. T. Varty, Penrith; Mr. Gill, Croydon; Dr. Harper, Plymouth; Dr. Waters, Liverpool; Dr. F. R. Warren, Kingston, Jamaica; Dr. Lee, Washington, U.S.A.; Mr. Adolphus, Black River; Mr. Fisher, Wigan; Dr. Wilks, Ryde; Dr. Steventon, Jamaica; Dr. D. Campbell, Calne; Dr. Easby, Darlington; Dr. Comegys, Cincinnati; Dr. Sands, New York; Dr. Newton, North Bennington; Mr. H. Taynton, London; Dr. Stirton, Glasgow; Mrs. Atkins, London; Dr. R. Bowen, Rochester; Major Phillips, London; Mr. T. M. Ashton, Burscough; Mr. J. H. Wells, Nailsworth; Dr. Priest, Toledo; Dr. Drysdale, Port Chalmers; Mr. Hamilton Peevor, London; Mr. Henry Morris, London; Dr. J. Warrington Haward, London; Dr. Cockle, London; Mr. W. E. Poole, London; Mr. J. Chatto, London; Dr. Tidmas, Sutton Bonnington; Dr. Symes, Kingstown; Dr. Mease, Cavan; Dr. Leet, Rathmines; Mr. Ley, Prestwich; Dr. J. Todd, Newtonstewart; Dr. Andrew, Launceston; Dr. W. Shepherd, Dunning; Mr. A. Davidson, Liverpool; Dr. A. Marshall, Kilmarnock; Messrs. D. and D. Pearson, Kirkcaldy; The Registrar-General, Edinburgh; The Honorary Secretary of the Medical Society of London; Inquirer; Secretary of the Clinical Society, London; Dr. R. B. Taylor, Santillana.

APPOINTMENTS FOR THE WEEK.

January 8. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

10. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Adjourned Discussion on Dr. Lauder Brunton's paper "On the Physiological Action of Alcohol."

11. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m. Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Moss, "On Pathological Absorption-Spectra." Mr. H. T. Butlin, "On the Minute Anatomy of Two Breasts, the Areolæ of which had been the seat of long-standing Eczema." Mr. G. Gaskoin, "On the Etiology of Skin Disease."

12. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society (Meeting of Council, 8 p.m.), 8½ p.m. Dr. Cohall (of Bagdad), "The Report on Plague."

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Prof. Wanklyn, "On Milk Analysis from a Physiological Point of View."

13. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

14. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Annual Meeting. Dr. T. S. Dowse, "On a Case of Thrombosis of Cavernous Sinus; Sudden Loss of Vision; Hæmorrhage into Anterior Lobe." Mr. Venning, "On a Case of Congenital Tumour." Mr. C. Heath, "On a Case of Gun-shot Wound of the Arm, dividing the Brachial Artery and the Median Nerve."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 1, 1876.

BIRTHS.

Births of Boys, 1247; Girls, 1247; Total, 2494.
Average of 10 corresponding years 1865-74, 1949·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	848	934	1782
Average of the ten years 1865-74	816·7	822·3	1639·0
Average corrected to increased population ...	...	...	1754
Deaths of people aged 80 and upwards ...	...	...	61

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	16	13	7	9	...	1	...	4
North	751729	...	14	12	6	19	1	6	2	3
Central ...	334369	...	6	6	...	4	...	3	...	1
East	639111	...	14	13	...	15	...	1	...	2
South	967692	...	20	31	3	29	...	3	3	6
Total	3254260	...	70	75	16	76	1	14	5	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·142 in.
Mean temperature	43·1°
Highest point of thermometer	47·6°
Lowest point of thermometer	33·0°
Mean dew-point temperature	40·1°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 1, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1875.*	Persons to an Acre. (1875.)	Births Registered during the week ending Jan. 1.	Deaths Registered during the week ending Jan. 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3445160	45·7	2494	1782	47·6	33·0	43·1	6·17	0·17	0·43
Portsmouth ...	122632	27·3	85	55	...	...	...	...	...	...
Norwich	82842	11·1	46	36	48·0	35·0	42·0	5·56	0·10	0·25
Bristol	196186	44·1	137	114	50·7	37·5	43·5	6·39	0·53	1·35
Wolverhampton ...	71718	21·1	61	31	48·0	32·5	42·3	5·73	0·65	1·65
Birmingham ...	366325	43·6	353	185	50·0	33·0	43·0	6·11	0·38	0·97
Leicester	109830	34·3	85	53	47·5	30·0	41·3	5·17	0·25	0·63
Nottingham ...	92251	46·2	85	40	47·1	35·1	41·7	5·39	0·32	0·81
Liverpool	516063	99·1	412	294	51·3	29·7	44·3	6·84	0·25	0·63
Manchester ...	356626	83·1	285	224	...	...	...	...	...	...
Salford	135720	26·3	121	85	48·9	35·8	42·9	6·06	0·21	0·53
Oldham	87437	18·7	84	66	...	...	...	...	...	...
Bradford	168305	23·3	134	79	49·6	40·0	45·1	7·28	0·09	0·23
Leeds	285118	13·2	242	119	50·0	40·0	45·1	7·28	0·05	0·13
Sheffield	267881	13·6	241	133	55·6	34·5	44·1	6·73	0·26	0·66
Hull	133932	36·8	102	92	49·0	37·0	43·3	6·28	0·10	0·25
Sunderland ...	106342	32·2	92	40	54·0	38·0	44·3	6·84	0·09	0·23
Newcastle-on-Tyne	137665	25·6	145	72	...	...	...	...	...	...
Edinburgh	211626	50·5	130	89	...	...	...	...	...	...
Glasgow	534564	88·6	413	263	50·0	35·4	44·1	6·73	...	...
Dublin	314666	31·3	196	200	54·0	25·6	45·0	7·22	0·22	0·56
Total of 21 Towns in United Kingdm	7742889	37·0	5943	4052	55·6	25·6	43·4	6·33	0·24	0·61

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·14 in. The highest was 30·36 in. on Tuesday morning, and the lowest 29·81 in. on Saturday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1875 by the addition of four years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

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Lecture I.—Personal Identity.

(*Concluded from page* 28.)

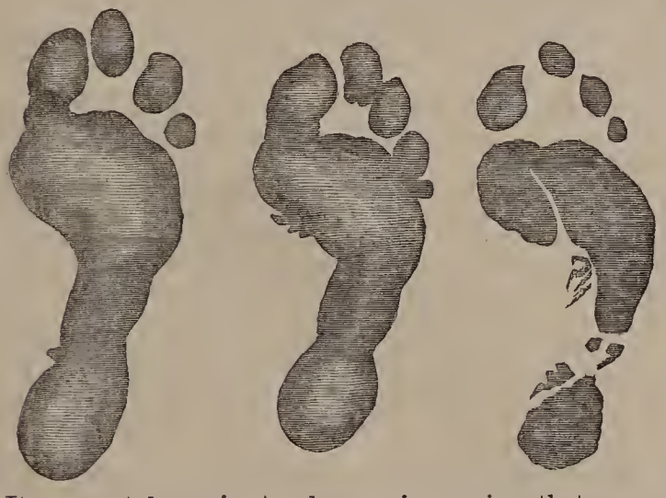
One other point connected with identification has likewise attracted attention: the impression left by the *naked* foot on the floor of an apartment when covered with blood. The result of the attention which has been given to this subject is, however, that such impressions can only lead to the identification of a suspected criminal when the conformation of the foot or toes of the party has been so peculiar as to have left traces of such peculiarity on the stain.(a)

Nothing in such a case could be accurately determined from the size of the stain, as only a part, and not the whole of the foot, would have been in contact with the ground. It might be useful, however, to preserve a stain of this kind for future reference; as in the case of the boarding of a wooden floor, which could be taken up at the stained part and its identity secured.

The conclusions of our continental brethren seemed to have been overlooked or ignored by our own jurists on the occasion of a remarkable trial in Glasgow in 1862. In this instance impressions from the foot of a woman (Maclachlan) on trial for the murder were compared with others from the floor left by the victim, and also with impressions from the feet of an old man (Fleming) on whom the crime was attempted to be shifted by the defence.

To demonstrate the futility of trusting to such evidence, I set on foot some experiments at the time, the results of which I show you. You will observe on the paper the varying sizes of the different impressions of the foot of the same person, previously stained with wet paint, produced by the difference in the mode of bringing down his foot—first, in a rapid progression; secondly, by standing; and thirdly, by slow advance (*vide* Fig. 1).

Fig. 1.



It may not be amiss to observe, in passing, that a good impression of a shoe or boot may be obtained, occasionally, in circumstances scarcely to have been expected. Thus, in the case of George Stephen, apprehended for the suspected murder of a woman in a wood near Kintore, in 1864, it was found that the man had left the wood, after the fatal blow with an axe on the head of his victim, by leaping over a low wall and landing on a spot covered with rank grass. As the soil at this place was soft from recent rains, the impression of Stephen's shoe was easily obtained by plaster of Paris, as now shown you.(b)

We now come to consider the medico-legal points bearing on the question of identity *after death*. It becomes necessary occasionally to identify the dead, in cases of murders, accidental, or sudden death, poisoning, etc.,—cases which not unfrequently present themselves under very embarrassing circumstances.

There is no period after death at which this investigation ceases to be requisite, or at which it can be declined by the medical jurist as unnecessary. We shall therefore have to advert to the identification of the dead,—

1st. Immediately after death, and previously to the commencement of putrefaction in the dead body.

2nd. After decomposition has begun in it, and before the soft parts have disappeared, or previously to the completion of the process of putrefaction.

3rd. Where the body has been previously mutilated, or where fragments of it only are found; and

4th. After the body has been reduced to the state of a mere skeleton.

1st. Of the identification of the body soon after death and before the commencement of putrefaction.—We need scarcely remind you of the changes the features undergo soon after death, in any case, at periods varying from a few hours up to some days, according to circumstances. No one can have been present at the post-mortem inspection of a person whom he had attended or known during life, but must have been struck with this. The change is much more striking when the examination takes place under circumstances which otherwise yield no assistance to the ready recognition of the party. Thus, in the summer of the year 1831, the body of a boy of fourteen years was discovered in a stable attached to the dwelling-house of a medical man in town (Aberdeen). It was enclosed in a sack, with a rope about the neck, and the sack wet as if newly taken out of water. A clamour having got up about his having been "burked," I was sent to make a judicial inspection of the body. From the appearances on dissection, I had no hesitation in reporting that the boy had died from natural causes, and that his death had been from extensive disease of the knee and hip joints. It was afterwards discovered that the body had been disinterred from the churchyard of Banchory Devenick, and that, enclosed in the sack, it had been dragged through the Dee, opposite the churchyard, at the stern of a boat. What I would notice in this case is the circumstance that this boy had been my own patient in the Boys' Hospital from February 19 to May 9 of the same year, and had only been in the country for five or six weeks before his death, and yet, so altered were his features, and not having heard of his death, that I had not the slightest idea at the time of the inspection of having ever seen the boy before.

The following occurrence took place when I was a student here. The details I give from memory. A medical student of the name of Downie, who died about two years afterwards, had, in company with some others, disinterred a body from the churchyard of Newhills. On the night after that of the disinterment they were bringing it to town from a place where it had been temporarily concealed near Donmouth. They had scarcely, however, moved from the spot when the coastguard suddenly came upon them. Downie's companions fled, leaving him with the body, which he attempted to defend; but he was overpowered and captured. The coastguard brought the body to town with their prisoner, whom they lodged in gaol. A day or two after this, the wife and sons of a weaver in the Spital, who had been some days a-missing, came forward and claimed the body as that of their relative; but as this person had been in health at the time of his disappearance, and as no reason was known for his absence, the relatives of the weaver (who had, moreover, sworn positively to the identity) accused Downie of having enticed him away and murdered him. Downie now, seeing the serious nature of the charge thus preferred against him, found it necessary for him to state where he had actually procured the body in question. A party was then sent out to Newhills to search the grave there, which they found empty. But here a new difficulty arose: the relatives of the Newhills dead person, when shown the body, offered to make oath to it, while the Spital people refused to acknowledge their mistake. At this stage of the proceedings, however, the case assumed a new aspect. The Spital weaver reappeared in life; but so incredulous were the people of old Aberdeen that he had to be paraded through the streets to satisfy them; and many even then would scarcely believe the evidence of their senses, but insisted that it was only a figure dressed up in the weaver's clothes that was shown them. Downie was tried for the violation of the churchyard of Newhills, and fined heavily.

(a) *Annales d'Hygiène*, vol. I. second series, page 45.

(b) From some legal points of interest bearing on insanity, which came out on the subsequent trial, an outline of the case was published in the *Edinburgh Medical Journal* for July, 1865, by Dr. Silver, of Charing-cross Hospital, who was engaged in the precognition and trial.

In the *Edinburgh Monthly Journal* of February, 1854, Dr. Kinloch, of Park, has related a case of mistaken identity under the following circumstances:—The body of an old man was found on the banks of the Dee at Drumoak. The left ear and the first finger of the left hand were wanting, the mutilation being apparently of long standing. Two young women claimed the body as that of their father, who had been in the habit of leaving home for weeks at a time, and who had lost his left ear and left forefinger. On the return of the daughters and friends of the supposed party from his funeral, the boatman of a ferry which they had to cross asked them for whom they were in mourning, and on receiving their answer, laughingly informed them that he had only half an hour before ferried their father across alive and well, which, on reaching home, they found to be true. Whose the body was which they had interred has not been discovered.

2. The dead body may require to be identified after the commencement of decomposition of the soft parts. In cases of this sort medical men are obviously the only persons qualified to assist in establishing the identity.

The subject of the changes undergone by the body after death during the several stages of its decomposition is one which will have to be discussed in detail afterwards in another connexion. Meantime it will only be necessary to observe here that some striking instances have occurred in which, contrary to what is usual, even the features have been known to escape alteration for long periods, so as to be still recognisable. Thus, the remains of Hampden were supposed to have been identified in Buckinghamshire in 1828, and the body was said to have been at the time in a high state of preservation;(c) and in 1813 the coffin of Charles I. was opened in St. George's Chapel, Windsor, in presence of Sir Henry Halford, who states that, on removing the cerecloth, the complexion of the skin was observed to be dark and discoloured. He adds that the forehead and temples had lost little or nothing of their muscular substance; the cartilage of the nose was gone; but the left eye, in the first moment of exposure, was open and full, though it vanished almost immediately. After describing the pointed beard, the oval face, and the teeth (which were all characteristic), he sums up:—The countenance, in short, notwithstanding its disfigurement, bore a strong resemblance to the coins, the busts, and especially to the pictures of Charles I. by Vandyke.(d)

Further, we may remark here that though there can be no doubt of the occasional, though certainly extremely rare, occurrence of such instances as the above, the difficulty of identifying the dead body after the commencement of decomposition is extremely great.

In a trial which took place in Edinburgh in 1823 of resurrectionists for stealing dead bodies, one of these was sworn to by a witness to be that of his sister, which he knew by a decrepitude and certain marks which characterised the person of the deceased. On the ground of the change wrought by putrefaction (the body having been interred nine weeks before the recognition took place) it was attempted to throw a doubt over this statement, and medical men were called on for their opinion. The late Dr. Barclay, who was examined for the defenders, stated that the longest period that he ever knew during which the features remained recognisable was a fortnight, in the instance of a Lascar. He mentioned in evidence that an instance had occurred the previous winter in which some friends of a lame person, understanding that the body had been brought to his rooms, came to claim it. Dr. Barclay ordered it to be delivered up, but Dr. Thatcher, his assistant, caused an artificial subject made of leather to be set before the applicants, and they claimed this instead of the real subject.

Occasionally bodies are found to mummify naturally, when the identification cannot be made out. The specimen before you was examined in the dead-house last winter (1874). It had been found in a servant's trunk in an outhouse, and led to an inquiry by the law authorities. From its dry and shrivelled condition the sex could not be determined, while from the bulk of the bones and the ossification of the intra-condyloid portions of the femurs, the only point which admitted of settlement was its being a child born at or near the ninth month of its mother's pregnancy.

A similar natural mummy was found in pulling down a dry stone wall in the country a few years ago, where nothing but a slight leathery coating covered the bones.

(c) *Medical Gazette*, vol. xix. page 212.
(d) *Ibid.*, page 212.

Professor Maschka, of Prague, when lecturing on this subject, shows the body of a child, which he has kept for many years exposed to the air, in a wonderful state of preservation. The fluid parts of the body seem to have evaporated, leaving the hard parts somewhat dry and shrunken. The skin is pale, but otherwise natural; the eyes gone. But the form is perfectly preserved, so that the length, position of the navel, and the sex can be quite well made out.

3rd. The question of identity may have to be settled after the body has been mutilated, or where fragments of it only have been found.

A curious case of this kind was communicated to me by a legal gentleman who was agent for the defence. An idiot boy in Aberdeen, who died about sixty years ago, was disinterred for dissection by some medical students. After a considerable portion of the body, including the face, had been dissected, it was discovered by his relatives that the body had been carried off from the churchyard, and, a search having been instituted, it was traced to the custody of the students. They were accordingly brought to trial. The body of the boy, when found on the dissecting-table, was so disfigured that there was only one means left of proving its identity. The boy had had a whim during life of permitting his nails to grow, and had not allowed them to be cut for many years previous to his death. They had, consequently, curled round the tips of his fingers and toes, till they had thus come to extend along the palmar and plantar surfaces in a strange way. The counsel for the prosecution availed himself of the knowledge of this fact, and his proof seemed to be complete, when a late shrewd and intelligent member of the profession came forward, and gave in evidence that it was not an unusual circumstance for the nails to grow *several inches* after death! This astounding statement so nonplussed the judge that the case was allowed to drop as not proven.

In the case of some resurrectionists tried at Edinburgh, several years ago, for stealing from a churchyard the body of a lady, which was not traced to the dissecting-room till a great part of the corpse was destroyed, the body in question was identified by a dentist, who produced a cast of the gums which he had taken before her death.(e)

A still more striking case of identification by a person of the same profession occurred in the American case of Dr. Parkman. An attempt had been made in this instance to consume the head by fire in an assay furnace, but a set of mineral teeth remained, though the gold plate in which they had been fixed had been melted; and by an examination of these teeth a dentist recognised them as of his own manufacture, and as those which he had supplied to the murdered gentleman.

The following is one of the many foreign cases that might be quoted of the identification by the profession of mutilated bodies:—

On November 18, 1814, Auguste Danton was assassinated by his own brother. On the day following some boatmen found in the Seine a human head wrapped in a dishclout, in the corners of which were the letters A. D.; other portions of the victim, with two entire thighs and legs, were discovered on the same day near a public *fosse d'aisance*. It became of importance to ascertain if the person thus discovered were actually Danton, and as that individual had been lame it was necessary to demonstrate that one limb was shorter than the other, which could not readily be known from the appearance of the fragments.

The examiners, of whom the celebrated Dupuytren was one, after describing the height, the complexion, the colour of the hair, the teeth, the wounds present, and the existence of a wart on the face, carefully inspected the lower extremities, and especially the bones and soft parts entering into the formation of the hip-joints, from which they were led to draw the following conclusions:—

1. That the man examined must have had, when a child, disease of the hip-joints.

2. That this disease, although at a remote period, and cured, must have left a remarkable degree of deformity of the hips and pelvis; must have led to difficult progression, and probably lameness; and certainly a painful and disagreeable waddling of the body on the lower limbs. An exact comparison of the two limbs in regard to their length, and an examination of the soles of the feet, led them to believe that the right lower extremity was shorter than the left, and that the

(e) "Cyclopædia of Medicine," vol. ii. page 590.

individual must have supported the weight of the body in progression and in standing on the ball of the toes, not on the whole sole.(f)

The case of Greenacre in London deserves to be noticed. In 1837, the trunk of a woman was discovered in a sack, the head and legs of which were wanting. The person who examined this mutilated body could find nothing to serve for its identity but a malformation of the uterus, the mark of a ring on one finger, and the horny cuticle of one who had been engaged in household work. The bloodless state of the body, however, pointed to the mutilation having been effected before the corpse had cooled. The head, when afterwards found at a different place, exhibited the profile peculiar to the lower order of Irish. The lower extremities, when discovered at a still later period, exhibited as their sole peculiarity a dyeing of the skin over the legs as from the wearing of black stockings. The sections of the bones of the thighs and neck, when compared, were found exactly to correspond. This examination assisted the detection of the murderer when subsequently arrested on suspicion.

In November, 1857, the public in London were kept in a state of high excitement for some weeks by the discovery in a basket, on one of the bridges, of parts of a body, which the utmost activity of the police failed to identify, while no clue was obtained to the party or parties who had exposed it, and in which the greatest care had been taken prior to its exposure to destroy all traces of its identity. But here, though the head was wanting, as well as the greater part of the spine, the hands and feet, portions of the left side of the chest, the whole of the viscera of the chest and abdomen and pelvis, and most of the muscles, Dr. Taylor clearly made out the sex from the bones, and from a portion of the corpus cavernosum of one side left attached to the ischium; as also the probable age of the party; his height; the colour of his skin and that of his hair—these last from a fragment of skin left on the wrists and on one knee—and the date of his death approximatively. He also showed that the mutilation must have taken place while cadaveric rigidity continued in the body—*i.e.*, from eighteen to twenty-four hours after death; that the individual had received a wound in the left side of the chest, over the site of the heart, while alive or only recently dead; that after death the limbs had been in the distorted state usual in cases of violent death; and that the muscles had been exposed to boiling water and afterwards salted.(g)

It now only remains for us to notice, fourthly, that we may be required to identify the dead body after it has come to be reduced to a mere skeleton.

Trials at long periods after death, and when nothing but the bones remain, are not unusual on the Continent, and cases of this sort occasionally occur in this country.

In 1759, Eugene Aram, the famous scholar, was tried, condemned, and executed, for a murder committed fifteen years before, chiefly on the evidence of the skeleton, found in a cave, with the skull beaten inwards.

In a case investigated by MM. Laurent, Noble, and Vitry, at Versailles, in 1828, the bones of a man who had been murdered, and had been buried for three years, were identified by noticing a malformation which must have produced a certain degree of lameness.(h)

In such instances as these, when only the bones remain, unless some peculiarity exists in the skeleton such as those just referred to, or when there are indications of injuries inflicted on them during life, the only data we can furnish towards their identification must obviously rest on the approximations we can obtain as to the age and sex of the suspected party, on the principles to be laid down under Age and Sex.

It may not be out of place here to advert to a question put to me, in connexion with a criminal case, as to the earliest period of fœtal life at which the buried remains might be sought for, with the chance of finding them, where the exact spot of sepulture was known. The answer obviously was that they can scarcely be looked for too soon. I show you the skeleton of a fœtus, about the middle of the sixth month, disinterred and separated from a mass of earth by putting the whole into a large sieve, and pouring water in repeated bucketsful over it. Scarcely a bone is wanting; even the bones of the middle ear were recovered.

(f) Orfila, vol i. page 83.
(g) *Medical Times and Gazette*, October 31, 1857.
(h) *Medical Gazette*, vol. xix. page 213.

In the autumn of 1862 I had also occasion to examine the mutilated remains of an infant, born in the eighth month, consisting of bones of the left arm, left side of the chest and abdomen, and the left thigh and leg, kept together by the integuments, along with some of the bones of the head and face, and the right ulna and femur, partly acted on by fire. The other parts of the infant were believed to have been destroyed in the fire by the father of the child, an illegitimate birth. I have merely to add on this point that the medical examiner will occasionally be expected to discriminate readily between the bones of lower animals and those of man, whether when found together or separately.

An interesting case of the former kind is given by Tardieu in the *Annales d'Hygiène*, tome xx., page 114, from a Roman case.

An instance of the latter is placed before you, which is so far interesting as that, had it not been found that the bones were entirely those of a sheep, it might have given rise to some curious conjectures and suspicions. Last November these mutilated and partly charred bones were found under the hearth of a house in town (Aberdeen), which had been occupied by a woman Humphrey, who was executed, in 1824, for the murder of her husband by pouring vitriol (H_2SO_4) down his throat while drunk in bed.

I have now laid before you the various circumstances under which the question of identity may be brought under your notice. As, both in the dead and the living body, each individual case has its own peculiarities, it has been necessary to illustrate the subject by actual cases, no other course being open to us. As in most of the illustrations the narrative has included the prominent points to be attended to in such investigations, we have been spared the necessity of much general remark. I shall, however, in conclusion, give a comprehensive view of those general principles which are applicable to the cases that are apt to arise in medico-legal practice.

These deal with either general or special physical appearances, *i.e.*, applicable to the whole of these cases, or limited to only a portion of such inquiries; but all or many which are applicable as well to the living as to the dead.

Such physical appearances—following Orfila—we may sum up as follows:—

Attention has to be directed—

1. To the *age* of the individual, or the nearest approximation to it which can be obtained.
2. The *height*.
3. The *head*, and especially the shape of the bones; the hairs, their number and colour; the forehead, which may be prominent or compressed; the eyebrows, which may be far apart or may meet at their inner extremities; the eyes, whether large or small, prominent or sunken; the nose, which may be short, long, etc.; the lips, large or small, with or without trace of cicatrices; the teeth, few in number, irregularly placed, small, or *vice versâ*; the mouth, large or small; the chin, full or pitted, round or pointed; the beard, thin or bushy; the face, broad or long.
4. The *neck*, whether short and thick, or long and thin.
5. The *chest*, whether well-formed or otherwise; the shoulders, whether high or the reverse; the sternum, whether flat, sunk, or prominent.
6. The *pelvis*, whether large or small.
7. The *limbs*, including the hands and feet, whether large or small; the fingers, whether short or long, or of mutually proportionate lengths; the knees, if turned in; the ankles, whether more projecting than usual; the lower limbs and feet, whether of equal length on both sides, or free or not from deformity.
8. The *genitals*, if free from defects of conformation.
9. Whether or not any *maternal marks* exist on the skin, these marks being indelible, while warts or other analogous tumours may be removed by caustics.
10. *Cicatrices*, which may have followed burns, wounds, or the spontaneous evacuation of tumours—marks which never become effaced, and which may sometimes, from their seat, their form, their direction and extent, etc., afford valuable indications.
11. Traces of *dislocations* or *fractures*.(i) Of these characteristics, those upon which Orfila lays most stress are the four following:—The height; the state of the bones, and form of the skeleton; the state of the teeth; and, lastly, the hair.

(i) Orfila, vol. i., page 99.

LECTURES ON INJURIES TO THE HEAD.

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Lecture VI.

(*Continued from page* 30.)

ON CONCUSSION OR SHAKE OF BRAIN.

I have endeavoured in the preceding remarks to consider concussion as it occurs simply as the result of shake of the brain, and without complications; and there can, I think, be no doubt that the conditions described may be caused by shake alone, and without any appreciable lesion. It is of great importance to ascertain accurately to what extent simple concussion may go in the production of cerebral symptoms, for the condition of concussion is one element, and possibly a very important one, in all severe injuries to the head. The question has often been asked, Can concussion alone—that is, without appreciable lesions—destroy life? Respecting several cases which are on record, and which were believed to prove that life might be almost instantaneously destroyed by shake of the brain without the production of any discoverable injury either to the skull or its contents, we must admit that recent investigations have shown that they are, to say the least, quite inconclusive. On this point I may refer to Mr. Prescott Hewett's excellent article in the "System of Surgery." There still remain, however, a large number of cases in which death has ensued within a short period after violence to the head, and in which slight evidences of local injury have been discovered. In many, these evidences of injury have been far too slight in themselves to admit of their being considered as of any material importance in respect to the result. A few minute specks of extravasated blood, a slight fissure in some part of the cranium, are sufficient to prevent our being able to say that the case was one of concussion simply; but surely they are not sufficient in themselves to be supposed capable of really influencing the result? Such lesions are often found in cases in which scarcely any brain symptoms have been present, and in which the patients died in consequence of other disease. I well recollect the case of a boy who died from the consequences of osteitis, and in whom, with the exception of irritability of manner, no special head-symptoms had been noticed during the first few days, yet at the autopsy two or three small but very distinct blood-clots were found in the right crus cerebri. Had it not been for the inflammation of the bone he would have recovered, and the existence of these lesions would never have been discovered.

Mr. Prescott Hewett has also recorded two interesting cases illustrating this same fact. Is it not probable, therefore, in cases in which but slight evidences of injury are found after death, that the patient died, not in consequence of these, but of the general shake of the whole cerebral mass? It is admitted that, even in slight cases, concussion is sufficient to cause alarming symptoms; and ought we not rather to consider slight lesions as proofs that the shake has been violent, than as being in themselves of much importance? Very arbitrary attempts at subdivision and classification of cases have been made, and a recent very able author has even insisted that ecchymoses in the brain ought to be considered as the results of contusion, rather than of concussion; but surely, to draw any distinction, other than that of degree, between concussion and contusion of the brain, is to play upon words, and to introduce distinctions where there is no real difference. If the brain be violently shaken within its closely fitting bony case, it cannot fail to be contused, and whether the contusion may go so far as the production of ecchymosis, or may stop short of it, is only a question of degree. We must clearly keep in mind that the effect of concussion, as mere shaking, will vary with the amount of violence applied, and that it must necessarily affect in greater or less degree the whole cranial contents. When, therefore, we have proof that one part of the brain has been most severely contused, it follows that all the rest must have been most severely shaken; and, since we have proved that a slight shake is competent to the production of serious symptoms, we may fairly allege, in any case in which a most severe shake and a severe contusion have simultaneously occurred, that the shake is in all probability the more important factor.

In a large majority of cases of simple fracture of the skull, the fracture consists in a mere fissure of the bone without perceptible displacement, without extravasation of blood, and without any laceration of the dura mater. This remark applies as well to fractures of the base of the skull as to those of the vault. Fissure-fractures without displacement are the rule; fractures with laceration of the dura mater are very exceptional. Now, such injuries to the cranial bones cannot be supposed to be in themselves of serious consequence. No motion whatever is usually possible; in many instances it needs the keenest scrutiny to discover that a fracture has taken place. When such a fracture is found, we ought to regard it rather as proof of the violence of the blow than as being in itself a dangerous injury. The real danger undoubtedly consists in the shake and contusions which the cranial contents have incurred, not in the trifling damage to the cranial walls. It will probably be very long before any satisfactory instances of death from concussion without lesions are put on record, for the simple reason that lesions always occur if the concussion be severe; and it is only when the concussion is severe that fatal consequences are at all likely to follow. Again, I must repeat that the majority of the lesions which we meet with are rather to be regarded as denoting the violence of the shake, than as in themselves dangerous. To attempt to classify injuries to the head by specifying some single lesion which has been discovered in each—such as fractures of the base, simple fractures of the vault, contusion of the brain, etc.—is surely most arbitrary, and can lead to no useful end. A case does not cease to be one of concussion because at the time of the blow a linear crack in the cranial wall occurred. And since, in all these cases, the concussion element is the most important, a far more practical scheme of classification would be one which should take clear cognisance of this fact.

There are certain fractures of the base of the skull—those, for instance, caused by punctures, and those of the petrous bone, in which communication is opened in a circuitous manner with the external air—to which the special dangers of compound fractures belong. With these exceptions, however, all examples of fracture of the base ought to be considered as essentially cases of concussion. In some cases—those, for instance, in which the dura mater has given way, and considerable displacement of the bone has occurred—the complication is an important one. To these, perhaps, some such term as "internal compound fractures" might be applicable. In the majority, however, where neither has the dura mater been torn, nor the ear-cavities opened into, the complication of fractured base is an unimportant one. It is probable that cases of recovery after such fractures are of very frequent occurrence. That fissure-fractures of the vault, when simple and without contusion of bone, are also unimportant complications as regards their own dangers, it is scarcely necessary to add.

If the reasoning which I have adopted be admitted, it follows that concussion of the brain is a very frequent cause of death; and it becomes of interest to inquire how, in such cases, the fatal event is brought about.

Now and then, death may possibly occur in the primary collapse consequent on the severe shock and its influence on the functions of circulation and respiration. Of this I have no instance to adduce. In certain other cases, although the pulse has rallied and the surface has becomes quite warm, yet death ensues within a few hours without any clearly assignable cause.

In a few there occurs, in a few hours or it may be a day or two after the injury, a relapse; and a form of collapse returns, which is characterised by a quick pulse, cold extremities, and increasing insensibility.

It is possible that in some death may occur from too violent reaction, or rather, as has been explained, from the too complete paralysis of the vaso-motor nerves permitting intonse passive congestion of the brain. During this condition of passive congestion, epilepsy may occur, or the patient may pass from a state of intense drowsiness into one of absolute coma. Of this occurrence I have no example to adduce. With the exception of the two cases just mentioned, in all those in my series in which death after concussion followed quickly, serious lacerations of the brain were found. It is impossible to separate the effects of these lacerations from those due to the severe shake which the other parts of the brain must have received. It may be noted, however, that the symptoms produced were exactly similar to those of concussion in other cases. In many of these cases of severe laceration of the brain, embarrassment of respiration and pulmonary congestion precede death, and should the patient live long enough it is very common to see pneumonia developed. When it is so we

ought probably to suspect that some damage to the pneumogastric nerves or their nuclei has occurred.

The investigation of the treatment of the states of brain which result from concussion becomes of the greatest importance if we clearly comprehend that these states exist and require our management in almost all severe injuries to the head. For the reasons above given, it is impossible that we should limit ourselves in this investigation to the consideration of uncomplicated cases. If the case is wholly uncomplicated, it is, as a direct consequence, a comparatively mild one. If the concussion have been really severe, complications, though perhaps relatively unimportant, will have been caused. We must therefore consider, in dealing with these cases, two principal points—first, what measures will best conduce to the restoration of the equilibrium of a violently disturbed circulation; and, secondly, what measures will most favour the reparation of contusions of the cerebral substance. In almost all cases of any degree of severity these two conditions will be present—a state of imperfect paralysis of arteries, intestinal tube, and secreting glands and contusions (general or local) of the brain, as the cause of this paralysis. As regards the temporarily diminished activity of the secreting glands and of the intestinal tube, they are of little consequence, and may be left out of the question. The paresis of the bloodvessels is of much more consequence, seeing that it permits the shaken brain to be deluged with blood in great excess, and may perhaps in itself constitute a source of dangerous congestion.

In the drawing which I now show you we have an illustration of the condition of the pia mater in a case in which probably the bloodvessels were wholly paralysed.

(To be continued.)

ORIGINAL COMMUNICATIONS.

A FORM OF

IRIDECTOMY APPLICABLE TO CASES OF SYMPATHETIC OPHTHALMIA.

By J. R. WOLFE, M.D., F.R.C.S.E.,

Surgeon to the Glasgow Ophthalmic Institution, and Lecturer in the Andersonian University, Glasgow.

It is generally admitted as an established fact, that when an injury has been inflicted on one eye, loss of vision of the uninjured eye is almost sure to follow sympathetically, unless prompt measures be adopted to guard against that danger. Yet, although the principle be assented to in theory, it would seem as if in practice it were entirely neglected—at least, if we are to judge by the number of incurable blind who present themselves, owing their misfortunes to sympathetic inflammation.

The accidents which give rise to that affection may be arranged in the order of their gravity, as they occurred in the numerous cases in my own practice (which, indeed, form the only basis of this communication), as follows:—

1. Foreign bodies penetrating the eyeball and lodging in the ciliary region.

2. Wounds of the sclerotic, when some of the ciliary nerves are implicated in the cicatrix.

3. Dislocation of the lens into the ciliary region, where it acts the part of a foreign body. In these accidents the inflammation invades the uninjured eye shortly after injury.

To these may be added—

4. Foreign bodies impacted in the sclerotic near the optic nerve.

5. Any injury to the inner structures of the eye causing protracted inflammation.

In these the sound eye may escape for a time, but may ultimately be involved.

The sympathetic action seems to be set up chiefly through the agency of the fifth nerve, either alone or in conjunction with the sympathetic; although in some cases the optic nerve seems to be the channel of the morbid impression.

With regard to the fifth nerve, which is the nerve of sensation and nutrition of the eyeball, the irritation of it by a foreign body is of itself quite sufficient to account for the reflex phenomena in the other eye. Claude Bernard, in his demonstration of the action of strychnine on the posterior column of the spinal cord, proved that a sensory nerve may, independently of absorption, convey the irritation to the nerve-centres, whence it may be reflected to any other part of the nervous system. After separating the hinder leg from the body of a frog, leaving it attached only by the sciatic nerve, he dipped the separated leg into a solution of strychnine. The animal did not manifest any signs of pain for half an hour, but after that time symptoms of poisoning invaded the whole body. During the period, therefore, which elapsed between the immersion into the poison and the accession of the toxic effects, there was a period of quiescence, independent of consciousness. The phenomena of traumatic tetanus, where a long interval passes between the infliction of the injury and the invasion of the tetanic spasms, point in the same direction—namely, that the sensitive nerves, even in the cerebro-spinal system, have the property of transmitting to the brain sensations which, although they escape our cognisance, may play an important part in pathology; for, when a nerve has once been put in a pathological condition, this condition is transmissible from the periphery to the centre, and capable of further generalising itself. In the ciliary regions the branches which come from the fifth nerve cannot be separated from those which come from the sympathetic,—they interlace; hence, we must regard them as both participating in the lesion, and conveying centripetal morbid sensations, which central neuropathy is ultimately reflected to the other eye. Similar phenomena are not uncommon in our clinical experience; a carious tooth, unsuspected of any mischief, does sometimes give rise to keratitis or cyclitis of the opposite side. I have only one case to show that the optic nerve cannot be left entirely out of view in the study of this affection; but this case is deserving of consideration, as will be seen in the sequel.

When a patient presents himself with an eye the subject of any of the injuries mentioned above, as soon as it becomes evident that this eye can never recover sight, our attention must then be turned to secure the safety of the other eye. As we are not sure how soon sympathetic inflammation may set in, the sooner the damaged eye is removed, the less risk we run of incurring danger. This is invariably my practice. I have shown elsewhere(a) the variety of injured eyes which were formerly considered as incurable, and which we turn to useful organs of vision; but in the case of such accidents as those under consideration, a clear perception of danger from the appearance of the different structures, and prompt action (in some cases moral courage also) are essentially requisite. It is necessary, in short, to remove the injured eye without delay. The operation itself is so free of risk (in our hospital, patients, after removal of the eyeball, are usually not more than twenty-four hours in bed, and are generally dismissed on the third day) that this scarcely forms an element in the calculation; and as the injured eye will in the long run shrink, but only after protracted suffering, our choice really lies between a large stump with prolonged pain and risk of destruction of the other eye, and a small stump with little pain and complete immunity from danger.

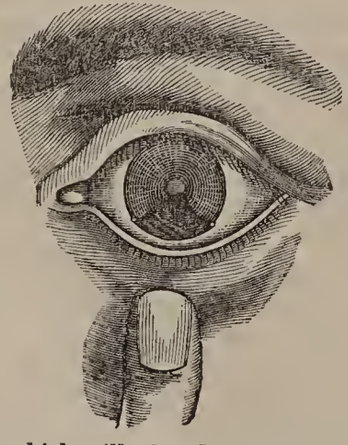
In cases where the operation has been delayed, and sympathetic inflammation of the other eye has already set in, we have to face a condition of the gravest import. Ophthalmologists are agreed in looking upon this stage of the disease as all but hopeless, and the propriety of any surgical interference is even called into question. This last is the view which I adopt in most cases, upon the principle that, if surgical interference cannot return sight to either eye, it ought not to be had recourse to. But sometimes we are called upon to operate, either with the view of alleviating suffering, or to give the patient some chance of saving vision, however slight that chance may be. Some years ago, when at Stranraer, I was asked to see a patient who had injured one of his eyes with a piece of coal only three weeks before. The injured eye had suppurated, but caused no pain, while the other eye was completely destroyed by sympathetic inflammation, and caused him great suffering. Seeing the hoplessness of his condition, I advised non-interference; but a year later he came to the Glasgow Ophthalmic Institution, asking me to remove the non-injured eye, which was in a condition of total staphyloma, and had caused him intense suffering during a long period, as was evinced by his emaciated condition. Enucleation in this case relieved the patient of his protracted suffering.

The following case was well-nigh hopeless, and to all appearance bordering on total blindness, yet the circumstances were

(a) "On Traumatic Cataract." (Read before the Ophthalmological Congress.) London, 1872, page 75.

such that I could not withhold surgical interference, and by enucleating the injured eye, and operating on the other, I saved an amount of vision beyond my most sanguine expectations.

Case 1.—George G., aged eleven, Glasgow. On October 29, 1874, when assisting a tin-smith at his work he was struck with a piece of iron on the right eye; vision was completely abolished, and pain persisted in that eye in spite of treatment from the time of the accident till the beginning of May, 1875, when he was ordered to the country to recruit his health, which had begun to suffer. In July he returned from the country, when he was again taken under treatment till September 20, when he first presented himself at the Glasgow Ophthalmic Institution for advice. The boy's face manifested great suffering—there was great photophobia and lachrymation in both eyes; spasms of the orbiculares, so great that it required considerable force to open the eyelids. The right, which was the injured eye, presented a flat cornea, a large central cicatrix, showing the site of the injury; the eyeball was shrunk, and flattened in several places. The non-injured eye did not look more promising: the eyeball was unsteady; the pupil completely occluded by a false membrane; the iris of a dirty greenish colour and bulging forward; the anterior chamber very nearly obliterated; the ciliary circle constricted and tumefied; vision entirely abolished. He could see no objects, nor his own fingers. On touching the injured eye through the eyelids, he started as if hurt, and this was repeated several times with the same result. From the violence with which he started at each touch, I had no hesitation in deciding that there was a foreign body still lodged within the eyeball, and advised immediate enucleation. This was accordingly done, and on examining the eyeball after removal I found that the lens had completely disappeared; the vitreous was scanty and full of serosity and clots; and there was a rusty piece of iron, measuring three-quarters of an inch in length and one-sixteenth of an inch in breadth, grasped by the iris, ciliary processes, and fibrous bands so firmly that it required to be dissected out from the position where it was embedded. As to the injured eye, the distressing conditions above described were not ameliorated by the removal of the offending body; it continued in the same state for three weeks. The question now became pressing, shall the case be abandoned as utterly hopeless, or shall an attempt be made to save at least some degree of vision? All medical treatment in such cases has hitherto proved, in my experience, only waste of time. Iridectomy, in the ordinary way, is equally fruitless, for we have here to deal with a state of plastic irido-cyclitis, where the edges of the wound made in the iris close speedily, and thus the former condition of parts is sooner reproduced. To obviate this risk of failure, I tried in this case a new form of iridectomy, namely, after removing a large segment of the iris, I laid hold with the iris-forceps of each free border, and fixed them at each extremity of the corneal wound, thus preventing the reclosure of the pupil. The appearance is shown



in the woodcut, which will also demonstrate that the operation was not performed too soon, for indeed the plastic bands very nearly covered the lens. I succeeded, however, in tearing one or two of these, and thus securing some passage for the rays of light. Now, after six weeks, the eye is steady; there is little lachrymation, and he can count fingers and see tolerably minute objects. He is still progressing favourably. The tenderness of the eye to the touch, and especially tenderness in the ciliary region of an injured eye, is itself an urgent call for enucleation; and that peculiar start at the touch, as if the person had been pricked, is a symptom of a foreign body lodging in the interior of the eyeball, as certain as if it had been proved by ocular demonstration. There is only one pathological condition caused by injury in which the symptom of starting is present—namely, ossific deposit in the interior of the eyeball, the product of internal ocular hæmorrhage,—but it takes several years before the disease is fully developed, and I have never seen it terminate in destructive sympathetic ophthalmia, neither is the starting so violent as in the case of the impaction of foreign bodies in the interior of the eyeball.

That the irritation of the optic nerve may cause sympathetic inflammation, appears from the following case:—

Case 2.—A. D., agricultural labourer, St. Cyrus, eight years ago, when driving in a nail, thought he hurt his left eye somehow, but could not say exactly in what manner. The eye became inflamed, and continued so for several days; it soon recovered, however, and vision remained perfect for a year, after which, it began gradually to decline, and was then entirely abolished. The eye, however, did not cause any uneasiness till about two years ago, when it began to feel tender and occasionally painful. This lasted till August, 1875, when dimness of vision in the other eye began to set in, and he applied to the Glasgow Ophthalmic Institution for advice. The cornea of the left eye presented a small cicatrix at the outer and upper margin of its junction with the sclerotic; the iris was discoloured; there was a metallic reflection from the fundus, showing detachment of the retina; there was that characteristic start when the eyeball was pressed in a certain direction. The corneal cicatrix showed evidently that a foreign body had entered the eyeball; I therefore inferred that it must still be embedded among the deep structures, and recommended enucleation. This was done; and on examining the eye after operation, a chip from the hammer was found embedded in the sclerotic close to the optic nerve.

The remarkable circumstance connected with this case is, that the pathological condition of the uninjured eye was not manifested within the territory of the ciliary region, as in the ordinary form of sympathetic ophthalmia. All the tissues within that region were perfectly normal; but there was slight neuro-retinitis with partial retinal infiltration, which caused dimness of vision. This subsided after the removal of the other eye. I therefore cannot avoid the conclusion that in this case the optic nerve was the conductor of the morbid impressions, and caused reflex pathological phenomena in the uninjured eye.

ON THE PROPRIETY OF BLEEDING IN ACUTE DISEASE.

By J. T. MITCHELL, F.R.C.S., etc.

"Medio butissimus ibis."

During more than thirty years I have filled the office of medical director of one of the largest life-insurance companies of the country, and one part of my duty in it has been to record the cases of death that occur therein, and the causes thereof; and from the frequent instances in which death has occurred from acute pleuro-pneumonia, peritonitis, and other inflammatory attacks of vital organs, in subjects many of whom were young, and who, before these fatal illnesses, had enjoyed robust and vigorous health, I have been induced to ask myself—What has been and what is the cause of this fatality?—when, in considering its comparative rarity in my own extensive and protracted experience, I have been drawn to the conclusion that the valuable theory of inflammation taught by the immortal Hunter is thoroughly misunderstood, and has been so now for a long period, and therefore the most palpable means for its relief has been so neglected. I allude to general and free bleeding in the early stages of such affections—a practice which for many years has been most unwisely and unjustly reprobated by teachers and hospital practitioners, and which now is scarcely ever heard of but as one to be utterly condemned.

During the last year, however, my hopes have been revived in the belief that physiologists and pathologists are returning to a wise reconsideration of the legitimate use of this effective agent—the lancet. First, as it was shown in the address of that acute observer, deep thinker, and worldwide-esteemed pathologist and physiologist, Sir James Paget—given by him before the assemblage of the British Medical Association at its meeting in 1874 at Norwich—in which he alluded with so much

force of argument to the neglected practice of general bleeding in acute disease, and to its great value when adopted under the guidance of sound medical intelligence; and, secondly, in the published opinions on the same subject, made by Dr. Richardson and others who have had extensive and convincing experience in the proper use of the remedy, found in papers published in the medical periodicals.

I remember, also, that some years since I was present at a meeting of the Hunterian Society of London, when the late Mr. Solly read a paper on the subject of bleeding, in which he expressed himself very much in the same manner, and having the same object before him as Sir James Paget had in the address above alluded to, setting forth the neglect into which this remedy had unfortunately fallen, considering, as he did, its great value when used with sound discretion, and confining its use to cases in which recently established congestion or inflammation existed in vital organs—a state which, if not unchecked in the early and first stages, so rapidly runs on to destructive disorganisation, such as sphacelus, abscess, dangerous hæmorrhages (in the brain or lungs), dropsies, injurious adhesions, outpourings of coagulable lymph, and death, as well as in permanent enlargements and indurations of viscera, and many other chronic affections with which modern practice has continually to contend, and which, by the adoption of this remedy at the proper period, would often have been entirely prevented.

I am quite willing to acknowledge that there was a time when many men, guided by mere custom or ignorant routine, most inconsiderately bled, too frequently, and to a most injurious extent, by which recoveries were greatly impeded, and perhaps where even death was the result; but there never was a time when, in robust subjects attacked with acute local congestion, bleeding, adopted at a sufficiently early period, did not readily suspend excessive vascular action, and so tend to prevent subsequent disorganisation. But I repeat that it is only at a very early period that this remedy can be so advantageously employed; for after the first stages of these affections are passed, seldom anything but disadvantage can be expected to follow, for then every drop of blood—the very "*pabulum vitæ*"—the essential material required to carry on the reparation of the damage done by the disease and restoration of the lost strength,—and every means having reparation for its object, must be devised and adopted—*is* urgently wanted.

I will, however, most earnestly emphasise my fixed conviction, by declaring that nothing that I have observed in the extensive field of public and private practice, now protracted as student and practitioner beyond sixty years, has ever shown me that the abstraction of blood under the circumstances described has ever done harm, or has not been the most ready and efficient means of cure.

In the year 1847, during the notorious epidemic of influenza then extensively prevailing throughout this country, and which was especially severe in the parish of Lambeth, in which at that time I was a district medical officer, very many cases of acute pleuro-pneumonia came under my treatment, which gave me a most extensive opportunity for observing the effect of general bleeding in acute disease. In one day, I and my assistants then saw as many as 234 cases, almost all being lung and chest affections, more or less acute. At that time I had a very intelligent assistant, who had been for some time a pupil at one of our largest hospitals, where for twelve months he had been observing the practice of the physicians of the institution, and I shall never forget the astonishment which he expressed on seeing my treatment in a case of pleuro-pneumonia that occurred in a young and previously robust and healthy man. One morning, whilst he and I were engaged among a crowd of waiting people, a young woman, in a most excited state, rushed unceremoniously into the surgery, pushing the people aside, and with great importunity came up to me exclaiming, "Oh, sir, do come as soon as possible to see my husband, for he is dying!" I asked her from what he was suffering, his age, and his business, when she answered, "He is a carter, and about twenty-six years of age; he was quite well the day before yesterday until night, when he was seized with difficulty in breathing, a dreadful cough, and agonising pain in the side; his face is now perfectly blue, and his hands and feet are as cold as ice." As her importunity was so great, I said to my assistant, "This poor fellow evidently is suffering from acute pleuro-pneumonia; go down, and immediately take from his arm twelve or sixteen ounces of blood." Upon which he said, "I never bled in my life, and I have not a lancet." I then gave him a lancet and a short lecture on bleeding, and sent him off with the poor woman; very soon after which he returned, and told me that "the poor man was dying, and nothing would save him—indeed, he was pulseless and cold." As soon as we had dismissed the cases surrounding us, we proceeded together to this patient's house, where I found him suffering in the manner described by his wife and by the assistant. I had seen cases much in the same state, but perhaps never under the same extremely alarming circumstances. His wife now repeated what she had told me before of his previous condition, adding that he had always been a most temperate man, and had never been ill before. Well, what was to be done to give him any chance of relief? I said to the assistant, "I shall at once bleed him." This evidently excited his ridicule. "What!" said he, "bleed a pulseless man?" "Yes," said I; "wait and see the effect of my attompt."

I first procured two large pails, and got them filled with water about 100°. Having placed them at the side of the bed, I cautiously raised him from the recumbent to the sitting position on the edge of the bed, and put each foot and leg into one of the pails. I then had two wash-hand basins nearly filled with water of the same temperature, and placed his hands and arms as deeply as I could into them. I then tied up his right arm, for the purpose of "raising a vein." At first, pulseless as he was at the wrist, no vein would rise, but after a minute or two a vein became sufficiently prominent to enable me to make a free incision into it: the first effect of this was that blood flowed only drop by drop, but in a short time a small continuous stream followed, until enough blood had passed to relieve the stagnant circulation, when the stream increased, and at last it flowed *pleno vivo*,—upon which my young friend's formerly sceptical countenance changed, and began to brighten with evident astonishment, and he expressed his wonderment. By this time the pulse at the wrist had become restored to considerable power, the venous livid congestion of the face had greatly lessened, and very soon it entirely passed away. I now requested the man to inspire as deeply as he could, upon which he said the pain in the chest and side was greatly lessened. I still allowed the blood to flow, until sixteen ounces had been collected in the basin, at which time he said he had no more pain, but he felt extremely faint; upon which, having secured the vein, I removed him from a sitting to a recumbent position, and gave him two grains of opium; after which, having darkened the room by drawing down the blind, we left him, having directed the wife to give him nothing but warm milk, and as much as he might be disposed to take; and if he should fall asleep, by all means to prevent his being awoke. All this took place about mid-day, and at six in the evening we went again to see him, when we found him with a countenance bearing a natural aspect, pulse distinct and of moderate power, and about 100 in the minute; his breathing very much relieved, but still more frequent than natural; but the pain in the side had returned to a slight extent, upon which I again tied up his arm, and, from the same orifice previously made in the vein, drew off, in a good stream, six ounces more blood: this entirely relieved him. I then repeated the dose of two grains of opium, and left him, having reiterated the instructions given in the morning. From this time, by implicit rest, sedative diaphoretic medicine, counter-irritation by mustard-plasters on the chest, and light nutritious diet—chiefly milk—he day by day rapidly improved, so as to be able to return to his work after a fortnight's interval.

On observing the conspicuously sudden and unmistakable result which followed the bleeding, my young friend declared, as we walked from the house, that he had learnt more of practical pathology, therapeutics, and physiology relating to the functions of the heart and lungs from this case and treatment than he had gained by all his previous studies and observations made during the time which he had spent at the hospital, and in the course of his four years' previous apprenticeship, which he had passed in a large dispensary in a populous town in the West of England.

Innumerable cases of the same severe type as the one described, perhaps few of the same very alarming character, have been treated in like manner, and with the same success, in my experience, and especially cases of puerperal peritonitis, of which twenty-seven have fallen under my treatment within the last fifty years, one only of the number having proved fatal. Therefore my faith in the judicious use of the lancet has never forsaken me during the protracted period of clamour which has so long existed against it.

It may well be asked, Why is it that within the last thirty years so great a revolution has taken place in the practice of medicine, and that teachers now almost universally reprobate abstraction of blood in the treatment of strongly marked congestions and inflammations? The answer appears to me to be this—that cases such as I have described scarcely ever are admitted into hospitals in the very early stages, and at the time when this remedy can be advantageously used; for in most cases many days have necessarily intervened from the day when the attack first came on to the day when thus admitted, and the time has gone by for the judicious abstraction of blood, and the stage of the illness has arrived when the repairing functions alone are to be considered and aided; and the patient has to be supported by tonics, cordials, and judiciously selected food. Another great impediment has stood in the way of the practice of judicious bleeding, which is the strong objection felt by patients against submitting to any, the most trifling, surgical operation, which has been allowed to guide the decision of medical advisers too frequently. And I fear that a third cause may be found in the incapacity and bungling in the performance of the operation felt by some unpractised hands.

If the abstraction of blood in all cases be so universally injurious, as many pathologists have taught, why is it that in so many cases of extensive hæmorrhage, produced by natural causes, so little injury is known to follow?—as in epistaxis, in cases of vertigo, in which pints have been lost within a few hours, and fatal apoplexy has been averted; or in hæmatemesis, in cases of gastritis, when immense quantities of blood have been vomited, and nothing but the cure of the patient has been the result; or in cases of post-partum hæmorrhage, or in miscarriages, where women have lost enormous quantities of blood, when the normal quantity has been soon restored, and no anæmic evils have after a time been left.

There will not be many more years left for me, at my advanced stage of life, to observe what beneficial consequences may follow this apparent returning prospect of good practice; but I do hope, from the present scintillation of light breaking on the horizon, that the bright day of common sense is not far off when the lancet will be restored to its too-long-lost legitimate use; but I do trust that it never will again be used in the same careless, reckless, irrational manner as in times now happily long passed, nor to the same damaging extent as we have heard of as still prevailing in a Southern State, where, by the repeated and unwarrantable abstraction of blood, not only the life of a great statesman of its own is said to have been sacrificed, but also that of one of our own most highly talented artists, for a time happening to fall ill whilst there visiting, both of whom, by report, seem to have been little short of bled to death.

Let, then, the poetic advice set forth by Ovid, as given by Sol to Phœbus, familiar to us in our school-days, and quoted at the head of this paper, be our motto and guide in the future use of our lancets, which, when simply translated, means—Avoid extremes!

Clapham-road, London.

[*Copy.*]

16, Henrietta-street, Cavendish-square,
November 6, 1875.

Dear Mr. Mitchell,—I have carefully read your paper, which I herewith return to you.

I agree entirely with you in thinking that, whereas general blood-letting was, at one time, often employed too indiscriminately and in blameable excess, its subsequent almost total disuse was unwise, and in many instances disastrous.

The complete disuse was, in my judgment, a more serious mistake than over-use had been. At present, however, I see, as you do, plain indications of a return to a better and more rational practice in respect of the employment of the lancet in certain acute forms of disease.

Believe me to remain, very truly yours,

J. T. Mitchell, Esq. Thos. Watson.

Small-pox in Manchester.—It is reported that a very severe outbreak of small-pox has taken place in Manchester and Salford. Of thirty-five persons attacked in one district, seventeen rapidly succumbed. The sanitary authorities are doing all that is possible to limit the spread of the disease.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

CIRCULAR LACERATION OF THE INNER AND MIDDLE COATS OF THE BRACHIAL ARTERY, FOLLOWED BY THROMBOSIS AND GANGRENE—FRACTURE OF RADIUS—BRUISES OF LEG—DEATH.

(Under the care of Mr. HULKE.)

———, aged fifty-eight, was knocked down by a Hansom cab on January 12, 1875, the wheel of which passed slantingly across the left forearm and arm, breaking the radius at the junction of the middle and lower thirds, and making a laceration in the skin and fascia one inch in length and half an inch wide at the outer and back part of the forearm, two inches below the elbow. His left leg and thigh were very swollen and mottled with effused blood, and it was rather on account of this than of the injury to the forearm that he became an in-patient. The wound in the forearm was dressed antiseptically, the fracture of the radius was reduced, and a back and a front splint were put on. Goulard water was applied to the leg. Temperature 98·2° Fahr.; pulse 82. There were at this time no signs of any arterial injury.

Next day, at the midday visit, he said his forearm was easy, and there did not appear to be any reason for removing the splints. On the 14th, two days after the injury, the bandages seeming to be a little tight, were loosened; he still said his arm was quite easy. On the 15th, the forearm and arm were swollen and mottled with purplish and greenish blotches nearly as high as the shoulder; the fingers were cold, and no pulse was detectable in the ulnar and radial arteries at the wrist. The wound was sloughy, and a thin, bloody ichor oozed in considerable quantity from it. Temperature 101·4°; pulse 94. He firmly declined amputation, which seemed his only chance. Several incisions were made, from which drained large quantities of fluid, first bloody and serous, and later puriform and shreddy. His temperature slightly fell. He became drowsy, and died on the 18th, the sixth day after the accident.

Dr. Coupland, who examined the body, reported that all the cellular tissues of the left upper extremity, the intermuscular as well as subcutaneous, were distended with turbid serum—in some places bloody, in other parts puriform. Several of the muscles on both surfaces of the forearm were torn, and had blood extravasated into them about the lacerations. The brachial artery in its lower third was plugged with a firm clot which extended a short way into the ulnar and radial arteries. Both above and below this clot the vessels were pervious, and the radial and also the ulnar artery were contracted. In detaching this clot it was found to be most firmly adherent to the brachial artery at and near a circular rupture which severed the inner and middle coats, leaving the connective tissue or outer coat entire, so that the continuity of the vessel was unbroken, and no lesion was discoverable till it was slit up. The edges of the ruptured coats were frayed and turned inwards into the lumen, presenting here a roughness which had evidently induced the deposition of clot. The venæ comites and most of the superficial veins in front of the elbow were plugged.

The deeply pigmented lungs were very congested; and the heart was large, and loaded with fatty tissue. The spleen was large and very soft. The right kidney was large, pale, and flabby; and attached to its hilus was a soft, whitish, encephaloid mass. The left kidney was a bunch of cystiform spaces, no trace of secreting tissue remaining; a calculus of the size of a bean blocked the upper end of its ureter.

Lacerations of large arteries by mechanical violence unaccompanied by an external wound are, it is believed, usually complete. All the coats being severed, the continuity of the vessel is interrupted, and the nature of the accident immediately reveals itself by the absence of pulsation in the vessels beyond the seat of injury, and by the marks of extravasation of blood into the parts around. Less frequently the two inner coats alone are lacerated, the external coat remaining entire; in which case, the continuity of the vessel not being broken, the blood-stream for a time flows without perceptibly abated

force through the injured part of the tube, and the pulse beyond not being appreciably altered, and there not being any hæmorrhage, the existence of the injury is not immediately known. The direction of the rent in these cases is often transverse to the long axis of the artery, which allows its edges, rough and frayed, to bend inwards and encroach upon the lumen of the vessel.

The obstacle thus presented to the stream promotes the formation of a clot, which constantly receives fresh accretions, until the artery in the neighbourhood of the injury is completely plugged. Here signs of arterial obstruction do not arise till some time after the injury. The case just related aptly illustrates this point. That the gangrene was not dry, but moist, depended mainly on the simultaneous plugging of so many veins; those continuing pervious were insufficient to return the quantity of blood reaching the parts beyond the injury through collateral channels, in consequence of which the pressure rose excessively, causing a copious transudation. The damaged state of the patient's kidneys renders it probable that amputation would not have saved his life; but their condition was not known when it was first proposed to him. In the museum of the Middlesex Hospital are two preparations—one of the aorta, the other of the superficial femoral artery—in which, after a circular laceration of the inner coat, this has been stripped up by the blood-stream and invaginated. In the aorta it remains open; in the femoral artery it forms a rounded ball, blocking the vessel.

WOUND OF THE INTEROSSEOUS ARTERY OF THE FOREARM—DOUBLE LIGATURE ABOVE AND BELOW THE OPENING IN THE VESSEL.

(Under the care of Mr. HULKE.)

A labourer, aged eighteen, was stabbed with a clasp-knife through the forearm on the night of August 22. The knife entered at the ulnar border, two and a half finger's-breadth below the inner condyle of the humerus, making a slit about an inch and a half long, parallel to the axis of the limb; and a smaller slit, three-eighths of an inch long, at the outer and back part of the limb, marked the spot where its point had come out. The bleeding was very profuse—his clothes were soon drenched with blood,—but as it had stopped before he could reach the hospital, he would not stay after the wounds had been dressed. Two days later he was again brought to the hospital, the inner wound having at 5 p.m. bled copiously. The House-Surgeon slightly enlarged it, and, failing to find the injured vessel, temporarily stopped the bleeding by pressure, and sent for Mr. Hulke, who saw him at 9 p.m., enlarged the wound to the extent of about four inches upwards and downwards, splitting the flexor carpi ulnaris parallel to its fibres. The superficial and deep flexors were separated by a mass of coagulum, and when this had been cleared away the ulnar artery and nerve, for the space of about three inches, came into view; they appeared to have escaped injury, and the bleeding came as if from the middle of the limb. By flexing the forearm and hands, the muscles were so thoroughly relaxed that it was easily traced to its source—an artery of the size of a crow-quill in the middle line of the forearm, running along the interosseous space. From a small round hole in the front of this artery the blood was seen to jet freely. A ligature was placed above and below the opening, and no more bleeding occurred. The wound was washed out with a solution of carbolic acid; and, as it was very deep, and the tissues were infiltrated with extravasated blood, two drainage-tubes were inserted into its bottom. Antiseptic dressings were used, and the whole limb was fixed upon a splint, with the object of enforcing perfect rest. He made a good recovery, and was discharged convalescent on the 17th of the following month.

For hæmorrhage from the ulnar and radial artery in the upper part of the forearm, where these vessels are covered by the thick fleshy bellies of the flexor tendons, probably the most widely adopted practice is to tie the brachial artery. This has been sanctioned by the highest authorities. The proceeding is easier. It is believed not less certainly to control the hæmorrhage than ligature at the seat of injury, though this is doubtful; and the future usefulness of the forearm is not compromised, as it might be by the incisions necessary to reach the wounded vessel. Similar considerations have led the author of one of the most extensively used surgical text-books to denounce, as thoroughly unpractical, attempts to secure the interosseous artery when wounded in the upper part of its course. The above case, however, shows that in a recent wound, Guthrie's maxim—to tie every wounded artery at the seat of injury—is applicable even to the interosseous artery. With competent assistants and anæsthesia, the difficulties will probably seldom prove insuperable, and the inconveniences of a deep, irregular, and indirect wound can be lessened by a careful use of drainage and of antiseptic precautions.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF SHORT TYPHOID FEVER, WITHOUT TYPICAL SYMPTOMS; RELAPSE OCCURRING ON THE TWENTY-SECOND DAY, AND LASTING A FORTNIGHT—RECOVERY.

(Under the care of Dr. ANDREW.)

[For the notes of the following case we are indebted to the House-Physician, Mr. Vincent Harris, M.B. Lond.]

William V., aged seventeen, was admitted into hospital, together with five other boys, from the *Cornwall* training-ship, on October 25, 1875. All of them were reported to be suffering from typhoid fever.

When first seen in the ward, the boy was evidently much exhausted by his journey from Purfleet, which had taken nearly ten hours. It was, therefore, thought best to postpone an extended examination until next day. He then stated that his illness had begun on October 22, with shivering, which lasted a good part of the day, soon followed by headache, principally occipital; and, on the 24th, by vomiting, without previous nausea or loss of appetite. He had had no diarrhœa, pains in the abdomen, or other typical symptom.

Note on Examination.—Strong and well nourished; lies on his back; looks drowsy, and seems to be deaf; face very flushed, and skin shining; pupils dilated; lips dry and red; tongue covered with a thick white fur on dorsum, red elsewhere—papillæ prominent, and dry; appetite stated to be good, and bowels confined. No signs of any pulmonary or cardiac affection, nor any tenderness, abnormal fulness, or tumour to be discovered in abdomen; no rose spots; urine contains no albumen, but the chlorides are somewhat deficient. Temperature 102·6°; pulse 88, full and dicrotous. The lad says that he has no headache or pain anywhere; and, except that he feels weak, thinks that he is almost well.

He was put upon slop diet, and ordered ten minims of dilute hydrochloric acid every sixth hour. Upon this treatment he steadily improved; the temperature regularly fell, and by November 3 the symptoms of fever had disappeared. Throughout the attack the bowels were inclined to be constipated; there were no rose spots, no tenderness of the abdomen, or splenic tumour; no cough or lung signs, and no delirium or want of sleep.

He was allowed fish for his dinner on November 5, and meat a day or two afterwards. He left the hospital on the 11th, feeling well and hearty.

On November 15 he returned, and stated that the day after his discharge he had had another shivering fit, which was soon followed, as in former attack, by lost of appetite and severe headache.

When re-admitted, it was found that he presented much the same signs as on first occasion. Temperature 104°; pulse 100, full and dicrotous. In addition, however, there were some general rhonchial sounds over the lungs, but no crepitation or dulness. He had a short dry cough, and, as before, the bowels were not loose.

The relapse was accompanied in its course, as at its commencement, by much the same symptoms as in first attack; the only additional one being some bronchial catarrh. The fever abated in the same gradual way, and on November 26, the fifteenth day of the relapse, it had left him. No further relapse occurred, and the patient was discharged from the hospital on December 18.

Temperature of Primary Fever and Relapse Compared.

	Morning.	Evening.
4th Day.—Primary fever	—	104·2°
Relapse	—	104·2
5th Day.—Primary fever	102·6°	102·8
Relapse	104	104
6th Day.—Primary fever	102·6	103·8
Relapse	103·8	104·2
7th Day.—Primary fever	101·8	102·8
Relapse	102·2	103·2
8th Day.—Primary fever	100·4	101·8
Relapse	102·8	103·4

	Morning.	Evening.
9th Day.—Primary fever	99·6°	101·8°
Relapse	102·4	103
10th Day.—Primary fever	100·4	100·2
Relapse	101·4	102
11th Day.—Primary fever	98·8	99·5
Relapse	103·2	103
12th Day.—Primary fever	99	100·2
Relapse	102·6	103
13th Day.—Primary fever	98·6	99
Relapse	100·6	—
14th Day.—Primary fever	97.8	—
Relapse	99·4	—
15th Day.—Primary fever	98	—
Relapse	98·2	—

Remarks.—The absence of the typical symptoms of typhoid fever in this case might appear to render the diagnosis questionable. But it seems probable that it was typhoid fever of mild type, because of its occurrence among a large number of undoubted cases of the disease; and besides, the fever lasted more than seven days, and was unattended by cutaneous eruption, or by signs of local disease in the head, chest, or elsewhere. Fevers of this kind, Dr. Murchison says, are mostly enteric, "even though there be no symptoms of intestinal lesion." The occurrence of the relapse so long as ten days after the end of the primary fever is rather uncommon, and that it should have lasted longer and have been more intense (see above table) is also not the rule.

Another boy from the *Cornwall*, admitted into the same ward (Mark), passed through a fever almost exactly similar to this boy's attack. It differed only in being accompanied by more fulness of the abdomen and tenderness on pressure in the iliac fossæ—especially the right,—and in the scanty eruption of rose spots. It was not, however, followed by a relapse.

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Medical Times and Gazette.

SATURDAY, JANUARY 15, 1876.

SUDDEN OR RAPID DEATH AFTER THORACENTESIS.

It is well known that paracentesis thoracis was described by Hippocrates, and was occasionally performed in the middle ages; but more than the first quarter of the present century had come and gone before the operation began to occupy a well-established position. It is but little over twenty years since one of the leading physicians and medical teachers in the metropolis—Dr. Addison, of Guy's Hospital,—gave it as his matured opinion that paracentesis thoracis is one of the worst and most deceiving operations in general practice. In his earlier years, and when guided, as he said, more by the fancies of new books than by experience, he was one of its warmest advocates, believing it to be a good operation for lessening dyspnœa, and relieving the most urgent symptoms of extensive effusion into the pleural cavity. In 1855 he had changed his views, and then thought that the dangers of the operation are of such a serious nature that they are by all means to be avoided. About this same time, however, the operation was strongly supported by Drs. Hughes and Hamilton Roe in this country, and it was being largely practised by M. Trousseau in Paris, and in the continental hospitals generally.

Dr. Addison thought the chief danger lay in the first operation; and it was the opinion of the opponents of the practice—amongst the chief of whom must be reckoned Watson, Stokes, and Hope—that by the admission of air into the pleural cavity a simple serous was converted into a suppurative inflammation. Then came the introduction of Dr. Bowditch's exhausting syringe, whereby the chest could be much more completely emptied of fluid, and the admission of air could be prevented with absolute certainty; but it was not till many years later that this instrument, and the success which had followed the use of it in Dr. Bowditch's hands, were fully known in this country. It was, without doubt, a great improvement, and was considered to have freed the operation of much of the risk attending it. Finally, there was introduced M. Dieulafoy's aspirator, wherewith any cavity could be completely emptied of its fluid contents, while the entrance of air was an impossibility. This established, certainly, a new era in the surgical treatment of many cavities of the body, and at once silenced all objections to thoracentesis on the ground of its liability to convert a hydrothorax into an empyema.

There had been raised, however, two other objections to the operation, viz.—(1) that thoracentesis was not requisite because acute pleuritic effusion does not cause death; and (2) that fatal syncope was likely to follow immediately after the operation. The first of these objections M. Trousseau considered he had absolutely proved to be untrue; whereas the second was either denied or considered trivial and unimportant. Recent events, however, demand that this latter objection be thoroughly examined.

Since the introduction of the aspirator there has been a great tendency to think slightingly of the dangers of thoracentesis, and there can be no doubt that it has been much more frequently employed than previously. Much credit, therefore, is due to the profession in France—the country which may fairly be called the birthplace of the modern method of operating by trocar and canula, and of the still more modern method by pneumatic aspiration,—for raising a cry of alarm which is to put us on our guard in resorting to the treatment. During the past year there have been published in French medical journals several cases of sudden or rapid death occurring during or shortly after thoracentesis; and it has been further stated that there has been an increase in the mortality from pleurisy since thoracentesis has become a common practice. Some remarks made at a recent meeting of the Pathological Society seemed to indicate that similar sudden deaths have occurred in England; and it would be as instructive as it is desirable that these cases likewise should be published.

As it is a subject of the very first importance, we have examined carefully the reports of the published cases as to the causes of death, with a view to ascertain, if possible, how far the operation itself has been concerned in the result. It

would be well, before drawing any conclusion on this point, to have a clear idea upon the wider subject of sudden death in pleurisy, and then to consider at what particular stage in the disease, when thoracentesis has been performed, the sudden death has occurred. Now, as to the occurrence of sudden death in simple pleurisy, although Louis and his followers have denied it, there can be no reasonable doubt. Trousseau has reported such cases, and Schuh and Skoda refer to syncope and sudden death as some of the worst consequences which may follow pleurisy. Nor is it necessary for our present purpose to discuss the statement that, when it happened, death by syncope was probably tho result of the restricted diet, and the blood-letting, and digitalis treatment. Trousseau has left on record an experience which cannot fail to make us careful against hastily drawing the conclusion that the operation itself has any part in causing the sudden death. He mentions the fact that Dr. Lasègue saw a young physician die suddenly, at the very moment he was about to plunge the instrument into the chest-wall. It must be remembered, too, that any sudden change of position or other movement or mental excitement has been followed by fatal syncope in diseases attended with considerable weakness. Sudden death has been known to occur from such causes during convalescence from typhoid fever; and we have ourselves seen similar cases of sudden death in persons affected with cancer.

If we next inquire into the exact stage after thoracentesis at which sudden death has occurred, we shall find no uniformity in the cases whatever. In some it has taken place at once, and at the first operation; in others not for three-quarters of an hour, or much longer, after the first operation; in others, again, two, three, or more operations had been previously well borne; and in a fourth set of cases a drainage-tube had been inserted, the chest had several times been injected, and yet death followed shortly after a subsequent washing-out of the pleural cavity. In at least two cases of this last kind, convulsions came on suddenly, and unconsciousness for a few hours preceded death.

Neither has there been any uniformity in the results of post-mortem examination of the cases. In some, blood-clots have been found in the heart and large vessels; in others, fatty degeneration of the heart; in others, embolic plugs in the cerebral arteries; in others, anæmia of the brain; and again, in others, pulmonary congestion. No wonder, then, that, in the discussions at the Medical Society of Paris, opinions as to the cause of the sudden death have varied; that it has been attributed in different cases to different causes—viz., to syncope from heart affection, or to anæmia of the brain owing to the rapid afflux of blood to the lungs; to congestion or œdema of the lungs; and to plugging of the cerebral arteries by clot detached and carried forwards from the pulmonary veins. No one of these conditions was constantly present to explain all the deaths after thoracentesis; each one has been found in cases of sudden death in pleurisy uncomplicated by thoracentesis. Lastly, be it remembered that sudden death after thoracentesis has been proved in some cases to have followed from some preventable accident, or some independent and unsuspected circumstance. A case under Addison died rapidly from hæmorrhage from a wounded intercostal artery. Another, reported recently by M. Libermann, died from hæmorrhage from an ulcer of the duodenum.

Does it follow, then, that we are justified in drawing the conclusion that sudden or rapid death after thoracentesis is due to some general or local condition of the patient on whom the operation is performed, and not to the operation itself? that the death and thoracentesis have no real relation to one another? It would certainly seem to do so unless the number of cases in which the coincidences have happened is far larger than we at present know. Certainly we are not justified, except after a very full consideration of the whole subject, in ascribing death to the anæsthetic which may have been given for the operation. And as certainly we cannot fairly impute death to the particular drug which was employed in washing out the suppurating cavity. Neither ought we to attach too much weight to the theory, founded, no doubt, on the experiments upon animals by Cl. Bernard, Chossat, and Tarchanof—that death is due to syncope from reflex action on the heart, excited by the pain of the puncture; or to the similar theory of reflex excitation from the contact of an irritating fluid with the pleura; for in some cases the sudden death has been delayed too long after the puncture or the use of the irritating fluid. But we are bound to add that if statistics are found to bear out the statement, that with the greater frequency and more general adoption of thoracentesis there are a larger number of fatal cases of pleurisy, then some explanation of the fact ought to be given; otherwise thoracentesis and the washing-out of the cavity of an empyema will once more come to be regarded as serious, if not actually dangerous, operations.

THE PHYSIOLOGICAL PROPERTIES OF CUMARIN.

Professor H. Köhler, of Halle, has recently investigated the physiological properties of cumarin, the active principle of the tonquin-bean, and has sent a preliminary account of his results to the *Centralblatt Med. Wiss.*, Nos. 51 and 52, from which we extract the following details:—Pure cumarin ($C_9H_6O_2$), which is snow-white, and forms beautiful crystals, was alone employed, and all the experiments were made with a solution of one part in five hundred parts cold water. It was found that the effect of the drug on the nervous system was extremely powerful, and that it acts, both in cold and warm-blooded animals, as an hypnotic and anæsthetic which more nearly resembles the alkaloids of opium, and especially morphia, in its characters, than any other narcotic. The animals under the influence of cumarin lie motionless in a deep sleep; their breathing is very slow and shallow; their limbs can be placed in any position without the least resistance; and they do not react to any stimulus—medicinal, chemical, thermic, or electrical—in the least degree. The cornea becomes absolutely insensible. This state of deep coma may terminate in the death of the animal, but neither in frogs nor in warm-blooded animals do convulsions ever occur throughout its whole duration. The total abolition of reflex irritability which cumarin produces, appears to be due to irritation of the cerebral centres, which arrest or impede the performance of reflex movements (*Reflexhemmungacentra*). The innervation of the heart is also remarkably affected by cumarin, so that at a certain period after it has been injected into the abdominal vein of a frog it becomes impossible to arrest the movements of the organ by powerful induced currents, applied directly to the venous sinus. There was, therefore, paralysis of the mechanism which retards the heart's movements, and which exists in the heart itself. In addition to this, there is a temporary paralysis of the nervous centre in the frog, as is proved by the dilatation of the capillaries, which immediately follows injection of the cumarin. Experiment shows that this dilatation has a central origin, for it no longer occurs if the central portion of the spinal cord is divided. In warm-blooded animals, the action of cumarin on the circulation is remarkable. If the carotid artery of a rabbit be connected with a registering manometer, and a solution of cumarin injected gradually, three or four cubic centimetres at a time, into the jugular vein, in the majority of cases there is first an increase in the blood-pressure of from six to twelve millimetres of mercury, which lasts from one second to a second and a half, and which is followed by a very considerable fall, but in from fifteen to twenty-five seconds the pressure returns to its original height. The primary rise of blood-pressure appears to be

simply due to the increase of fluid in the veins, and the consequent reaction on the arterial system, caused by the solution of cumarin, for an equal amount of water has the same effect. The secondary depression, which was found to continue even after the pneumogastric and sympathetic nerves, as well as the spinal cord, had been divided, appears to depend on a paralysis of the muscular fibres of the heart itself. This is at first only transitory, and the organ recovers itself; but after repeated injections of cumarin the paralysis becomes permanent, and the heart comes to a standstill during the diastole. The kymographic traces, during the period in which successive doses of cumarin are being injected, undergo a remarkable change. During the first three or four injections the pulse-wave either remains unaltered (in rabbits) or becomes somewhat lower (in cats and dogs); at the same time the normal frequency of the heart's beats is more or less diminished. As the injection, however, is continued, the character of the curve alters, the height of the wave becoming increased as much as twenty times or more, while the number of pulsations of the heart falls from forty to eleven in ten seconds in rabbits, and from forty to seventeen in kittens. The tracings, according to Professor Köhler, exactly resemble those which are observed after irritation of the pneumogastric nerves in the neck in the period of reaction.

If the cumarin injection is still continued slowly and in small quantities, the pulse-waves become gradually lower, the blood-pressure sinks more and more, and the animal dies. If however, during the later stages of the cumarin-poisoning, artificial respiration be kept up, and a powerful induced current be passed through the peripheral portion of the pneumogastric nerve which has been exposed in the cervical region, it is found that the heart can no longer be brought to a standstill by the stimulus applied, owing to the paralysis of the terminations of the vagus in the heart itself. The injection of cumarin diminishes the number of respirations very considerably in a given time. In three experiments on rabbits, the number of inspirations fell to three, two, and one, respectively, in ten seconds. This phenomenon is unaffected by section of the pneumogastric nerves. The temperature falls in cumarin-poisoning to an extent proportional to the severity of the general symptoms. The post-mortem examination of the animals poisoned by the drug revealed no very marked appearances. The blood with which the veins were filled had a cherry-red colour, and showed scarcely any tendency to coagulate. The heart (in rabbits) was still relaxed twenty-four hours after death, whereas, in cats, it was found firmly contracted after the same interval. The lungs were moderately injected, and there was a good deal of blood (generally uncoagulated) in the venous sinuses at the base of the brain. The bladder was usually found empty; in one case only it contained a good deal of bloody urine. The cumarin appears to be excreted unaltered by the kidneys. As far as Professor Köhler's experiments go they prove that the irritability of the peripheral nerves is not diminished by cumarin, neither does the size of the pupil seem to be affected by it in any constant way. Cumarin acts equally well whether administered by the mouth or injected into the veins.

THE WEEK.

TOPICS OF THE DAY.

The widely spread district of Wandsworth is under the supervision of no less than six Medical Officers of Health: Dr. G. E. Nicholas reports on Wandsworth, Dr. W. H. Kempster on Eastern Battersea, Dr. J. Oakman on Western Battersea, Dr. J. McDonogh on Clapham, Dr. D. C. Noel on Streatham, Tooting, and Balham, and Dr. H. Whiteman on Putney and Roehampton. These gentlemen have issued a combined report on the sanitary condition of South-west London, from which we gather that the deaths during the past year were 2796, at the rate of 19·5 per 1000. This was 2 per 1000 higher than the previous year, but seeing that the death-rate for the whole of London was 22·5 per 1000, and looking at the fact that the fatality attending the zymotic class of diseases was exceptionally high, it is submitted that the statistical result arrived at was anything but unsatisfactory. Moreover, the death-rates of the Wandsworth and Battersea sub-districts were disturbed by reason of the deaths occurring in public institutions in their midst, which derive their inmates from without the parishes in which they are situated. Typhus, typhoid, continued fevers, and small-pox showed a decrease in the number of fatal cases. Dr. Kempster points out the dangers which arise from puerperal maladies being communicated by an ignorant nurse, who was "not only careless, but wanting in common prudence as regards the cleanliness of her person and dress." With respect to the unattested deaths, the medical officers speak of the dangers to the community, by preventing the detection of crime, in allowing unattested deaths to pass, and they urge the need of reforms in the coroners' courts. It is stated that Clapham, Wandsworth, Streatham, and Putney have been fairly free from sanitary nuisances, but pig-keeping and other nuisances have troubled Battersea.

At a numerously attended meeting of Surrey magistrates the subject of the intended new lunatic asylum for the county was again brought forward. At the last meeting it was decided that a third asylum should be erected. Memorials against the scheme from Wandsworth and Guildford were read to the meeting. A letter was also put in from the Commissioners in Lunacy in reference to the various memorials sent against the scheme, in which a third asylum was strongly opposed. The memorialists recommended buildings of an inexpensive kind, with dormitories and day-rooms. After a discussion, the memorials were referred to the Committee to report upon; and a motion to memorialise the Government to reconsider the grant made for the maintenance of pauper lunatics, which was confined to those kept in asylums and licensed houses, was put to the meeting and lost.

Considering the price which butchers' meat has reached at the present time, consumers will hear with much satisfaction that a successful attempt to import dead meat from America has just been recorded. The method of preservation is at present a secret: all that is known is that vessels are specially prepared for the service; that the quarters of meat are each wrapped in rough cloth, and then placed in huge tank-like boxes, each box having within it a fan which is moved by steam power; and that outside each box there is a thick covering of ice. The sale of the meat sent over, at the Smithfield Market, was remarkably brisk, and was due in a great measure to the fact that a fortnight previously meat sent over on the same plan had turned out well.

The little war in which we are now engaged against the Malays has up to the present time proved exceedingly disastrous to the medical staff. In the first hostilities Surgeon-Major Randall, who has been doing duty as Colonial Surgeon in the Straits Settlements, was wounded; and we now hear that Surgeon Townsend has also been hurt. There can be no doubt that, in all kinds of desultory warfare of this nature, the doctor runs an equal risk with the combatant officer; though we fear that when the rewards for successful results are being distributed, it is the latter who carries off the lion's share.

We transcribe the following piece of intelligence from *The World;* if not true, it must yet be allowed to be *ben trovato*. "Some Bayswater burglars have made rather a bad shot of it. Having broken into the house of a well-known doctor in the neighbourhood, they were disturbed in the act of attempting to break open the plate-chest, and had to make off with the first thing they could lay their hands upon—a suit of clothes.

Unfortunately for the thieves, this suit was one specially kept by the doctor to be worn when visiting cases of malignant fever; and if, ignorant of this, the burglars have been 'trying it on,' the police will not have much difficulty in securing them."

Another case of accidental poisoning has to be recorded,—in this case accelerated by ignorance. A child, at Hackney, two years old, was suffering from scarlet fever, and was attended by Dr. T. G. Simpson. The father called at Dr. Simpson's for the medicine, and received two bottles from the assistant; one of these contained a liniment of belladonna. Although labelled "poison," and addressed to somebody else, the father, being unable to read, gave the supposed medicine to his wife to be administered, and as a result the child died about forty minutes after the liniment had been swallowed. The jury assembled to inquire into the cause of death censured the conduct of the assistant in handing over the bottles to the father without having first assured himself, by reading the labels, that he was giving the proper remedies prescribed by his employer.

Intelligence has reached this country that the barque *Reciprocity*, of Portmadoc, Captain Jones, master, arrived recently at Callao with the crew suffering from scurvy of a malignant type. A court of inquiry was held at the British Consulate, and its finding was that the captain had not used ordinary care with the ship's water; that the outbreak of scurvy was due to the use of rain-water, which had become bad, in hot weather; that he was highly culpable in not putting into some port on the West Coast of South America for assistance and fresh water; and that by such neglect he was responsible for the sufferings of the crew, and almost criminally responsible for the death of one of the seamen on board. Captain Jones was sentenced to pay a penalty of £45, and the costs of the inquiry, for neglecting to make the required entry in the official log-book; to be superseded; and to have his certificate suspended for twelve months.

Some of the parochial authorities on the Middlesex side of the Thames have issued earnest appeals to householders to look closely after the water which is supplied to them. They state that the companies, with every desire to filter and purify the water provided by them, are unable to do so thoroughly in consequence of the recent overflowings of the River Thames; and that, notwithstanding all their care, a large amount of sewage matter must find its way into the cisterns—an event which can only be prevented by close attention on the part of the householders themselves.

The borough analyst at Sheffield has been testing the care and accuracy of the druggists of that town in making up physicians' prescriptions, and the result, we are sorry to say, is the reverse of satisfactory. The prescriptions, all written by qualified men, were so arranged that each should include a full dose of some expensive remedy, capable of ready and accurate estimation in a mixture. A series of these samples, in which 120 grains of iodide of potassium were prescribed, were found on analysis to contain 122, 120, and 76 grains respectively. The last was, therefore, made up with hardly two-thirds of the active ingredient required. The Health Committee have decided not to prosecute on this investigation, but all the local druggists have been warned of their liability to prosecution.

It is, we think, a matter of much regret to find that Lords Shaftesbury, Lichfield, and Elcho have withdrawn their names as president and arbitrators of the Artisans' Dwellings Company. An attempt at explanation of this proceeding has been published in a provincial paper, but their lordships had no alternative but to withdraw after the communication addressed by them to the directors, to which no attention was paid. Great care is needed in conducting a company of this description, and the guarantee afforded by the names of the noble arbitrators, now withdrawn, was an incalculable advantage which should not have been rashly parted with.

Dr. Charles Augustus West, of Bodmin, Cornwall, has been appointed a magistrate for the borough.

THE "MEDICAL EXAMINER."

We have received the first number of a new metropolitan medical journal, having the title of the *Medical Examiner*. We are informed that there is such an obvious necessity for a medical journal, "untrammelled by traditions, uninfluenced by the commercial interests of a medical publisher, and free from the fetters of an association," that no surprise will be excited by the appearance of the *Medical Examiner*, its publication being "the simple outcome of the present position of the profession in relation to its weekly literature." The pre-*Medical Examiner* journals are divided, it appears, into three classes, and we have anxiously asked ourselves to which class we belong. Certainly not to the third,—no association binds us in its fetters; and as certainly not to the second, inasmuch as we are utterly unaware of being influenced by the commercial interests of a medical publisher. Must we, then, own to being trammelled by traditions? Well, we do confess to being fettered, and influenced, and even trammelled by certain traditions—such, viz., as traditions of independence, of impartiality, and of professional honour; and, moreover, we hope and believe that these principles will become guiding traditions with the *Medical Examiner* also, should it be granted a long life. But, no doubt, of all kinds of knowledge, self-knowledge is the most difficult of attainment, so that we may unwittingly belong to one of the classes of journals that fail in the way noted to meet the wants of the profession. If the belief in this failure is justly founded, we are glad the *Medical Examiner* has come to the rescue; and certainly, so long as it maintains the character of "an outspoken, fearless, and strictly impartial journal" it will receive from us a hearty welcome into the brotherhood of journalism. We may, we hope, be permitted to say, however, without incurring any charge of want of courtesy, that we fail to find anything new in the programme of the new journal, unless it is the opinion that the One-Portal Examination or the "Compulsory State Examination for all Practitioners" should be conducted publicly,—the advantages of which we fail to recognise. The journal, however, contains one leading article which we confess appears to us ingenious and novel rather than sound, on "The Abolition of Purchase in the Medical Profession." The argument appears to be this: No salaries are attached to hospital appointments, therefore these can only be held by men who possess an assured income of at least two or three hundred pounds a year; hence it happens that the most able man, if poor, cannot take hospital appointments, and a plutocracy—a system of purchase, in fact,—which ought to be overthrown, exists in the medical profession. And in order to effect this reform, all hospital appointments must be open to competition, and must be salaried. We reply to this that poor but able and hard-working men do obtain hospital appointments, and support themselves by teaching and other means; that "competition" does not, by any means, certainly secure the fittest men; that if no man is to inherit any advantage from his forefathers, the whole social fabric must be revolutionised; that we do not see whence the desired salaries are to come from, unless from State subventions; and that State subvention implies State control and government of our medical charities—*i.e.*, a revolutionising of the whole system of medical charity as it exists with us.

Au reste, the *Medical Examiner* has some very good matter; and it is to have in each week twenty-four hours' start of us

and other medical journals. If it meets a real want, it will deserve and obtain success.

THE ROYAL VISIT TO INDIA.

Our Special Correspondent, travelling in the suite of his Royal Highness the Prince of Wales, writes to us from Madras on December 15. After speaking of their arrival in Madras, he goes on to say:—We remain here until the 18th, and then go to Calcutta. After leaving Bombay our route had to be altered from that originally projected. The appearance of cholera in an epidemic form about Coimbatore and other districts through which our route lay, rendered it absolutely necessary that the Prince's visit to that part of the Madras Presidency should be abandoned—or, at all events, postponed until the aspect of affairs was more favourable. Accordingly, instead of landing at Beypore, and proceeding to Michael's Valley in the Annamallay Hills, we merely touched at Goa and Beypore, having previously visited Baroda, and went on direct to Ceylon, where we spent a week. His Royal Highness shot some elephants, and had a good opportunity of seeing some of the most interesting and characteristic scenery of Ceylon, as he remained a few days both in Colombo, Kandy, and in the district. The weather was wet, and the atmosphere sultry and damp; but, beyond slight ailments to one or two of the suite, no ill result followed. I am happy to say that his Royal Highness is in capital health and spirits; he enjoys his travels and Indian experiences greatly, and is most loyally and cordially received everywhere. It is to be regretted that this year should have been unpropitious, but there can be no doubt of the existence of epidemic cholera in Southern India, and it was clearly and imperatively necessary that his Royal Highness should not be exposed to any risk. Part of the Madras trip has, therefore, necessarily been abandoned, much to everyone's regret; yet he has seen a good deal too, having visited the three important stations of Tuticorin, Madura, and Trichinopoly, before coming to Madras. He has opened a new line of railway, and laid the foundation-stone of the Madras harbour works, and spent several days in the Presidency. So I think, considering all things, the Madras people are fortunate. We hope to have cooler weather as we get farther north. Hitherto we have seldom had the thermometer under 80°, and the air has been damp and oppressive, though not unhealthy. The Prince has already seen something of Indian sport. Pig-sticking, quail, partridge, snipe, and black buck shooting, and cheetah hunting at Baroda; elephant shooting in Ceylon, and spotted deer shooting at Guindy. The sport in the Terai in February will, I hope, supply his Royal Highness with all that the northern part of India affords. We have yet to meet the tiger, buffalo, and rhinoceros. It is a great source of gratification to all that his Royal Highness has kept so well; and there is every reason to hope that the future will be not less propitious than the past. There can be no doubt that the Prince's visit to India will be productive of great benefit. The chiefs and people will have realised the personal presence of their future sovereign, and there can be no doubt of the loyalty and devotion they have evinced.

THE ROYAL COLLEGE OF SURGEONS.

The Council of the College of Surgeons have, as our readers have learnt from our pages, been actively occupied lately in making various very important changes in the College, and in considering several subjects also upon which no decision has as yet been arrived at. Among the matters before them has been the question of the admission of women to their examinations and qualifications to practise; and we believe this matter is still under consideration, though very nearly ripe for decision. We understand that, some ladies having proposed to offer themselves as candidates for the College certificate of qualification in midwifery, the Council have inquired of their legal advisers whether the College have the right, and if so can be compelled, to admit women to examination, and to grant them certificates if successful. The reply, we believe, was that the College has, under its supplemental charter of 15 Vic., such power, and can be compelled by law to exercise it. But the regulations of the College require candidates for its qualification in midwifery to produce proof "of having completed, at recognised schools, the professional education required of candidates for the diploma of Member," and this women cannot at present do in this country. The law may, however, we understand, be invoked to compel the College to so modify its regulations as to make possible the candidature of women. It seems probable, therefore, that the regulations for candidates for the certificate of qualification in midwifery will be so altered or enlarged as to make it possible for women to be admitted to examination. Supposing a woman is successful, and obtains the midwifery qualification, she will be entitled to registration under the Medical Act (1858), and will be able to practise, and to recover charges for attendance on, midwifery; but her being registered with that qualification only will give her no right to practise anything but midwifery; the Act, section 31, conferring rights only to practise "according to the qualification" or qualifications registered.

The Council have also, we understand, consulted their legal advisers on the larger question of their power or liability to be compelled to admit women to the examinations for the membership and fellowship of the College; and here, we believe, legal opinion is entirely against the women. We understand that it is maintained that all of the charters of the College referring to Members or Fellows use words importing the male sex only; that long-continued and contemporary custom supports the presumption that the founders of the College never intended that women should be capable of becoming Members; and that the President and Council have no power to make any by-laws or regulations contrary or foreign to the constitution of the College. Further, that the College is a corporate and politic body; and legal authority says that woman is incapable of becoming a member of such a body. As, then, the College cannot be compelled by any existing legal process to admit women as Members or Fellows, it seems to follow that the law would not compel the College to admit women to examinations which, even if passed, could not lead to the obtaining of the desired qualifications.

It has been decided, on the recommendation of the Committee on Examinations in Anatomy and Physiology, to increase the time appropriated to physiology at the primary examination for the membership, so as to meet in part the remarks made by the Visitors of Examinations from the General Medical Council. Accordingly, at the approaching examination each candidate will be given ten minutes' *viva voce* examination in physiology; the ten minutes to include, however, the recognition of tissues under the microscope.

THE GRANTHAM DISTRICT HOSPITAL.

This Hospital was opened on January 5 by the Countess Brownlow, in the presence of a large assembly of the inhabitants of the town and neighbourhood, the site on which it was built having been given by Earl Brownlow. After prayers had been offered up, the Lord Bishop of Lincoln gave a short and highly interesting address. The main building of the Hospital consists of a central portion, which contains on the ground floor the operating-room, and matron's sitting-room, kitchen, scullery, and offices; on the first floor, the convalescent room, the matron's bedroom, and three rooms for special cases; and on the second floor, servants' and nurses'

bedrooms, etc. The two wards for male and female patients are situated on the north and south sides of the central portion. The male ward contains eight beds, and the female ward seven beds and two cots; detached from each ward by a lobby is a bath-room, lavatory, and water-closet. The wards are light and well ventilated, having windows on each side and at the end; they are heated by Galton's stoves, and lighted by ventilating gas-lamps. The building has a very comfortable appearance, and, thanks to the liberality of the subscribers, it is thoroughly well furnished throughout. At the extreme end of the ground there is a separate building, intended for the reception of infectious cases; it is constructed to receive five patients, and has a kitchen, bath, and nurses' rooms, etc. Another detached building contains a thoroughly well-appointed laundry and ironing-room, and at the rear of this is the mortuary and post-mortem-room. The drainage of the Hospital has been carried out under the supervision of Mr. Ashby, the Medical Officer of Health of the district. All sink and bath waste-pipes, etc., are properly disconnected from the drains, which are well ventilated, and are connected with the main drainage of the town by a separate sewer of some 300 yards in length. The buildings have a constant supply of water from the Grantham Waterworks Company. There are two hydrants for use in case of fire. As there is an old-established and prosperous self-aiding dispensary in the town, this Hospital is only intended for the reception of in-patients; and the Committee have wisely determined that each patient shall contribute a small weekly sum towards his or her maintenance.

DEATH OF ANOTHER LADY FROM CHLORAL.

Another death is reported from the reckless taking of chloral privately. In this case the victim was a lady of about thirty-five, who resided with her step-father at Exeter. She had, it is said, been in the habit for two years past of taking chloral "to soothe pains in the stomach," and had been repeatedly found lying on the floor in an unconscious state from its effects. The preparation she usually took was that known as "Hunter's solution of chloral," which has been ascertained to contain twenty-five grains of chloral to the drachm, and each bottle contained 300 grains. It is calculated that the deceased took 125 grains within two hours. It is futile to caution those who are in the habit of taking sedative narcotic preparations of the risk of doing so except under medical supervision: the only plan likely to succeed is to place heavy restrictions on their sale.

COLLEGIAL PRIZES.

At the close of the year we drew attention to a subject which has attracted some attention amongst not only the members of the Royal College of Surgeons, but of the profession generally: we allude to the few and diminishing occasions on which the Collegial-Triennial and Jacksonian Prizes have been carried off by its members (who only can compete for these honours). On a perusal of the Calendar of the College, it will be seen either that no dissertations had been received—or, where they had, that no award had been made, in consequence of the essays not possessing sufficient merit — since 1867, with the exception of 1873. In short, it appears that since the prize was founded in 1801 by the generosity of Mr. Samuel Jackson, a member of the College, no dissertations had been received in twenty-five cases, and no award had been made in eighteen, making a total of forty-three. This is no fault of the Council of the College, as the subjects for competition were eminently practical; and when no essays have been received, the same subject has again been offered, as "Diseases of the Skin" in 1818, 1820, and 1822. On the latter occasion it was carried off by the late Mr. Samuel Plumbe. Take another, and by no means a difficult subject, the "Structure and Treatment of Nævi and other Erectile Tumours," in 1838, 1840, 1854; and in 1859 altered to the "Structure and Treatment of Vascular Nævi," with a like sad result; since which it has been withdrawn. The Collegial-Triennial Prize, established by the Council in 1822, has only been carried off six times, the melancholy words "No dissertation" and "No award" occurring eleven times. It therefore appears that the members of the College of the present day do not care to emulate the examples set them by such men as Swan (4), Holmes Coote, Gray, Samuel Cooper, William Lawrence, Joseph Hodgson, Stanley, Stafford, Benjamin Phillips, Crosse, Blizard Curling, Sir Rutherford Alcock (2), Edwards Crisp (2), Callaway, Birkett, Henry Lee, Sir H. Thompson (2), Alfred Poland, Hulke, Wood, Mackenzie, William Adams, Annandale, Heath, etc. In this list will be found the honoured names of men who have since occupied, some who are now occupying, and others likely to obtain, the highest distinctions of their College, as presidents, professors, and examiners.

COOKING FOR THE ARMY.

Whatever may be the changes which now and again occur in the political administration of this country, it must be admitted that in many things, whether Whig or Tory, the Government maintains a fine old conservative doggedness. We are induced to make these remarks through studying an account of Captain Warren's endeavours to introduce an improved system of cooking for the British soldier, by means of his now well-known apparatus. This apparatus has been tried at different stations with results so satisfactory, that whereas a twelve-pound leg of mutton baked in the ordinary way appears on the table with only eight pounds of meat left for consumption, by Captain Warren's method a similar leg, when cooked, presented eleven pounds and a quarter to be demolished; and this with an expenditure of fuel one-half less than the quantity used in the present method of cooking the soldiers' dinner. Moreover, several committees appointed to inquire into the merits of Captain Warren's method have reported upon it in the highest terms of praise, recommending its adoption for army service; the Commander-in-Chief has urged upon the War Office the desirability of its introduction; and the result has been—that the old system remains, whilst Captain Warren, tired out by circumlocution, and utterly disgusted, has retired from the field without the slightest reward for his invention and labours. From our point of view this subject is one of paramount importance. To maintain men in a thorough state of efficiency, and keep the sick-list as low as possible, it is essential that the rations should be well and properly cooked, in a manner which shall be relishing to the soldier; and these conditions are thoroughly realised by Captain Warren's method, in an economical way. Whose fault is it, then, that this new principle of cooking has been shelved? Certainly not the Commander-in-Chief's, who is always ready and willing to listen to anything which will conduce to the welfare of the soldier. We commend the subject to the attention of some member of Parliament, who will do a service to the country by bringing it to the notice of the House at an early date in the forthcoming session.

SUICIDE OF A MEDICAL STUDENT.

On Monday, Dr. Hardwicke held an inquest on the body of a Parsee named Manekje Nasarvaneja Dalat, who was a student at University College Hospital. He was only twenty years of age, and held the Gilchrist £100 Bombay Scholarship. Evidence was given that deceased was found dead in his bed on the previous Thursday morning, and that a tumbler and bottle were on his pillow, both of which contained solution of cyanide of potassium. There was no doubt that deceased committed suicide, but beyond the fact that he has been depressed in mind lately no motive can be assigned for the act.

BRITISH MEDICAL DEFENCE ASSOCIATION.

A BRANCH of the Medical Defence Association has recently been founded at Cinderford, in the Forest of Dean. Nearly all the registered medical men in the district have joined the committee, of which Mr. T. Batten, F.R.C.S., and Justice of the Peace for the county of Gloucester, is the chairman. The *Forester*, in alluding to the formation of the Society, says that it "will tend very much to the preservation of the public from the unscrupulous devices of doctoring impostors. They have already had far too free and unrestrained access to the neighbourhood, and their nostrums have become a rank offence to the proper representatives of medicine and surgery, which it is the privilege of the Foresters to have in the midst of them; and while, on the one hand, the doctors themselves will find the Society a useful weapon for the conservation of their own rights and dignities, the public will also find it well to withdraw and keep its support from the mere empirics and deceivers, for which this Society will have no mercy."

THE HARVEIAN SOCIETY.

ON Thursday evening last, this Society held a *conversazione* in its rooms, which was very well attended. The walls were covered with pictures, pathological drawings, etc., and the Watcombe Terra-Cotta Company exhibited some beautiful specimens of their work. Dr. Broadbent, the retiring President, gave an instructive and interesting address, after which followed the usual vote of thanks to the officers of the Society. From the Treasurer's report the finances of this little West-end Society are in a flourishing condition. The following is the list of officers for the forthcoming year:—*President:* Dr. Cock. *Vice-Presidents:* W. Tilbury Fox, M.D.; T. Carr Jackson, Esq.; Thomas Morton, M.D.; W. F. Teevan, Esq. *Treasurer:* Henry Power, Esq. *Hon. Secretaries:* H. E. Sewill, Esq.; J. Milner Fothergill, M.D. *Council:* W. H. Broadbent, M.D.; G. de G. Griffith, Esq.; J. Lennox Browne, Esq.; W. H. Day, M.D.; John Easton, M.D.; E. Symes Thompson, M.D.; G. G. Gascoyen, Esq.; H. Cripps Lawrence, Esq.; J. Hughlings-Jackson, M.D.; Geo. Eastes, M.B.; Robt. Farquharson, M.D. The following is the list of papers for the second half of the session 1875-6:—January 20, "A Rare Complication of Pregnancy," by Mr. J. Ashburton Thompson. February 3, "On Piles: their Diagnosis and Treatment," by Mr. Alfred Cooper. February 17, "Observations on Tuberculosis in Children, and the Conditions which Resemble it," by Dr. W. H. Day. March 2, "On Pruritus Vulvæ," by Dr. Wiltshire. March 16, "On the Treatment of Neurosal Affections of the Heart," by Dr. J. Milner Fothergill. April 6, "On the Etiology and Treatment of Scrofulous Ophthalmia," by Mr. Cripps Lawrence. April 20, "On the Progress made in the Diagnosis and Treatment of Ovarian Tumours since Ovariotomy became a recognised Operation: What remains still to be done?" by Mr. Knowsley Thornton. May 4, "The Treatment of Gleet," by Mr. W. F. Teevan. May 18, "On the Antiseptic Treatment of Wounds," by Mr. Rickman Godlee.

ARMY MEDICAL OFFICERS AND THEIR SURGICAL INSTRUMENTS.

AN important announcement has been lately promulgated in a circular to the Medical Staff of the Army, which is as follows:—"Medical officers, upon attaining the rank of surgeon-major, will not in future be required to provide at their own cost a capital case of surgical instruments; but it will be incumbent upon all executive medical officers to provide themselves with, and keep up at their own expense, a case of pocket instruments of an authorised pattern, which will be shortly approved. The case will be carried in the regulation pouch." Some years since, the authorities at the Medical Department designed a lighter and cheaper case of instruments, with a view of relieving their officers from a large outlay on promotion, and it is certainly a step in the right direction that the necessity of providing capital instruments has now been entirely removed. It has hitherto been the rule for every officer on entering the service to provide himself with a case of pocket instruments,—so that uniformity of pattern, to enable this case to be carried in the regulation pouch, is all that is now required.

OBSTETRICAL SOCIETY OF LONDON.

THE following is the list of officers and Council proposed for election for the year 1876:—*Honorary President:* Arthur Farre, M.D., F.R.S. *President:* William Overend Priestley, M.D. *Vice-Presidents:* William Frederick Cleveland, M.D.; Thomas F. Grimsdale, Liverpool; Alfred Meadows, M.D.; William Newman, M.D., Stamford; Charles H. F. Routh, M.D.; William Squire, M.D. *Treasurer:* Gustavus C. P. Murray, M.D. *Honorary Secretaries:* Alfred Wiltshire, M.D.; Arthur W. Edis, M.D. *Honorary Librarian:* James H. Aveling, M.D. *Honorary Members of Council:* Henry Oldham, M.D.; Robert Barnes, M.D.; John Hall Davis, M.D.; Graily Hewitt, M.D.; John Braxton Hicks, M.D., F.R.S.; Edward John Tilt, M.D. *Other Members of Council:* George Granville Bantock, M.D.; John Bassett, M.D., Birmingham; William Frederick Butt, L.R.C.P.; Thomas Chambers, M.R.C.P. Ed.; Alfred Lewis Galabin, M.A., M.D.; John H. Galton, M.D.; Clement Godson, M.D.; William Chapman Grigg, M.D.; Thomas Crawford Hayes, M.B.; John Baptiste Potter, M.D.; William Nicholson Price, M.R.C.S., Leeds; George Roper, M.D.; Henry Cooper Rose, M.D.; Arthur B. Steele, L.K.Q.C.P.I., Liverpool; Thomas Taylor, F.R.C.S., Birmingham; John Thorburn, M.D., Manchester; John Williams, M.D.; J. Lucas Worship, Sevenoaks.

BIRMINGHAM AND MIDLAND ASSOCIATION OF HEALTH OFFICERS.

AN Association of Medical Officers of Health for Birmingham and the Midland Counties was inaugurated last week at a meeting held at the Grand Jury Room, in the Public Office, Birmingham. The chair was taken by Dr. Alfred Hill, Medical Officer of Health for Birmingham, and among those present were several gentlemen holding similar offices in other towns. After the objects of the Association had been defined, and a code of rules adopted, the following officers were elected, viz.:—*President:* Dr. A. Hill. *Vice-Presidents:* Dr. Roden, Kidderminster; and Dr. Wilson, Leamington. *Treasurer:* Dr. Hickinbotham, Birmingham. *Secretary:* Dr. Henry May, Birmingham. *Committee:* Mr. J. Manley; Dr. Underhill, Tipton; Dr. J. B. Welch, Birmingham; Mr. Love, Wolverhampton; Mr. Darwen, Birmingham; Dr. Swete, Leamington; Dr. Garman, Wednesbury; Dr. McCully, Lichfield; and Mr. Pitt, Nuneaton. The President afterwards delivered an address, in which he sketched the history of epidemics in England, and contrasted the sanitary condition of the people in the present day with that of our forefathers.

NOTEWORTHY CONDUCT OF A PARISH MIDWIFE.

AT last week's meeting of the Islington Board of Guardians, one of the members proposed that Mrs. Crofts, the parish midwife, whose conduct was referred to in our last issue in connexion with the delivery of an unmarried woman on her premises, should receive one month's notice of discharge at once. Ultimately it was agreed that Mrs. Crofts should attend the next meeting of the Board, and state whatever she may have to say in her defence.

VENTILATION OF SEWERS.—The Local Board of Sidmouth, Devonshire, has recently had under discussion the question as to the best means of ventilating the sewers. At the last meeting of the Board it was decided to adopt the plan proposed by Dr. Pullen, the Medical Officer of Health—viz., to tap the crown of the sewers, and carry shafts from thence to the tops of the chimneys of adjoining houses.

LECTURES ON CLINICAL MEDICINE,

DELIVERED AT THE LARIBOISIÈRE HOSPITAL, PARIS.

By S. JACCOUD, M.D.

TRANSLATED (WITH SPECIAL PERMISSION)

By Mr. C. J. CULLINGWORTH, of Manchester.

CHOREA—RHYTHMIC SPASMS.—II.

(*Continued from page* 691, *vol.* ii. 1875.)

Pathogeny of Chorea—Theory of Capillary Embolism—Examination of this Theory—Nature and Seat of the Lesions—Localisation in the Corpus Striatum—Results of Autopsies—Clinical Facts and Experiments—Apparatus of Motor Co-ordination.

GENTLEMEN,—When, in 1863, Kirkes claimed for cardiac lesions the causal influence hitherto attributed to rheumatism, he did not fail to search for the pathogenic link which made chorea dependent on heart-affections, and he advanced the idea that little particles of fibrin became detached from the affected valves and carried by the blood into the most minute cerebral bloodvessels; and, in support of this suggestion, he brought forward this fact: that in every fatal case which he himself had observed, and in the greater number of those recorded by authors, white softening was found after death, either of the encephalon alone, or of the cord alone, or of both at the same time. This notion has made way, for it is the true origin of a theory the widespread acceptance of which in so short a time may well surprise us.

The facts upon which the theory has been based are, in reality, similar to those brought forward by Kirkes; allowance being made for a shade or two of difference, they may be expressed thus:—After death from chorea there are found mitral lesions, either of old or recent date; and, on the other hand, more or less numerous and extensive softenings in certain districts of the brain, notably in the corpus striatum. Sometimes the capillary embolisms causing the necrobiosis can be detected, at other times they cannot; but their existence may be assumed by reason of the agreement between the lesions in the heart and those in the brain. The first observations to this effect, after those of Kirkes, were made by Broadbent, in a paper presented to the Medical Society of London in 1865 and 1866.(a) These were soon followed by those of Russell and Hughlings-Jackson,(b) who confirm Broadbent's opinion with reference to the localisation of chorea in the corpus striatum and optic thalamus; but Jackson makes one addition: he attributes the changes in these sensomotory ganglia to vascular embolism. About the same time Ogle, Tuckwell, Fox, and Gray published some very careful observations.(c) Analogous cases were met with in Germany, in such number as to win Frerichs over to the theory of capillary embolism of the brain—at least, so we are told by Kretschmer in his inaugural dissertation, which includes the autopsy of three cases of chorea in the female at the Charité in Berlin (Virchow); in all three, extensive anatomical modifications were discovered in the brain and spinal cord.(d)

In the instances to which I have just been alluding, capillary embolism is neither a theory nor a hypothesis,—it is a fact: yet this fact became theory, and very debateable theory, the moment when it was transferred from the domain of anatomy and pathology to that of clinical medicine, and was transformed into a general explanation of the pathogeny of chorea. It is worth while to look into the matter rather more closely; but before entering upon a critical examination of this theory, I purpose to make you acquainted with the arguments advanced in its favour by Broadbent, Russell, Jackson, and Tuckwell. They drew attention, first of all, to the very great frequency of the unilateral form, or hemichorea. That is an indisputable fact. They said that choreic movements have not the character of reflex movements. In this they were less happy. Authors who have localised chorea in the spinal apparatus have not pretended by this that choreic movements were reflex movements; and, on the other hand, in order to distinguish between these two orders of movements, a character is appealed to which I cannot admit—namely, that choreic movements can usually be controlled by the will. Now, that is an absolutely unique and exceptional occurrence; the rule is that the hyperkinesia of chorea is exaggerated by the influence of the will—so much so that if the patient's attention be directed to one of the abnormal movements in particular, and he be desired to make an effort to repress it, that movement immediately becomes more pronounced. Broadbent remarks that in hemichorea, cutaneous anæsthesia, when it exists, occupies the same side as the muscular ataxy, while in unilateral lesions of the cord, in hemiparaplegia, the anæsthesia is situated on the non-paralysed side. Which is, indeed, a fact; but in the case before us it proves nothing, for there is no legitimate analogy between those spinal lesions which produce paralysis, aad those which only interfere with co-ordination without impairing motor transmission.

I pass by several other arguments still less important, and come to the discussion of the theory itself. A preliminary objection might be raised, to the effect that it is only applicable to fatal cases; and that in the much more numerous class of cases which get well, it is not possible to admit capillary embolism of the corpus striatum or optic thalamus. I shall not, however, take advantage of this objection. We know nothing of the tolerance of the corpus striatum, and no more of the limits within which very circumscribed lesions of that organ are reparable; consequently, if the upholders of the theory speak hypothetically when they assert the curability of capillary embolisms, I should none the less do so if I maintained their incurability. It is better, then, to leave this unknown ground, and to introduce more tangible evidence.

The new theory of chorea comprises two propositions that it will be expedient to examine separately: the one refers to the nature of the encephalic lesion itself—that it is a capillary embolism; the other relates to the seat of that lesion—that it resides in the corpus striatum and optic thalamus. It is only necessary to be acquainted with the cases on record in order to feel sure that the first of these propositions does not express a constant fact. Consult the autopsies (and I only speak at this moment of those which are recent and contemporaneous with the theory), and you will already find cases which are incompatible with it. Refer, for instance, to the sixteen post-mortem examinations recorded by Ogle: you will see that lesion of the heart was only present ten times; so that there were, consequently, six cases in which there could not be embolism, because the source of the embolus was wanting. Look, again, at Steiner's three autopsies: there was heart-lesion in one case, and I admit that there might there be embolism, although the record is silent on that point; but in the two others there was no cardiac mischief, and therefore no embolism. Recall to mind the cases published by Spencer and Lawson Tait, which have been already referred to; and those recorded by Barnes, who actually relied upon his autopsies to support him in opposing, before the Obstetrical Society of London, the idea of embolism, and you will have just so many cases to place to the discredit of the theory (*qui font échec à la théorie*). In the case brought before the Medical Society of Vienna in 1868, by Meynert, of a girl of sixteen, in whom menstruation was absent, the cerebral lesions did not consist in embolic necrobiosis, and they extended far beyond the corpus striatum and optic thalamus, and even the island of Reil, being traceable as far as the small nerve-corpuscles composed of grey matter which surround the aqueduct of Sylvius; there were, in addition, changes in the spinal cord; and the record says nothing about lesions of the endocardium.(e)

(a) W. H. Broadbent, "Remarks on the Pathology of Chorea" (*Brit. Med. Jour.*, vol. i. 1869, pp. 345 and 369).

(b) J. Russell, "A Contribution to the Clinical History of Chorea" (*Med. Times and Gaz.*, vol. i. 1868, p. 575). J. Hughlings-Jackson, "Observations on the Physiology and Pathology of Hemichorea" (*Edin. Med. Jour.*, vol. xiv., 1868-9, p. 294); "On the Pathology of Chorea" (*Med. Times and Gaz.*, vol. i. 1869, p. 245).

(c) J. W. Ogle, "Remarks on Chorea Sancti Viti" (*Brit. and For. Med. Chir. Rev.*, vol. xli., London, 1868, pp. 208 and 465). H. M. Tuckwell, "Contributions to the Pathology of Chorea" (*St. Bartholomew's Hosp. Rep.*, vol. v., London, 1869, p. 86). E. L. Fox, Case of Acute Chorea, Cerebral Hæmorrhage, &c., under the care of Dr. E. Long Fox; reported by R. S. Smith (*Med. Times and Gaz.*, vol. ii. 1870, p. 423). E B. Gray, "Fatal Chorea, autopsy, etc." (*Med. Times and Gaz.*, vol ii. 1870, p. 701).

(d) Kretschmer, *Ueber den Veitstanz.* Berlin, 1868.

(e) I cannot reproduce here the extremely minute micrographic description which Meynert has given of these lesions; I only point out their general characters—in the brain, hyaline swelling of certain nerve-corpuscles, with molecular degeneration of the protoplasm; multiple scission and proliferation of the connective corpuscles; scission and sclerosis of a large number of nerve-corpuscles in the grey matter of the island of Reil, of the corpus striatum, of the optic thalamus, of the quadrigeminal tubercles, and of the circumference of the aqueduct of Sylvius. In the spinal cord, fulness and thickening of the vessels, swelling of the interstitial corpuscles in process of scission; in the interior of the antero-lateral column, the trabeculæ of the thickened reticulum consist of granular matter, and present the appearance of slight grey degeneration.—Meynert, "Ueber die geweblichen Veränderungen in den Centralorganen des Nervensystems bei einem Falle von Chorea Minor" (*Allg. Wiener Med. Zeitung*, 1868).

If we turn our attention now to somewhat earlier autopsies, we shall find a good number of them inimical to the English theory, seeing that the lesions were purely spinal. Amongst others, Rokitansky's, Demme's, and Eisenmann's cases were of this class, being characterised by spinal sclerosis in different degrees of development. Finally, in order to exhaust the argument drawn from pathological anatomy, I must again remind you of the not less decisive cases in which post-mortem examination has only revealed insignificant cerebro-spinal congestion, or even less still.(f)

The theory does not hold its ground any better clinically considered, for in a large number of cases of chorea, as we have seen, there is no lesion of the heart. It would, therefore, certainly be incorrect to speak of embolism, unless emboliams be imagined to exist in such numbers that they have removed all traces of previous alteration from the endocardium—a refuge of argument which appears to me untrustworthy. To this objection, which is sufficient to do away with the universality of the theory, there is another difficulty to be added, although entirely forgotten by the upholders of embolism: if there is one fact well established, it is the greater frequency of embolism on the left side. Unilateral chorea or hemichorea ought, then, principally to affect the right side. Now, it is not less certain that hemichorea almost always occurs on the left. If you wish, then, to refer all these cases to lesions of the corpus striatum, you must in the same breath (*du même coup*) arbitrarily admit a formal deviation from the topographic law which governs cerebral embolism.

Thus, gentlemen, the first of the two propositions comprised in the theory cannot be accepted, and Broadbent was well advised when, with more caution than Jackson and Tuckwell, he limited himself to settling the question of seat, without maintaining the constant existence of embolism. Let us see if this second proposition has a better foundation than the first; nothing can be easier to decide. Refer to the autopsies of chorea, and you will find that, in a considerable number of them, lesions of the corpus striatum and optic thalamus were absent, and you will rightly conclude that Broadbent's statement is only true for a certain proportion of cases. On the other hand, the participation of the spinal cord in the production of chorea is proved by several clinical peculiarities upon which I am desirous of fixing your attention. The pains in the back upon which Stiebel so strongly insisted, the so-called choreic points of Triboulet, are phenomena necessarily referable to the spinal axis; they consist, in fact, of pains which occupy various points of the vertebral region, which are either spontaneous, or are felt only when pressure is made in order to discover them; moreover, this pressure causes an immediate exaggeration of the choreic movements, which continues for a more or less lengthened period. These interesting symptoms do not exist—so far as I know, at least,—in all cases of chorea; but when they are present, they at once prove a spinal influence.

However frequently hemichorea may occur, it is for all that not the only form of the disease; double chorea exists. Will an alteration—functional or structural—of both corpora striata be invoked in explanation of this? This point already increases the difficulty. But again, if chorea has its pathogenic seat in the corpus striatum, how happens it that in certain cases—and they are not rare—the muscular ataxy is limited to the extremities, and leaves the face unaffected? The girl in Sainte-Claire ward had, at the time she was admitted, some contortions on the left side of her face; but after a few days' treatment these movements subsided, and the choreic agitation was limited to the extremities.

Lastly, the results of experiment go to show, so far as they are concerned, the impossibility of fixing the locality constantly and exclusively in the corpus striatum. Choreiform movements are sometimes observed in the dog; certainly they do not constitute true chorea, but they are in the same category with epileptiform movements experimentally produced: these do not constitute epilepsy any more than the former constitute chorea, yet for all that they may teach some useful lessons. Well, the experiments of Chauveau, Longet, and Bert establish the fact that choreiform movements take place in the dog after division of the upper portion of the spinal cord; whence it clearly follows that this hyperkinesia, similar in its external characters to that of chorea, is not dependent upon the encephalon. Quite recently, Legros and Onimus repeated these experiments,(g) and after having verified the results announced by their predecessors, and after having shown, on the other hand, that simply laying bare the spinal cord and dividing the posterior roots produce no permanent modification of the choreiform movements, they pointed out a new fact which I take to be most important. These able experimenters cut through a portion of the posterior cornua and columns. The rhythmic movements become weaker; at certain points they even appear to become extinct; but they only cease altogether when the posterior segment of the cord has been entirely removed. It is worthy of remark, gentlemen, that by this operation not only is the posterior spinal system itself removed, but also those elements which, passing through the substance of the cord, connect it with the motor cells of the anterior cornua—that is to say, the system I have spoken of as intermediate. Consider, moreover, that the integrity of these two systems is the indispensable condition of normal motor co-ordination, and you will inevitably come to the conclusion that the pathogenic seat of the choreiform movements is the co-ordinating apparatus contained in the spinal cord—an apparatus which is the result of the anatomical connexion already shown to exist between the posterior system and the anterior. The remarkable experiments of Legros and Onimus afford, then, a striking confirmation of the doctrine which I laid down in 1864 respecting motor co-ordination and its anomalies.(h)

(*To be continued.*)

(f) Quite recently, Dr. Folet—a distinguished Lille physician—has reported the negative autopsy of a man of forty-three, who died from general chorea. Admitting that, in the absence of microscopic examination, the integrity of the nervous centres in this instance may be open to dispute, the case does not lose its significance with regard to the theory under discussion, since "the pericardium and endocardium, carefully examined, presented no trace of old inflammation or rheumatic lesions. The cardiac orifices were perfectly normal."—Folet, "Chorée Vulgaire et Chorée Rhythmique" (*Bulletin Méd. du Nord de la France*, 1872).

(g) C. Legros et E. Onimus, "Recherches sur les Mouvements Choréiformes du Chien" (*Compt.-Rend. Acad. Sc.*, 1870).

(h) S. Jaccoud, "Les Paraplégies et l'Ataxie." Paris, 1864.

AVERAGE COMPOSITION AND QUALITY OF METROPOLITAN WATERS IN 1875.

By HENRY LETHEBY, M.B.

The following are the returns of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	19·78	0·084	0·146	0·002	14·9	3·8
West Middlesex .	19·32	0·044	0·146	0·000	14·5	3·6
Southwark & Vauxhall . . .	19·89	0·082	0·151	0·002	14·8	3·8
Chelsea . . .	19·59	0·077	0·142	0·001	14·8	3·8
Lambeth . . .	19·78	0·085	0·150	0·001	14·8	3·8
Other Companies.						
Kent	28·03	0·007	0·306	0·000	20·9	5·9
New River . .	19·06	0·030	0·147	0·000	14·5	3·4
East London . .	20·70	0·046	0·172	0·001	15·1	3·9

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in the case of all the Thames Companies except the West Middlesex.

These results are the averages of the analysis of the samples of water taken monthly from the mains of the several companies during the year, and they show that the total proportions of solid matter dissolved in the water ave been as follows—namely, 19·67 grains per gallon of the Thames supply, 19·06 grains of the New River supply, 20·7 grains of the East London supply (which is chiefly from the Lea), and 28·03 grains per gallon of the Kent Company's water (which is obtained from deep wells in the chalk). The solid matter consists in all cases of a very large proportion (about two-thirds of the whole) of carbonate of lime with a little carbonate of magnesia, and the other third is composed in nearly equal parts of sulphate of lime, common salt, and nitrate of magnesia. These substances, in the proportion in which they exist in the metropolitan supply, are of prime importance in a dietetical and

sanitary point of view, for experience has shown that waters of a moderate degree of hardness from the presence of calcareous salt are more wholesome than those which are deficient of such substances. It is satisfactory also to know that the water supplied to the metropolis is remarkably free from organic pollution—the nitrogen, for example, which is present as actual or saline ammonia does not exceed the 0·002 of a grain per gallon of water; and in several cases, as in the Kent, the New River, and the West Middlesex Companies' water, it is entirely absent. So also with regard to organic or albuminoid nitrogen, the proportion is exceedingly small, averaging in the case of the Kent Company's water the 0·003 of a grain per gallon; in the West Middlesex and New River Companies' water the 0·004 of a grain; in the East London water the 0·006 of a grain; and in the rest of the companies the 0·007 of a grain. Nitrogen as nitrates ranges from 0·147 of a grain per gallon of the water derived from the Thames to 0·306 of a grain in the deep well waters from the chalk. All these facts, together with the small proportion of alkaline chloride in the water, indicate a remarkable freedom from sewage or other organic pollution; and they fully sustain the high opinion entertained of the wholesome quality of the water supplied to London, as expressed in the reports of the Scientific Commission in 1850, the Select Committee of the House of Commons of 1867, and the Royal Commission on Water Supply in 1869, all of which were especially appointed to investigate the quality of the water supplied to this metropolis. There is, moreover, a remarkable uniformity and constancy of the quality of the water supplied to London. Taking the last five years as an illustration of this, it will be found that the total amount of solid matter in the Thames supply has ranged from a yearly average of 17·98 grains per gallon to 19·67; in the New River water the range has been from 18·52 grains per gallon to 19·22; in the East London from 18·85 grains to 20·74; and in the Kent Company from 27·21 grains per gallon to 28·17. The same is the case with the individual constituents of the water, the most important of which show no sign of increase, but rather of decrease, in their proportions from year to year. If, therefore, in 1867 the Select Committee of the House of Commons were, as they reported, "satisfied that both the quantity and quality of the water supplied from the Thames is so far satisfactory that there is no ground for disturbing the arrangements made under the Act of 1852, and that any attempt to do so would end in entailing a waste of capital and an unnecessary charge upon the owners and occupiers of property in the metropolis," there is manifestly still greater reason to be satisfied with the quality of the water at the present time, when, with more refined processes of chemical analysis, it is found that the water is yearly improving. This will be more evident when the turbidity observed in the water supplied by some of the Thames companies is effectually removed by improved methods of storage and filtration.

The quantity of water daily supplied to the metropolis has ranged from 31·9 gallons per head of the population to 36·9 gallons, the average for the whole year being 33·7 gallons per head per diem. Month by month the proportions have been as follows:—

1875.	Gallons per diem.	Houses supplied.	Gallons per head daily.
January ..	.. 108,399,776	515,292	31·9
February	.. 109,527,033	515,346	32·2
March ..	.. 109,352,343	516,514	32·2
April ..	.. 113,045,907	517,200	32·8
May ..	.. 121,543,736	517,489	35·3
June ..	.. 127,381,916	518,127	36·9
July ..	.. 122,319,088	519,063	35·5
August ..	.. 125,186,742	519,569	36·3
September	.. 117,744,887	521,068	34·2
October ..	.. 117,744,907	521,068	34·2
November	.. 109,998,771	521,336	31·9
December	.. 111,420,340	521,566	32·3
Average..	.. 116,138,787	518,606	33·7

About half of the water is derived from the Thames, about one third from the New River and the Lea, and the rest from deep wells in the chalk. The largest proportion of it—amounting to about 80 per cent.—is used for domestic purposes, and considering the requirements of a household, a daily supply of 26·8 gallons per head of the population, or about 180 gallons per house, is abundantly sufficient for all domestic and sanitary purposes.

FROM ABROAD.

Professor Billroth on "Massage" or Shampooing.

This is the third of a series of interesting papers which Prof. Billroth is publishing in the *Wiener Med. Wochenschrift*, under the title of "A Discussion on some of the Surgical Questions of the day." It is a very common question to have asked one, he observes, what do we think of "massage"; and the name of Dr. Mezger, of Amsterdam, is also commonly associated with the query. In fact, most of the laity, and, probably, many practitioners, regard him as the discoverer of a new method of treatment, which is really as old as surgery itself.

After remarking that this practice was well known to the Greeks and Romans, and that it was pursued empirically in olden times in Germany, first by shepherds and smiths, and afterwards by barber-surgeons, as a means of treating injuries of the limbs (the bone-setters in England even continuing in existence to the present day), observes that in almost all books on diseases of the joints the kneading or "massage" of the limbs is indicated as one of the means of treating distortions—some authors attaching more importance to it than others, just as is also the case in all modes of treatment. It is in France that the literature of this subject is most copious, but by the term "massage" the various writers there do not merely understand kneading and rubbing, but also comprise passive movements, separation of adhesions in the tendinous sheaths or joints, with or without chloroform, and various forms of gymnastics—often obtaining brilliant results by these means, which indeed every surgeon employs in appropriate cases. This also is the case with Mezger at Amsterdam, all these procedures being included under the term "massage." There may not be much in a name, yet it is very evident that the method employed is a far more complex one than would seem to be indicated by the term "kneading." One may pursue any portion of the medical art, as of any other art, with more or less talent, taste, and refinement; and the commonest things may appear, in the hands of a skilful man, as new; while it is of advantage that attention should again be more drawn to the matter. And thus, from time to time, old, half-forgotten remedies and old and little esteemed methods are again brought into repute. Men will now and then be craving for something new; and when there is nothing actually new to satisfy this need, some old thing is brought forth in one form or another, and beautifully dressed up so as to appear as if new.

Is there, then, anything in this "massage"? Certainly there is, even if the procedure be confined to "massage" or kneading alone. Its service is seen when we are able, by pressure and friction, to disperse under the skin the effused mass of blood that has resulted from a blow or a fall; and what takes place with effused blood happens also with infiltrated exudations, and chronic semi-organised new formations. We are now pretty well agreed that the resorption of such infiltrations can only take place by permeable lymphatics, assisted by an energetic circulation in the bloodvessels, especially the small veins; and fluxion excited in the parts by the systematic employment of "massage," and active and passive movements, favours the resorption of the infiltrations that have been thus dispersed. Those cases must be exempted from this mode of treatment in which the pathological process has led to softening of tissues. In these, as a general rule, the walls of the vessels are also softened, and "massage" might give rise to extravasation, inflammation, and the formation of abscess. The procedure, therefore, requires to be employed with great prudence in white swelling; but in pains and stiffness following old injuries and chronic rheumatic inflammation of joints, we are able to act much more boldly, and surprising results may be obtained by perseverance. The least trust is to be placed in this kneading treatment in those articular neuroses in which there is absolutely no objective abnormality to be found, neither swelling nor infiltration being present. "Yet even an example of this, that I had treated myself with no result during five weeks, recovered after another seven weeks under Dr. Mezger's treatment, aided, it is true, by the simultaneous employment of sea-bathing."

Neurosis of the joints, corresponding to the old arthralgia, may exist under the following circumstances:—1. When, after comparatively slight injuries, most intense pains are left behind, which are out of all proportion to the slight amount

of thickening that exists around the joint. 2. When, after the complete subsidence of spontaneous inflammation that has left an insignificant amount of residuary infiltration, such violent pains remain that the individuals are not able to use their extremities. 3. When, although neither inflammation nor injury has preceded, the patients experience such violent pain on attempting to walk (for it is the foot that is generally affected) that they are obliged to give up the attempt. 4. When patients, owing to partial psychical disturbances (as in hysteria and hypochondriasis), at first simulate the pains, afterwards becoming alarmed at their imaginary sufferings, find themselves unable to walk. Any of these conditions may become associated with contractions and convulsions, even of an epileptic form. The first and second of these categories belong to the hyperæsthesiæ. The membranes and ligaments of the joints and the peri-articular tissues have not yet quite recovered their normal conditions; and that dispersion of the infiltration and its resorption, together with a deadening of the sensibility of the parts, may be somewhat aided by massage, accompanied by movements, douches, baths, etc., may be readily believed. But how these operate in the third and fourth categories is hard to understand. Neuroses of the feet, unaccompanied by any other abnormal condition, and unpreceded by inflammation or injury, are met with, for the most part, in chlorotic women and girls; and it is often very difficult to decide whether the pains are actually present or not —a psychological rather than a surgical diagnostical insight here being requisite. It is possible that an anæmic condition of the bones may sometimes be the cause, just as we meet with cephalalgia in cerebral anæmia, anæmia of the finger (in its so-called "sleepiness" and after a cold bath) with pricking pains, and sudden thrombosis of the great arteries of the extremities, with intense pain in the parts beyond the obstruction. How easily, therefore, might individuals having narrow arteries be liable to disturbances in the circulation, giving rise to a localised ischæmia in some of the bones. On this supposition, it is easily understood that rest, ice, and the abstraction of blood, may often increase instead of relieving these pains, while the fluxion produced by "massage" may prove of utility by increasing the energy of the circulation. The vanity of these female patients, leading them to desire being thought an interesting case, often leads to a great prolongation of their treatment, and a change is only wrought when some extraordinary circumstance occurs, *e.g.*, the somewhat rare occurrence of a trip to Amsterdam. "I am convinced that Dr. Mezger, whose skilfulness I do not for a moment question, would require four times the time for the treatment of these cases, if he had to employ the same measures here in Vienna from the commencement. Most of these patients also contribute by their wishes to the occurrence of the cure, for no one willingly returns home confessing that they have employed so many means without deriving any benefit from them; and no one likes to admit that he has, of his own accord, entered upon a speculation that has failed. When patients exhibit inclinations, we should always strongly advise yielding to their wishes, for the appeasing an irritation by something out of the common has often a powerfully calming, psychical, supporting effect upon the general activity of the nervous system, which, in irritable persons, cannot be overrated."

In the cases of simulated articular neuroses, occurring in persons the subjects of partial mental disease, and having an invincible propensity for lying, on any ground or on no ground at all, "massage" is only of service by reason of the personal impression produced by the operator, or of the unusual character of the apparatus employed. Were the application of the tincture of iodine an uncommon procedure, or one that was entirely forbidden, it would become as practically operative in these simulated neuroses as is "massage" at present. It would, however, be unjust to consider "massage," on account of these cases, as a mere psychical or quack remedy. On the contrary, Prof. Billroth states that he can speak very favourably of it, having employed it in his clinic for a long time by the agency of his assistants. As, however, its successful employment requires practice in manipulation, time, perseverance, and a personal interest in the subject, that everyone cannot be expected to feel, he has of late assigned all his cases that seemed likely to benefit by "massage" to Dr. Barbieri, one of his senior and more experienced assistants. A series of remarkably favourable results has been attained, which have far surpassed any expectations that were entertained of the advantages likely to be derivable from the method. Prof. Billroth quite agrees with Prof. v. Langenbeck and Esmarch, that "massage" deserves, in suitable cases, far more consideration than it has hitherto received.

Prize Questions of the Académie des Sciences.

The following are the subjects of some of the prizes as reported in the *Institut* for January 5:—1. The Grand Prize in the Physical Sciences for 1876 (3000 fr.), "The Mode of Distribution of Marine Animals on the Shores of France." 2. The same prize for 1877, "The Comparative Study of the Internal Organisation of the different Edriophthalmatous Crustacea which inhabit the Seas of Europe." 3. The Lacaze Prizes, three in number, 10,000 fr. each, will be decreed in 1876 to the authors of the works or memoirs that have most contributed during the last two years to the progress of physiology, chemistry, and physics. 4. The Jecker Prizes: One or more of these, the value of which is not stated, will be given to one or more works which the Academy considers have most expedited the progress of organic chemistry. 5. The Barbier Annual Prize of 2000 fr., for the author of a valuable discovery in surgical, medical, pharmaceutical, or botanical science. 6. The Desmazières Annual Prize of 1000 fr., for the best work published during the preceding year on the cryptogams. 7. The Thore Prize of 200 fr. is decreed on alternate years to the author of the best memoir on European cellular cryptogams, and on the habits and anatomy of a species of European insects. 8. The Bordin Prize of 3000 fr., to be adjudged in 1877, "A Comparative Study of the Integuments of the Seed in Angiosperms and Gymnosperms"; another prize of the same value will be given also in 1877, "A Comparative Study of the Structure and Development of the Organs of Vegetation in the *Lycopodiacea*." 9. The Bréant Prize of 100,000 fr. still awaits the discoverer of a means of curing Asiatic cholera, the interest of the prize-money in the meantime being paid to those who most promote our knowledge of the cholera or other epidemic diseases. 10. The Chaussier Prize of 10,000 fr. is to be decreed in 1879 to the author of the work which during the four preceding years has most advanced our knowledge of legal medicine or of practical medicine. 11. The Montyon Annual Prizes in Medicine and Surgery (value not stated), for authors of works which have most contributed to the art of healing, and to those who have discovered the means of rendering occupations less unhealthy. 12. The Serres Triennial Prize of 7500 fr., to be adjudged in 1878, "General Embryology, applied as far as possible to Physiology and Medicine." 13. The Godard Annual Prize of 1000 fr., to be accorded to the author of the best memoir on the anatomy, physiology, and pathology of the genito-urinary organs. 14. The Dusgate Quinquennial Prize, to be adjudged in 1880, for "the best work on the diagnostic signs of death, and the means of preventing premature interments." 15. The Montyon Annual Prize of 764 fr., in experimental physiology, will be bestowed on the author of the work that has most contributed to the progress of experimental physiology. 16. The Gegner Annual Prize of 4000 fr. in aid of a poor *savant* who has done important work, and who will thus be better enabled to continue his scientific researches. 17. The Cuvier Triennial Prize of 1500 fr. will be bestowed in 1876 upon the author of the most remarkable work on the animal kingdom or on geology which has appeared during the preceding three years.

The Lacaze Prizes.—These prizes, three in number, of which two were awarded by the Académie des Sciences, as noticed in our last number, were founded by a member of our own profession, Dr. Lacaze, who died recently, the possessor of a large fortune. An assiduous attendant on the lectures of Magendie and C. Bernard, he acquired a strong inclination for experimental physiology, and declared in his will that he believed that medicine will only make advances through the aid of physiology. He accordingly established a biennial prize of 10,000 fr. for experimental physiology, and by a codicil to his will added similar prizes for chemistry and physics. Dr. Lacaze also had the same enlightened passion for the fine arts as he had for science, and bequeathed his gallery of pictures, valued at several million francs, to the Louvre. This is the second distribution of these prizes, the physiological prize having been awarded in the first to M. Marey, and now, on the second occasion, to M. Chauveau—both physiologists having been once fellow-workers in the laboratory of the Ecole Vétérinaire of Lyons.—*Lyon Méd.*, January 9.

REVIEWS.

Statistical Report on the Health of the Navy for the Year 1874. Either from keeping their work well in hand, or may be from greater facilities in getting the facts together, the Report on the Health of the Navy is now published one yoar under another, and at a much earlier date thau that at which the report on the sister-service for the same period is issued. As regards the force employed on the Home Station, there is nothing of a special character to notice; the health of the men was satisfactory. The strength, duly corrected for time, was 22,500, and the total number of cases of disease and injury entered on the sick-list, 20,553, which is in the ratio of 913·4 per 1000 of force, being a reduction, compared with the preceding twelve months, equal to 0·8 per 1000. Of these, 674 were invalided, and 175 died, the former being in the ratio of 29·9, and the latter of 7·7 per 1000. Compared with the preceding twelve months, there was a reduction in the invaliding rate equal to 5·7 per 1000, and an increase in the ratio of mortality to the extent of 1·6 per 1000.

The report further states that it is not considered necessary to occupy space by giving the opinions of medical officers of the navy upon the working of the Contagious Diseases Acts in their bearing on the service. Without exception they bear the highest testimony to the benefits derived from them, and strongly advocate their extension, if possible. A table has been prepared, and is published in this Report, showing the decrease in the ratio of cases of those diseases against which the Acts are more particularly directed from the year 1864 (when they came into operation) to the year 1874, as compared with the ratio of the three years preceding—viz., 1861 to 1863 inclusive. From this table it will be seen that the ratio has been reduced from 104·4 per 1000, the average which obtained from the year 1861 to 1863 inclusive, to 56·0 per 1000, the average ratio for the years 1866 to 1874 inclusive. In 1874 the ratio of disease was 48·6 per 1000, as compared with 104·4 the average ratio for the three years before the Acts came into force.

After testimony of this description, which entirely agrees with the returns published in the Report on the Health of the Army for the year 1873, we should really think the opponents of these Acts will hesitate to assert at their organised meetings that no good has resulted from them.

On the Mediterranean Station some cases of enteric fever occurred, as heretofore, mainly contracted at Malta. An amended scheme of sewerage for the principal towns surrounding Malta Harbour has been approved, and is to be carried into effect at once, which will doubtless prove a boon to the naval force on the station.

The comparative absence of yellow fever from the North American and West Indian Station caused a reduction in the death-rate of the station compared with the previous year to the extent of 7·0 per 1000. On the South-East Coast of America, however, au outbreak of yellow fever of a fatal character caused an increase in the death-rate compared with the preceding year to the extent of 26·1 per 1000.

The operations on the West Coast of Africa and Cape of Good Hope Station in connexion with the Ashantee war, were productive of much invaliding; the ratios of cases entered on the sick-list, and of mortality, were, however, lower than in the preceding year.

The health of the squadron on the East Indian Station was comparatively good, although cases of remittent fever appear to have been of somewhat frequent occurrence amongst the crews of ships employed on the East Coast of Africa. This is mainly due to the large amount of boat and river service in connexion with the efforts for the suppression of the slave trade. Cases of sun-stroke and heat-apoplexy were also rather numerous.

Deputy Inspector-General Dr. Mackay, in submitting this Report to the Director-General of the Medical Department of the Navy, calls attention to the fact that upon the whole the sanitary condition of the service afloat in the year 1874 may be considered very satisfactory. The ratio of cases of disease and injury entered on the sick-list was below that of the preceding year, and, although there was an increase in the ratio of invaliding to the extent of 2·0 per 1000, it was altogether attributable to the exceptional character of the duties devolving on the squadron on the West Coast of Africa. There was also an increase of 1·1 per 1000 in the death-rate, mainly due to the fatal outbreak of yellow fever on the South-East Coast of America, but the ratio of mortality of the total force for 1874 was below that of the average taken for eleven years by 1·5 per 1000.

The appendix contains the usual medical and surgical reports on the Royal Marine divisions, the Dockyards, and the Royal Naval Hospitals, together with some papers communicated by medical officers of the Department. Amongst the latter is a Report on the Physical Geography and Climatology of the Fiji Islands, considered in their bearing on the health of the white population, by Staff-Surgeon Adam B. Messer, M.D., of her Majesty's ship *Pearl*, which contains much valuable and interesting information.

The Report of the Army Medical Department for the Year 1873. The Report on the health of the troops for the year 1873 was issued at the latter end of last month, which just saved its being published three years after date. The volume contains the usual amount and description of information, though it gives the impression of not being quite so bulky as its predecessors. We learn that the average strength of the troops serving in the United Kingdom during the year in question was 88,957; the admissions into hospital in this number were 67,541; the deaths amongst the men admitted into hospital, and those who died out of hospital, were 699; the average number constantly sick was 3334. The ratios per 1000 of the strength represented by these numbers are:—For admissions 759·2, for deaths 7·85, and for constantly sick 37·47. In addition, however, to the foregoing, who are included in tho weekly returns rendered, 92 deaths occurred during the year among men detached from their regiments; and as the average number so detached was 6812, the average strength of the force serving in the United Kingdom was therefore 95,767, and the total number of deaths in it 791, being in the ratio of 8·26 per 1000 men. The ratio of admissions is 25·1 lower than that of the previous year; the ratio of deaths is fractionally 0·31 higher; the ratio of the average number constantly sick is 1·87 per 1000 men lower. All the ratios are lower than those of the average of the period of the four preceding years.

A brief account is given of the outbreak of enteric fever which occurred at the Dartmoor Camp of Exercise. Seven of the regiments there furnished each one case, but in the 19th Hussars thirteen out of the twenty cases occurred. This regiment left Aldershot by rail on July 30, and encamped that night at Duck's Marsh, two miles from Exeter, having passed one night at Moreton Down, and one at Postbridge. On August 2 the regiment encamped at Yannaton Down on Dartmoor. Next day, cases of diarrhœa were reported, but these would seem to have been induced by exposure to wet. So far as was ascertained, enteric fever was not at that time present at Aldershot, either amongst soldiers or civilians. On August 15, after the regiment had been encamped at Yannaton thirteen days, three of the men were attacked with enteric fever; on the 16th a fresh case occurred, on the 18th one, and on the 19th two cases. The regiment was then ordered to shift its quarters to Roborough Downs, where on August 22 two fresh cases were reported. On the 28th, when the Camp of Exercise was broken up, and the 19th Hussars were marching back to Aldershot, another man was attacked; and on September 3, at the Camp, two others—the last of the series. Allowing twelve days as the period of incubation of enteric fever, all the attacks, except the last three, might have been acquired at Yannaton. The cases in the 19th Hussars were not all received from one troop, and contiguity does not appear to have influenced the spread of the disease. The water at Duck's Marsh and at Moreton was taken from neighbouring streams, but whether the water was polluted by sewage from houses or not, is not clear. It seems, therefore, that the regiment must have encamped in a district where enteric fever was rife, and the use by the men either of excrement-polluted water or of infected privies would explain the occurrence of the first cases in the regiment, and their occurrence the succeeding ones.

The ratio of admissions for syphilis is 87·6 per 1000 men, being 7·94 lower than the ratio of 1872. Of the decrease, 7·05 per 1000 men is in primary, and 0·89 in secondary syphilis. A comparative statement is given, showing that a reduction in the ratios of admissions for primary venereal sores on those of 1872 has taken place at ten of the fourteen stations which are placed under the Contagious Diseases Acts, and at first the same number of the stations which are not under the Acts. The ratio of admissions of the average of the whole of the

stations in the first group is fifty, and in the second group 102 per 1000 men. The ratio per 1000 of the number of men constantly sick from primary venereal sores is 4·45 at the subjected stations, and 8·86, or very nearly double, at the unsubjected stations. If, instead of selecting certain stations for the second group, on the principle of taking those only which have had 500 men stationed at them, all the stations of the United Kingdom are arranged in two groups—namely, those subjected to the Acts and those unsubjected,—and a comparison is made, the ratio of admissions for primary venereal sores in the first group is found to be 50·3, and in the second group 80·8 per 1000 of the strength; but it is necessary to point out that this, which at first sight appears a fair comparison, is not really the best, as where the strengths at stations are small, great fluctuations must be expected. Thus, in the group of unsubjected stations taken for the last-made comparison, the ratio of admissions for primary venereal sores in 1873 has varied from 0·0 at Dundee in an average strength of 104 men, to 247·14 at Exeter in an average strength of 417 men. The proper comparison to make in this matter is, therefore, that given in the statement, in which only stations with sufficient numerical strengths are admitted into the group of unsubjected stations.

The remainder of the contents are of the usual description, but the appendix appears to contain more contributions upon the present occasion from military medical officers. Amongst these is a "Report on Hygiene for 1874," by Dr. Parkes, F.R.S., and a "Medical History of the War in the Gold Coast Protectorate in 1873," by Deputy Surgeon-General Sir Anthony D. Home, K.C.B., V.C. We regret that our space does not admit of our noticing these papers upon the present occasion.

Pollution of Rivers: What Means can be adopted to prevent the Pollution of Rivers? By William Hope, V.C. A paper read at the Social Science Congress, Plymouth and Devonport, September, 1872. London. 1873.

Mr. Hope must, without doubt, be credited with one gift which very few people possess—he has the art of making the driest subjects amusing; so that, whether demolishing the theory of an adversary on the debatable arena of sewage utilisation, or propounding some pet scheme of his own, he has the happy power of thoroughly absorbing the attention of the reader. In the above-mentioned pamphlet he shortly, but clearly, reviews the most prominent methods at present recognised for dealing with the sewage question; commencing with the A B C process, which he thoroughly explains, and condemns, until we arrive at the final solution of the difficulty, in the decision of Professor Frankland, that "intermittent downward filtration" will produce the desired putrification, if the powers of the land are not overtaxed, and that the total quantity of sewage which may be purified in the course of a year by one acre of porous earth is enormous. In concluding his address, Mr. Hope explains that he has endeavoured to show that if municipal bodies would only make up their minds to throw over, once and for all, quackery, empiricism, the love of the marvellous, and the so-called "practical man" who has led them such a dance for so many years, and stick to hard facts and sober science, they would find that the sewage question is already solved, and no longer exists.

The Medical Night-Service in Paris.—The new Medical Night-Service came into operation on January 1, all practitioners who had registered their names at the police-stations in the eighty *quartiers* of the capital holding themselves in readiness to repair at any hour of the night (*i.e.*, from 10 p.m. to 7 a.m.) to the residence of any person wishing for their aid. "It was thought" (says the *Union Méd.*, January 8) "that the somewhat shabby remuneration of 10 fr. per visit would not prove sufficiently attractive. Experience, however, has belied this expectation, for in all the *quartiers* the number of registrations is very considerable, as many as from 600 to 700 practitioners having already registered themselves—so that the persons requiring their services will only have an *embarras du choix*. What does this eagerness indicate? It may show a condition of *malaise* and suffering of the Parisian medical body which leads it to accept the most meagre recompense for its thankless services; or it may show that the medical body at Paris, as everywhere else, is always ready to devote itself and make every sacrifice for the public good. We prefer adopting the latter interpretation."

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, January 4.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Annual Report.

The Surgical Secretary read the Annual Report. The number of members had now reached 545; and the financial condition of the Society was excellent. Reference was made to the forthcoming debate on syphilis to be opened by Mr. Hutchinson, and to the general index to the *Transactions*, presented by Dr. Peacock. The Morbid Growths Committee offered a suggestion that other than new growths should be referred to them for examination. The Council did not recommend that the suggestion as to the election of the President annually should be adopted at present.

The adoption of the Report was proposed and seconded by Mr. Wood and Dr. Hilton Fagge respectively.

Debate on Syphilis.

The Surgical Secretary read the abstract of Mr. Hutchinson's address on syphilis, as published in the *Medical Times and Gazette* last week.

Election of Office-bearers.

The officers and Council of the Society for the ensuing year were elected in the course of the evening, as reported last week.

Injury to the Radius.

Mr. Nunn exhibited photographs of an injury to the radius. A strong man fell on the ice, hurt his arm, and was treated by the pistol-splint. When seen by Mr. Nunn he had half an inch of shortening of the affected limb and impaired mobility of the wrist. Mr. Nunn believed that in such cases extension was not sufficiently attended to.

Mr. Wood asked whether the adductant splint had been used, and the President whether Mr. Nunn could demonstrate the exact seat of the injury.

Mr. Nunn replied that the case was not under his care while the arm was splinted. The hand was carried towards the radial border, while the limb was shortened; there was, therefore, probably splitting of the carpal end of the radius.

Rheumatic Gout.

Mr. Nunn also showed photographs of the hands of an old lady affected with rheumatic gout. The fingers and thumb of both hands were distorted with the exception of the ring-finger. Mr. Nunn speculated on the probability of the ring being the cause of the immunity of this finger; he had also seen in a carpenter a similar condition where the only finger unaffected was one that was drawn into the palm by a contracted tendon.

Aneurism of the Mitral Valve.

Dr. Wickham Legg exhibited a heart presenting two aneurisms on the mitral valve, from a man who died with anasarca, granular casts and albuminuria, and acute pulmonary catarrh. A systolic murmur at the apex became double before death. Post-mortem, the kidneys were found contracted; the pericardium partially adherent; the heart much enlarged, especially the left ventricle; the left auricle was studded with large vegetations, and on the mitral valve were two aneurisms opening towards the ventricle, the one as large as a split pea, the other as large as a hempseed. Dr. Legg believed that this lesion was due to ulcerative endocarditis and pressure.

Dr. Greenfield said that endocarditis was not present in all these cases; in aortic regurgitation he had seen the same. Probably the weakest spot yielded before increased pressure.

Aneurism of the Septum Cordis.

Dr. Legg also exhibited a specimen of aneurism of the septum of the heart. A man of sixty died of phthisis and contracted kidney. There was found general atheroma, with aneurism of the iliac artery pressing upon the iliac veins and causing thrombosis as far as the inferior cava. All the valves of the heart were thickened. Below the anterior aortic segments, near the mitral attachment, an aneurismal pouch existed, crossed by pectinate muscular bands. There were no signs of endocarditis around, and imperfect development was the most probable cause.

Dr. Barlow asked whether the patient had suffered from angina pectoris.

Dr. Legg replied that there was no such history.

Displaced Kidney.

Dr. Legg exhibited a third specimen. In the body of a boy of three, who died of tubercular meningitis, the right kidney was found lying on the crest of the ilium on the psoas muscle, the hilus being forwards, and the nutrient artery derived from the aorta. Displacement of the right kidney was very rare, unless acquired; the present specimen was probably congenital in its origin.

Dr. Coupland said he had lately seen a specimen where the right kidney had, as it were, crossed the spine, and was united with the lower end of the left, the ureter recrossing the spine to its own side. As regards movable kidney, it was more common on the right side.

Dr. Hilton Fagge said that movable kidney and displaced kidney were two very different conditions.

The President asked whether movable kidney was common post-mortem; he wished to learn the experience of the Society on this point.

Dr. Greenfield related a case in which a movable abdominal tumour, diagnosed kidney for years, had turned out post-mortem to be a fibroid of the uterus.

Dr. Taylor had seen a case post-mortem a few years ago, in which the hand could be passed nearly behind the kidney, the peritoneum being loose.

Dr. Legg had often seen the kidneys loose and movable in a vertical direction after the removal of the liver.

Dr. Cholmeley said that he had seen cases clinically in which there was unquestionably movable kidney; and he had relieved the patients by appropriate treatment. Yet he had to confess that he had never had an opportunity of verifying his diagnosis post-mortem.

Mr. Wagstaffe and Mr. Nunn said they had never seen a case in the dead subject.

Dr. John Williams believed that the kidney might be movable in the living, and become immovable in the dead, by the solidification of the fat in which it lies. He had seen many cases of movable kidney.

Mr. Warrington Haward hardly believed this possible. The kidney required some force to remove it post-mortem. Yet the kidney could be easily felt during life. He inquired whether symptoms beyond pain were ever produced by handling a floating kidney.

Dr. Greenfield related a case in a woman, in which handling such a tumour caused not only pain, but hæmaturia.

It was subsequently resolved to appoint a special committee to inquire into the matter of floating and displaced kidneys.

Sporadic Cretinism.

Mr. Fletcher Beach showed the trachea and supra-clavicular fatty tumours from a case of this nature, in a girl of eleven who died of pleuro-pneumonia. The child was born in London of healthy parents, and was never abroad; she had fits as a baby, cut no teeth till two years of age, and grew very little at first. The parents were not relations, and not syphilitic; the mother was healthy, and the child was born without instruments. The patient's height was thirty-two inches and three-quarters, and her weight two stone four pounds; she was well nourished. The head was large, measuring six inches and a half in length, ten inches and three-quarters transversely, and nineteen inches and three-eighths in circumference. Neither the anterior fontanelle nor the sutures were quite closed. The teeth were good; the palatal arch was flat. There was no goître, but a swelling over either clavicle. The arms were short and curved; the hands and feet small. There was no sign of rickets. The abdomen was full; the bladder and rectum incontinent. The child could neither stand, walk, nor speak; the countenance was vacant; the temper placid. Post-mortem, the brain weighed thirty-one ounces; it was firm, and the convolutions coarse; there was no excess of fluid. Microscopically, there was no evidence of wasting or of inflammatory change. The thyroid was perfectly absent. The supra-clavicular tumours sent processes upwards and downwards. The thoracic and abdominal viscera were healthy. The base of the skull was peculiar, and closely resembled that described by Dr. Hilton Fagge at the Society two years ago.

Dr. Hilton Fagge remarked that this disease had never been described out of England. The question was whether it was identical with the endemic disease; and he was inclined to believe that it was. But in the endemic form the peculiar supra-clavicular tumours of fat had never been described. Yet it had been shown by Mr. Beach that these might become absorbed when the subject was badly nourished, and so they might be small in the miserable cretins of the mountains. The absence of the thyroid was most remarkable, and ought to be, as a fact, valuable in the solution of the relation of endemic goître to endemic cretinism. Yet, in a case which he had shown, the thyroid was present. He also knew of a cretin without a thyroid, who had a sister with a goître. And he still adhered to the opinion that the difference between endemic goître and cretinism was, that the thyroid acted as a preventive for the first generations.

Dr. Barlow said that he had two cretins under observation at present, and that he did not think the importance of the absence of the thyroid should be pushed too far.

Congenital Malformation of the Aortic Valves.

Dr. Greenfield showed the heart of a man of sixty-eight who had died after primary amputation for a severe railway injury. There were but two aortic valves, the posterior being much enlarged, and the two anterior joined into one. The heart weighed sixteen ounces. The first part of the aortic arch was considerably dilated; both coronary arteries sprang from the anterior sinus. A small spur running up on the anterior valve represented the septum. The age and cystic disease of the kidneys probably accounted for the large size of the heart. This condition of valves had been carefully described by Dr. Peacock, who insisted on its congenital origin.

Dr. Hilton Fagge rejected the idea that all such cases of adherent valves were of congenital origin.

Business.

The usual formal vote of thanks to the retiring officers was passed and duly acknowledged.

Acephalous Fœtus.

Dr. Symes Thompson showed a specimen of this nature, in which the brain was absent and the spinal canal open.

Mr. Warrington Haward related a case in which such a fœtus, delivered by him, breathed for half an hour after birth.

Tumour of Doubtful Nature.

Mr. Waren Tay showed for Mr. Hutchinson a tumour of the lower end of the thigh, removed along with the limb from a man of thirty. The patient had had a chancre and suppurating bubo, but no secondary disease, and three years ago began to suffer from pain at the lower end of the thigh; nine months ago, the end of the femur was enlarged, in spite of mercury and iodide of potassium; nine days ago, he presented himself with a large mass surrounding the lower end of the femur, and abruptly ending about the middle third. After amputation, the tumour was found to grow from the lower end of the femur: it was separated by a capsule from the muscles; the bone was atrophied. A section looked whitish and homogeneous, but it was partly osteoid in the centre. (Referred to the Morbid Growths Committee.)

Tumour of the Sciatic Nerve.

Dr. Coupland showed, for Mr. Balding, of Royston, a tumour, connected with the sciatic nerve, which had been removed by operation from a man of thirty-four. The patient had suffered from pain in the left leg for three years, and within twelve months a swelling at the posterior and lower part of the thigh had made its appearance. This proved to be a growth springing from the sciatic nerve, five inches in length, and of mixed histological characters. The patient remained with his limb paralysed. (Referred to the Morbid Growths Committee.)

Cancer of Both Breasts and Ovaries.

Dr. Coupland also showed specimens of this nature. A female of twenty-four, under Mr. Hulke at the Middlesex Hospital, suffered from tumour of the right breast,—hard, of moderate size, with adherent skin. A second smaller tumour occupied the upper part of the gland; in the axilla was a small but not hard gland. The patient had never nursed with this breast; but some years before, it was the seat of abscess, after her first and only confinement. There was no cancer in the family. The breast and axillary glands were removed, and the patient recovered after an attack of erysipelas. Two months later, two small recurrent nodules had to be removed from the breast; and in the seventh month from the first operation a sudden eruption of nodules took place, involving both breasts and the whole surface of the thoracic parietes. In less than fourteen days the chest became fixed, and respiration impossible, and the woman died asphyxiated. Post-mortem,

the left breast was found uniformly infiltrated with cancer; the pleura, mediastinal glands, and pericardium were affected; both ovaries were converted into a mass of soft cancer; but neither the liver nor the peritoneum was involved. Dr. Coupland drew special attention to the facts that the right breast had never been used for lactation, but had been the seat of abscess; that the patient had been healthy, without hereditary history of cancer; that the operation was successful, yet the recurrence extremely rapid. With respect to the relation of the mammary to the ovarian cancer, the latter was probably as much primary in this case as the former. At the Middlesex Hospital it was found that, out of eighty-nine necropsies on cancer cases, the liver was diseased thirty-five times, the ovary five times—and in three of these double; in but one case was the relation of mammary and ovarian cancer the same as in the present, without direct continuity. The youth of the patient was also remarkable.

Mr. Waren Tay mentioned a case of cancer of both breasts and ovaries in a woman of twenty. The disease was remarkably rapid in its course, occupying six months only. There was extensive visceral cancer.

New Members.

In the course of the evening the following gentlemen were elected members of the Society:—R. S. Fancourt Barnes, M.B.; A. Hughes Bennett, M.D.; Thomas Bond, M.B., F.R.C.S.; James Cossar Ewart, M.B., C.M.; John Gill, M.D.; Bernard Pitts, M.A., M.B.; William E. Ramsden Wood, M.A.

OBITUARY.

JAMES HINTON, M.R.C.S.

Mr. Hinton began studying for the medical profession about 1843, and entered at St. Bartholomew's. Finding he should be ready for examination before the necessary number of years had elapsed, to fill up the time he took a voyage to China (1846-47). He passed in 1848, but, not wishing to settle down at once, undertook the medical charge of a cargo of free negro labourers from Sierra Leone to Jamaica. He employed himself, whilst waiting on the coast, in learning the language of the country, and acquired some practical knowledge of life among savage tribes. He spent a year in Jamaica, interesting himself much in examining the changes wrought in the negro character by contact with the white man; he also employed his knowledge of the language in assisting the negroes to make bargains with their employers. Twenty years afterwards, when in the enjoyment of a high position in his profession, he was deeply touched at receiving proofs that the negroes he had befriended still remembered him with gratitude. He went from Jamaica to New Orleans, and then embarked for England. In 1852 he married, and settled as a surgeon first in Bartholomew-close, and afterwards in Charterhouse-square. During 1855 and 1856 he spent much time with Mr. Toynbee, and undertook the practice at 18, Savile-row, while Mr. Toynbee went abroad, and arranged his museum of cases of ear disease. In these years he also made many of those observations on the frequent occurrence of the spiral form in nature, with which readers of his books are so familiar; and, in the course of his scientific researches, became so profoundly impressed with certain philosophical principles, that he was driven to renounce his practice, and, devoting himself to literature, to give those principles to the world. It was characteristic of Mr. Hinton that he asserted the oneness of life in all its forms, so that the principles which he traced in inanimate nature received their highest application in the moral sphere. It was this that gave to his speculations their intensely practical direction. To whatever topic he might turn his immediate attention—metaphysics, physiology, mathematics, art: and he wrote on all these—the guidance of human life was always present to his thought. His ideal of education was "to teach in all arts the art of living."

In 1859 he published "Man and his Dwelling-place: an Essay towards the Interpretation of Nature." He then went to reside at Tottenham, and the necessity of living by his pen led him to acquire with some labour a more popular style of writing, in which he produced a series of papers for the *Cornhill Magazine*, called "Physiological Riddles," which, with some additions, were afterwards published as "Life in Nature." A small work, "The Mystery of Pain," which has perhaps been more widely read than any of his others, and which exercised a profound influence, was also written at Tottenham, though not published till long afterwards. In 1862 he was induced to return to practice, and, the ear having always received his special attention, he was invited to occupy the recently created chair of Aural Surgery in Guy's Hospital. He then commenced practice, in 1863, in George-street, Hanover-square, and, on Mr. Toynbee's death, took his house and practice at 18, Savile-row. Here he speedily acquired not only an European but also a Transatlantic reputation. Of his skill as an aural surgeon it is perhaps superfluous to speak; but it is not on this that his fame will permanently be based, but on those philosophic and ethical works to which he gave the full force of his powerful and subtle intellect. He had on first returning to practice forced himself to discontinue writing and speaking on the topics most dear to him; but when in full work he returned to them with the ardour of a passion intensified by repression, and continued during the remainder of his life to write down his thoughts on a great variety of subjects, chiefly on ethics, sociology, and art. His premature death prevented him from reducing many of these to a form fit for publication, but it is hoped that much valuable matter will be before long extracted from the mass of his writings by his literary executors, and given to the public.

Mr. Hinton, no doubt, injured his health by the ardour with which he pursued these studies whilst engaged in the conscientious discharge of his surgical duties, but he never appeared in fuller vigour of body and mind than when, to the surprise of all who knew him, except perhaps his inner circle of intimate friends, he quitted the profession that he might devote himself uninterruptedly to the acquisition and the impartation of truth. Before leaving the profession he contributed the results of his valuable experience in his "Questions of Aural Surgery," and the accompanying "Atlas"—a series of paintings of interesting cases—all executed by hand under his supervision. He went out to St. Michael's in October, intending to spend the winter there with a part of his family, but inflammation of the brain set in, and he died on December 16 at Porta Delgada.

MEDICAL NEWS.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Clutton, H. H., B.A., M.R.C.S., L.S.A. — Surgical Registrar, St. Thomas's Hospital, late House-Surgeon.

NAVAL APPOINTMENTS.

Admiralty.—T. A. O'Flaherty, M.D., Staff Surgeon, and W. E. Breton, M.D., Surgeon, to the *Opal*.

BIRTHS.

Ambrose.—On January 4, at Fort Grange, Gosport, the wife of Dr. Ambrose, 58th Regiment, of a son.

Bartlett.—On January 10, at 8, Sydney-place, Onslow-square, S.W., the wife of J. Prime Bartlett, M.R.C.S. Eng., of a son.

Beatson.—On December 14, 1875, at Sitabuldi, the wife of Surgeon-Major W. B. Beatson, M.D., Civil Surgeon of Nagpur, of a daughter.

Iles.—On January 9, at Watford, the wife of Wilson Iles, M.D., of a son.

Ireland.—On January 3, at The Limes, Linton, Cambridgeshire, the wife of Edward Ireland, M.R.C.S. Eng., L.S.A.

Mair.—On January 9, at Egmore House, Ledbury-road, Bayswater, the wife of R. S. Mair, M.D., of a son.

Muir.—On January 9, at Oak Lodge, Blackheath-park, the wife of Sir William M. Muir, K.C.B., Director-General Army Medical Department, of a son.

MARRIAGES.

Batterbury—Joplin.—On January 6, at the Church of All Saints, Debach, Suffolk, Richard Legg Batterbury, M.B. Lond., of Park-road, Haverstock-hill, London, to Laura Elizabeth, third daughter of the Rev. F. Joplin.

Corrie—Johnson.—On January 6, at All Saints' Church, Wath-upon-Dearne, James Johnstone Corrie, M.R.C.S. Eng., to Sarah Anne, eldest daughter of William Johnson, Esq., of Thorn-hill, Wath-upon-Dearne.

Doig—Lindsay-Bucknall.—On January 10, at Huntingtower Cottage, Perth, Alexander Doig, Surgeon A.M.D., to Jane Nina, only daughter of the late John Charles Lindsay-Bucknall, Esq., of Turin Castle, County Mayo.

Hyde—Craigie.—On January 4, at the Church of St. John the Evangelist, Edinburgh, Robert Hyde, Surgeon 1st Royal Scots, to Jane Llewellyn, third surviving daughter of the late General Sir P. E. Craigie, K.C.B.

NOLAN—MUTER.—On January 4, at St. Mary's Church, Bathwick, Bath, William Nolan, M.D., Civil Surgeon, of Aden, to Frances Eliza, eldest daughter of Major-General Muter, Bombay Army (retired).

ROSE—POTTER.—On January 11, at St. Andrew's, Romford, Essex, Frederick John Rose, of Romford, and Cannon-street, City, to Florence, third daughter of Charles Potter, L.S.A., of Romford.

DEATHS.

DENTON, MARIA, wife of S. B. Denton, M.D., at Hornsea, Hull, on January 9.

HARBORD, EDITH WALKER, second daughter of Wm. Harbord, M.R.C.S., of Barkham-street, Wainfleet, at her grandfather's, H. Harbord, Esq., 19, Albion-street, Hull, after three days' illness, on January 4, aged 13.

MCKNIGHT, GEORGE, L.R.C.P., L.S.A., at Mossy Green, Salop, on January 6.

NICOLSON, JANE FRANCES, widow of Thomas Nicolson, M.D., late of Berkeley-square, London, at 24, Albany Villa, Cliftonville, Brighton, on January 2, aged 73.

ROGERS, GEORGE HERBERT, dearly loved child of J. F. Rogers, L.R.C.P., M.R.C.S. Eng., of 117, Old-street, E.C., on January 4, aged 3 years.

SHORTO, WILLIAM BURT, L.K.Q.C.P.I., M.R.C.S. Eng., L.S.A., at Portswood, Southampton, on December 11, 1875, aged 33.

THOMSON, Samuel, M.D., at St. Helier's, Jersey, on December 31, 1875, aged 66.

WINCHESTER, JEAN, wife of W. H. Winchester, F.R.C.S., daughter of the late Col. J. Darymple, of H.M.'s 30th Regiment, at 3, Castlenau-villas, on January 6, aged 66.

WOOTON, FRANCES, widow of John Wooton, M.D., of Balliol College, at the Oratory School, Edgbaston, on January 9.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

DERBYSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates need not possess a qualification. Applications to the Secretary, on or before January 15.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Committee, under cover to the Secretary, on or before January 27.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be unmarried and duly qualified. Applications, with testimonials, to the Secretary, Leith Offices, 34, Moorfields, Liverpool, on or before January 26.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to H. H. Hornby, Esq., 8, Knowsley-buildings, Tithebarn-street, Liverpool.

PARISH OF BIRMINGHAM.—Resident Assistant Workhouse Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Guardians of the Poor of Birmingham, at the Parish Offices, Paradise-street, Birmingham, on or before January 16

SEAMEN'S HOSPITAL, GREENWICH.—Visiting Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before January 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population computed according to the census of 1871.

RESIGNATION.

Whitehaven Union.—Mr. J. Dixon has resigned the Whitehaven District; area 850; population 13,030; salary £58 per annum.

APPOINTMENTS.

Cerne Union.—Robert R. Duke, L.R.C.S. Ire., to the Western District.

Whitehaven Union.—James I. Lace, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Lamplugh District.

Worksop Union.—Hugh E. Walker, M.R.C.S. Eng., L.S.A., to the Whitwell District.

MORTALITY OF HOSPITALS.—It is intimated that James Heywood, Esq., F.R.S., President of the Statistical Society, has given the sum of £20 to be presented with the Howard Medal in November next, for the best essay "On the Mortality of Hospitals (General and Special) in the United Kingdom in times Past and Present." The essays, as already announced, are to be sent in on or before June 30 next.

BEQUESTS OF THE LATE MR. WYNN ELLIS.—The following is a list of the medical charities entitled to bequests under the will of the late Mr. Wynn Ellis, of St. Paul's-churchyard, together with the amount to each:—To the Hospital for Sick Children, including £5000 to the building fund, £15,000; the Kent and Canterbury Hospital and the London Hospital, £5000 each; to the Cancer Hospital, Brompton, and the Royal Free Hospital, £4000 each; to the Metropolitan Convalescent Institute, the National Hospital for the Paralysed and Epileptic, the Royal London Ophthalmic Hospital, the Royal Westminster Ophthalmic Hospital, the Metropolitan Free Hospital, the North London Consumption Hospital, the Brompton Hospital for Diseases of the Chest, the Middlesex Hospital, Kent and Sussex County Hospital, King's College Hospital, Female Lock Hospital, Male Lock Hospital, and the Seaside Convalescent Hospital, £2000 each; and £1000 each to the Hertford Hospital, the City Dispensary, and the Chelsea and Brompton Dispensary.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council yesterday, the 13th inst., Sir James Paget, Bart., F.R.S., the President of the College, was nominated, and consented to deliver the next Hunterian Oration. Dr. George Johnson, F.R.S., Physician to King's College Hospital, was elected an Examiner in Medicine in the vacancy occasioned by the resignation of Dr. Wilks, F.R.S., of Guy's Hospital, and the following members of the College, having been elected Fellows at previous meetings of the Council, were admitted as such, viz.:—Messrs. James Bratton, J.P., L.S.A., Shrewsbury, diploma of membership dated May 20, 1836; and William Nash Spong, L.S.A., Faversham, Kent, August 1, 1842.

THE FRENCH MEDICAL "PATENTE."—Medical practitioners suffer from an annual tax, termed the *patente*, for the liberty of practising their profession, from which we are fortunately exempt. And (according to a correspondent in the *Lyon Médical*, January 2) anyone who chooses to practise a part of the year in another place than his habitual place of abode is liable to a second *patente*, and even a third or fourth, supposing he multiplied his places of practice and affixed his name to his door.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Dyce Brown, Aberdeen.—We shall duly consider the propriety of attending to Dr. Dyce Brown's request.

A Neophyte.—Dr. Blandford's, and Tuke and Bucknill's manuals.

Badge.—The harmless lunatics of Old Bedlam were allowed to go about the country with a tin badge—the Star of St. Bethlehem—on the right arm: a custom long since disused.

L. C. P.—The lines on Dr. Cadogan's (of Charles II.'s time) propensity for shooting are as follows:—

"Doctor, all game you either ought to shun,
Or sport no longer with the unsteady gun;
But, like physicians of undoubted skill,
Gladly attempt what never fails to kill—
Not *lead's* uncertain dross, but physic's dead'y pill."

Horace J.—Dr. Gardner's remark on homœopathy was—"This strange doctrine was only feebly expressed by Lord Jeffery, when he said that an ounce of medicine put into the Rhone at the upper end of the Lake of Geneva would physic all the Calvinists at the lower end."

Dr. P. W.—The Birmingham and Midland Association of Medical Officers of Health have held their first meeting. It took place at Birmingham on the 6th inst. Mutual assistance in the promotion of sanitary science, and the advancement of sanitary science generally, are the objects of the Association.

M. M. O.—"No man deserves a monument who could not be wrapped in a winding-sheet of papers written against him."—*Pope.*

H. Manning.—Cancer of the stomach, like cancer elsewhere, may be considered to be hereditary. Napoleon Bonaparte died of it, as did his father and one of his sisters. The original preparation given by Barry O'Meira to Sir Astley Cooper is in the Museum of the College of Surgeons.

A Provincial Teacher.—The new Board of Examiners of the College of Surgeons will enter on their duties on the 18th inst. The written portion of the examination will take place this day (Saturday). Visitors being Fellows of the College are admitted to the oral examinations.

H. L.—Why is a dead homœopath like a dead duck?—We give it up; but—— perhaps because he has ceased "quacking."

St. George.—The honorary degree of D.C.L. of the University of Oxford was conferred on the late Sir Benjamin Brodie on July 3, 1851.

Sanitas, Colchester.—The recent order issued by the Duke of Cambridge was to the effect that the carcases of dead horses are not to be buried within 200 yards of inhabited buildings, wells, or other source of water-supply, and that, when buried, quick-lime should be put over them.

The Adulteration Act, 1875.—In a case before the Bankruptcy Court last week it was incidentally stated that the stringency with which the Adulteration Act of last session has been put in force has caused many failures in the milk trade.

G. Omer T.—The new hospital erected at Grantham was opened last week.

Dr. Thomas.—In the *Medical Times*, vol. xxiv. p. 75, you will find a short notice on the use of collodium in diseases of the [skin, by Dr. Spengler, who states, also, that for fissures of the nipple, from which so many females suffer, it is a sovereign remedy.

T. H. S.—Who can doubt the assertion of a saint? St. Cyprian said that, when studying magic, "I saw the devil himself, embraced him, conversed with him, and was esteemed one of those who held a principal rank about him." (See the papers referred to on "Dæmonomania.")

COMMUNICATIONS have been received from—

Dr. Jencken, Dublin; Dr. Magrath, Teignmouth; Dr. E. Longton, Southport; Dr. Stewart, Coatbridge; Dr. Gibb, Edinburgh; Dr. J. W. Reid, Evie; Dr. Wall, Fishguard; Surgeon-Major Skues, Portsmouth; Dr. Dyce Brown, Aberdeen; Mr. W. B. Hinton, London; Secretary of the Statistical Society; Secretary of the British Medical Benevolent Fund; A Neophyte; Our Hastings Correspondent; Mr. W. E. Poole, London; Mr. Jonathan Hutchinson, London; Mr. C. J. Cullingworth, Manchester; Mr. F. W. Lowndes, Liverpool; Dr. Ralfe, London; Mr. J. T. Mitchell, London; Mr. J. Chatto, London; Mr. Henry Morris, London; Mr. J. Binks, Wakefield; Mr. Clutton, London; Mr. J. McDonald, London; Dr. Croucher, St. Leonard's-on-Sea; Dr. E. Symes Thompson, London; Dr. W. R. Smith, Aberdeen; Secretary of the Royal Institution; Mr. Shipman, Grantham; Dr. Edis, London; Secretary of the Howard Association; Dr. Hill, Birmingham; Mr. Sewill, London; Our Indian Correspondent.

BOOKS AND PAMPHLETS RECEIVED—

Hassall on Food and its Adulterations—Flint on Phthisis—Royle's Materia Medica, sixth edition, by Harley—Charité Annalen—General Index to the Practitioner, vols. i. to xii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Birmingham Weekly Post—Richmond and Twickenham Times—Hastings and St. Leonard's News—Practitioner—Journal of Anatomy and Physiology, January—City Press—British Architect—Hastings and St. Leonard's Observer.

APPOINTMENTS FOR THE WEEK.

January 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

17. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures—Dr. C. Theodore Williams, "2. On the Influence of Climate in the Treatment of Pulmonary Consumption: the British Health Stations and their results."

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Mr. C. Heath—Artificial Teeth removed from Trachea. Dr. John Williams—The Amyloid Reaction in the Dysmenorrhœal Membrane. Mr. Godlee—Anomalous Blood-Cyst. Mr. Walsham—Fibroma of Ovary. Dr. Greenfield—Stenosis of Mitral and Tricuspid Valves. Dr. Moxon—Pleurisy invading Lymphatics of Lung. Dr. Legg—Cancer of Liver and Pancreas, with Polypi in Portal Vein, etc. Dr. Cayley—Cirrhosis of Liver in Girl aged six. Dr. Cayley (for Mr. G. Brown)—Large Cyst of Choroid Plexus. Dr. Goodhart—Old Injury to Head, with Chronic Hydrocephalus. Mr. Knowsley Thornton—Contents of Dermoid Ovarian Cyst. Mr. Lennox Browne and Dr. Gilbart Smith—Disease of Larynx, with Pressure on Right Inferior Laryngeal Nerve.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Statistical Society, 7¾ p.m. Mr. Robert Baxter, "On the Currency Laws and the Rate of Interest."

19. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Gresham College, 7 p.m. Dr. E. Symes Thompson, "On Stimulants."

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Gresham College, 7 p.m. Dr. E. Symes Thompson, "On the Use and Abuse of Stimulants."

Harveian Society, 8 p.m. Mr. J. Ashburton Thompson, "A Rare Complication of Pregnancy."

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

21. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Tyndall, "The Optical Deportment of the Atmosphere in relation to the Phenomena of Putrefaction."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 8, 1876.

BIRTHS.

Births of Boys, 1251; Girls, 1197; Total, 2448.
Average of 10 corresponding years 1866-75, 2428·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	746	780	1526
Average of the ten years 1866-75	812·3	822·4	1634·7
Average corrected to increased population ...	...	...	1749
Deaths of people aged 80 and upwards ...	...	...	65

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	15	1	10	...	5	1	4
North	751729	...	18	15	3	22	2	6	1	6
Central ...	334369	...	5	6	...	3	...	3	...	3
East	639111	...	8	11	2	18	...	5	1	2
South	967692	...	13	36	2	16	2	4	...	5
Total	3254260	...	55	83	8	69	4	23	3	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·060 in.
Mean temperature	34·8°
Highest point of thermometer	53·9°
Lowest point of thermometer	17·4°
Mean dew-point temperature	31·3°
General direction of wind	Variable.
Whole amount of rain in the week	0·25 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 8, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Jan. 8.	Deaths Registered during the week ending Jan. 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2448	1526	53·9	17·4	34·8	1·56	0·25	0·63
Brighton	100632	42·7	50	26	...	...	...	...	...	...
Portsmouth ...	124867	27·8	71	60	...	...	...	...	...	...
Norwich	83430	11·2	63	29	51·2	25·0	34·4	1·33	0·36	0·91
Plymouth	72230	51·8	51	23	...	...	...	...	...	...
Bristol	199539	44·8	175	96	52·2	24·9	36·9	2·72	0·55	1·40
Wolverhampton ...	72549	21·4	55	37	51·7	23·7	36·4	2·44	0·14	0·36
Birmingham ...	371839	44·3	318	192	53·3	24·0	35·8	2·12	0·16	0·41
Leicester	113581	35·5	101	50	53·0	25·0	35·6	2·01	0·20	0·51
Nottingham ...	93627	46·9	56	38	52·9	27·1	34·9	1·61	0·35	0·89
Liverpool	521544	100·1	428	298	54·0	21·8	38·4	3·55	0·15	0·38
Manchester ...	357917	83·4	309	209	51·7	30·0	39·3	4·06	0·21	0·53
Salford	138425	26·8	157	97	52·2	28·0	38 1	3·29	0·31	0·79
Oldham	88609	19·0	74	50	...	...	...	...	...	...
Bradford	173723	24·1	148	72	51·4	30·8	38·8	3·78	0·25	0·63
Leeds	291580	13·5	247	157	52·0	31·0	38·0	3·33	0·24	0·61
Sheffield	274914	14·0	238	135	55·0	26·0	37·1	2·84	0·27	0·69
Hull	136933	37·7	118	60	48·0	28·0	36·2	2·33	0·41	1·04
Sunderland ...	108343	32·8	87	33	48·0	32·0	38·1	3·39	0·06	0·15
Newcastle-on-Tyne	139929	26·1	104	78	46·0	20·0	36·1	2·28	0·21	0·53
Edinburgh	215146	51·3	141	106	...	...	...	...	...	...
Glasgow	545144	90·4	527	335	50·9	26·5	40·4	4·66	1·00	2·54
Dublin	314666	31·3	183	185	57·1	21·7	42·3	5·73	0·09	0·23
Total of 23 Towns in United Kingdm	8028595	37·7	6149	3892	57·1	17·4	37·3	2·95	0·29	0·74

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·06 in. The highest was 30·27 in. on Thursday morning, and the lowest 29·85 in. on both Sunday and Saturday.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

LECTURES ON INJURIES TO THE HEAD.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital; Surgeon to Moorfields Ophthalmic Hospital and the Hospital for Skin Diseases.

Lecture VI.

ON CONCUSSION OR SHAKE OF BRAIN.

(*Continued from page* 59.)

Concerning the treatment of the first stage of concussion—that of collapse—I have but little to say. The indications are clear, and are now well understood. The patient should be let alone and allowed to rally. This stage is commonly very transitory, and there is rarely any temptation to interfere. If the collapse be extreme, or if it be unusually prolonged, above all, if it appear to be increasing, the exhibition of a diffusive stimulant in the form of an enema will, in some rare instances, be desirable. In all others it will suffice to place the patient in the recumbent position, with the head low, and to apply warmth to the extremities.

During the progress of rallying, when the circulation is gradually being restored, there is nothing to be done.

In taking up the all-important question as to the management of the stage of so-called "reaction," I must venture to combat a widely received opinion as to the existence or even the tendency to any process allied to inflammation. We have seen that the chief phenomena of this stage are all due to arterial paralysis. It is true that there is congestion of the brain, but it is quite passive, and the brain only shares with the other parts of the body. The feet are often quite as hot as is the scalp—indeed, allowing for differences of position and of exposure, I think we might allege that they are almost always proportionately so. There is no *vis a fronte* dragging the blood to the brain, as in a case of inflammation; it is simply that the relaxed bloodvessels are unable to control the supply. Nor, if this state becomes extreme, does it tend to produce inflammatory action. Post-mortem researches, I think, fully show this. We find the brain congested, contused, and it may be softened, but there is no proof of inflammatory effusions. If a portion of brain-substance have been contused and ecchymosed beyond chance of recovery, it softens and disintegrates, much in the same manner as large extravasations of blood into the cellular tissue not infrequently do, producing a grumous fluid, which might easily be mistaken for pus, but which is really very different. There is no lymph on the adjacent arachnoid. Anything like diffuse arachnitis in a case of concussion, even when complicated with most severe contusion, or with fracture of the skull (such fracture not being compound nor involving the ear), I have never seen. Nor have I much knowledge of abscess in the brain, either single or multiple, as the result of concussion. These conditions are probably almost always secondary to inflammation of the bone and arachnoid. We may, therefore, dismiss all idea of either combating existing inflammation or anticipating its advent in cases of concussion. What we have to do is to facilitate the recovery of tone by the vaso-motor nerve, and to prevent the softening of contused portions of the brain. With due regard to the latter point, it is desirable to sustain the patient's strength.

The remedies from which we may select are chiefly—first, those which diminish the temperature of the head; second, those which diminish the quantity of the blood; third, those which place the heart at a disadvantage as regards sending blood into the head; fourth, those which by causing great vascular turgescence at some other part, and also irritation of nerves, tend to diminish the vascular turgescence and nerve-irritation at the affected one; fifth, those which in a direct manner induce contraction of the arterial walls.

First. In order to diminish the temperature of the head, and thus induce contraction of the bloodvessels of the brain, the simple measure of shaving the scalp is of great importance, and, if the weather be cool, will often be quite sufficient to prevent the scalp from ever attaining an undue temperature. In warm weather, however, and whenever the heat of the scalp is well marked, either ice-bladders or evaporating lotions ought to be used. It is interesting to remark here that paralysed and dilated vessels appear to be easily influenced by direct cold; thus a part which, when covered, quickly becomes hot, will cool just as quickly if exposed to cold.

Second. The chief measure by which we diminish the quantities of the circulating fluid is by direct abstraction of it by venesection. Purgation and blistering are other less direct methods of attaining the same end. As regards the influence of venesection upon the passive congestion of the brain, there can, I think, be no doubt that it is often very beneficial. If, however, the brain-substance have been contused, there is risk that softening may follow, and this risk will probably be increased by any measure which diminishes the patient's strength. I have practised venesection in five or six cases of injury to the head, and have seen it employed by others in about as many more.

In the case of a healthy farming man, who had been kicked on the head by a horse, and in whom symptoms of severe concussion were present, we took away about fifteen ounces of blood about ten hours after the accident, when reaction was complete. The man made a good recovery; and, as far as I could appreciate its effect, the remedy seemed to have been useful.

In the case of C., (Case 31) a sailor-lad, who suffered from severe concussion with fracture of the base of the skull, we practised venesection as soon as reaction was complete, on the second day after the accident. Whilst we were bleeding him he spoke for the first time, and he afterwards continued steadily to improve, and made a good recovery. The immediate effect of the bleeding was, however, to make his pulse quicker and more feeble.

In Case 30 we bled a man very freely, who was totally insensible in consequence of severe injuries to the brain. He died in a short time, and my suspicion is that the loss of blood was prejudicial. The man had lacerations of the crus cerebri, and would certainly have died.

In the case of Mrs. F., (Case 60) bleeding was practised when the skin was very hot, on the third day after the accident. She had rallied slowly, and there was every reason to think that the brain was severely injured. After the bleeding her pulse became more rapid and much more feeble, and she sank on the following day.

In the case of W. W., (see page 187, Case 51,) we had to deal with convulsions occurring three days after a simple fracture of the skull, attended by severe laceration of the brain. The venesection did not materially influence the convulsions. His pulse became quicker and more feeble, and death occurred forty-eight hours later.

In the instance of the young sailor (Case 135, page 595), whom I bled to fifteen ounces after eight days of insensibility from concussion, there appeared reason to think that the measure was beneficial; at any rate, it did no harm.

When a student, I well recollect seeing two men bled most profusely on account of convulsions consequent on concussion. In each case the convulsions ceased whilst the blood was flowing, and in each a second venesection within a few hours, on account of recurrence of convulsions, was required. One man lost fifty-four and the other seventy-two ounces of blood within twenty-four hours. Both recovered perfectly, although the effect of the remedy was clearly marked a month afterwards in the extreme pallor which they showed.

In Case 16 a boy was bled about half an hour after concussion, on account of the supervention of insensibility, quickly followed by convulsions. Ten ounces were taken. The convulsions ceased, and consciousness was quickly regained. The boy did well.

In Case 45 (see page 171) a young man was bled from the arm immediately after the accident. He had been almost suffocated, and had also received severe concussion. Convulsions occurred after the bleeding, but in the end he recovered well.

In all the cases in which death occurred, the lesions were such as made the fatal result almost a matter of necessity. Its effect in increasing the rate and diminishing the force of the pulse was, however, decidedly marked in them all.

In the majority of cases of concussion, so serious a remedy as venesection is certainly not requisite. In exceptional cases, however,—those in which the concussion-sleep is unduly prolonged, and those especially in which convulsions occur,—my impression is strong that great benefit frequently accrues from its use. It is necessary to be very careful in the choice

of cases suited for it, for if employed in feeble patients, and in whom the reaction is not vigorous, it may easily extinguish the last chance of life. In cases in which there is any doubt, it may be well to adopt local depletion by cupping or leeches rather than to risk the exhaustion which sometimes follows phlebotomy. Cases in which patients have recovered well from concussion in all its forms, and attended by various complications, without the use of the lancet, are abundant; and very carefully collected evidence will be needed before we are in a position to assert with confidence anything regarding its occasional efficacy.

Under the *third* head, we have chiefly to consider the influence of position. Theory would clearly point to the advisability of keeping patients suffering from passive congestion of the brain in a semi-erect position. There are, however, practical difficulties in carrying this out; and to insist upon it undoubtedly very much increases the patient's restlessness. For anything we know to the contrary, it may be that the state of sleep is the very one in which the brain best recovers from the effect of shake.

Fourthly. As to the good effects of counter-irritation there can be no doubt whatever. I have been accustomed to employ it more freely than is generally done—applying repeated blisters (and very large ones) to the nape of the neck, shoulders, and upper parts of the arms, and often with very marked advantage. Blisters may be used at any time after reaction is established, and may often be continued throughout the whole of the case until the patient is quite free from head symptoms. Patients who have recovered consciousness, but are still suffering from headache and confusion of thought, often speak in the most emphatic manner of the relief which they experience from the influence of a large blister.

It is doubtful whether purgation ought rather to be considered as a form of depletion or as a method of counter-irritation. It is, perhaps, of all remedies, the one most universally and conspicuously beneficial in the treatment of the effects of concussion. I have noted that constipation is a tolerably constant condition during the state of general nervous torpor induced by concussion. Several doses of some brisk purgative are often necessary before the bowels can be got to act, but when they do so a change for the better in the patient's symptoms is almost always remarked. Their mode of influence is probably threefold—first, in removing accumulated matters from the intestinal tube, they do away with what is often a very positive cause of irritation to the vaso-motor system (the ill influence of constipation as regards various nervous functions is a matter of everyday observation); secondly, the effect of a purgative upon the intestinal mucous membrane must be regarded as a very efficient means of counter-irritation; and, lastly, a certain quantity of fluid is evacuated from the blood, without the loss of any of its more valuable constituents.

Lastly, we have to ask whether there are any remedies by which the coats of the arteries may be stimulated and induced to contract. Amongst these, belladonna, of course, first offers itself to our minds. Its influence in dilating the pupil, contracting the bloodvessels, and preventing sleep is well known; and such influence is, according to theory, exactly what is wanted during concussion-stupor. I have, however, no facts to record as to its employment. We may just remark that, as far as theory goes, opium is very decidedly contra-indicated in all cases in which we have to treat the after-effects of concussion.

In addition to the measures of active treatment which we have adverted to, there are certain other negative rules of scarcely less importance. Concussion patients ought to be kept perfectly quiet and free from all excitement. Their diet should be mild and unstimulating. All forms of alcoholic beverages ought to be most carefully excluded.

Having thus discussed the questions of treatment of the concussion state, which I have endeavoured to show constitutes an important element in almost all severe injuries to the head, we have now to consider the classification of the various complications which may attend it, and to attempt some estimate of the relative importance of each. Although it may at first sight seem incongruous to speak of fracture of the skull as a complication of concussion, yet it is so clear, in the majority of cases of simple fracture, that the concussion element is by very far the more important one, that I shall not hesitate to adopt this mode of expression.

The following may be suggested as a convenient mode of grouping all cases in which concussion of the brain is a prominent feature:—

Cases of concussion only.
„ concussion + contusion of the brain, with small hæmorrhagic effusions.
„ concussion + severe contusion, with laceration of the brain, and with large hæmorrhagic effusions.
„ concussion + contusion of brain more or less severe + fracture of the skull.
„ concussion + contusion of brain + local compression of some part of the brain by depressed bone or effused blood.
„ concussion + compression of the whole cerebral mass by effusion of blood.

Amongst the symptoms by which we diagnose most of these complications are the several forms of paralysis.

The notion that paralysis, whether affecting the limbs in the form of hemiplegia, or affecting some single cranial nerve, is indicative of compression of the brain, is one which we cannot too completely put aside. The instances in which compression is productive of any form of unilateral paralysis are certainly most exceptional. Almost all the varieties of local paralysis which are met with as primary results of injuries to the head are dependent either upon contusion and laceration of some part of the brain itself, upon the extravasation of blood into its structure, or upon the laceration of some nerve-trunk. Almost all forms of secondary paralysis—that is, of paralysis coming on some time after the injury—are consequent upon inflammation. When compression of the brain is productive of paralysis, it almost invariably induces complete insensibility, and the result is general paralysis, and not any one-sided lesion. If a patient is perfectly conscious, and yet exhibits a complete local paralysis, it is certain that such paralysis cannot depend on compression, since compression would certainly diffuse its influence by means of the fluid contents of the cranium over the whole cerebral mass.

During the stage of collapse after concussion it is unsafe to make any inferences as to the existence of paralysis, since it is possible that any apparent paralysis which may be present may be due simply to the bloodless condition of the nervous centres. We, however, eagerly seize the first opportunity after the circulation has fully rallied, in order to examine as to the integrity of the different parts of the patient's nervous system. We examine his special senses, the state of his pupils, the condition of the two sides of his face as regards both motion and sensation, and the state of his limbs. In addition to these points, we may also investigate, though with much caution as to our inferences, into the relative condition of the vaso-motor nerve on the two halves of the body—in other words, as to relative temperature.

In almost all injuries to the *surface* of the brain (and these constitute a large majority), the patient will retain power over his sphincters, and over the muscles of his bladder and intestines. Incontinence of fæces and of urine are symptoms rarely met with after injuries to the head, at least, not as persistent ones. If present, they indicate the probability that severe central lesions have occurred. Hemiplegia, in which term I include paralysis of both limbs on one side of the body, and of one-half of the face on the same side, is, however, not infrequent in these cases. It is very rarely complete, and for the most part amounts only to a certain degree of weakness of the parts affected. It differs in some important respects from the form of hemiplegia usually met with in apoplexy.

As Dr. Hughlings-Jackson has pointed out, in the latter form of hemiplegia only a part of the muscles supplied by the facial nerve are involved. It is very rare that the orbicularis oculi is affected; nor in the medical hemiplegia is the function of sensation, either in face or limbs, interfered with to any great extent. In the hemiplegia which we are now considering, however, the whole of the portio dura is involved, and the function of sensation suffers in almost equal degree with that of motion. It is remarkable, also, that although the drawing of the mouth to one side is often a conspicuous feature in medical hemiplegia, it is rarely present in any great degree in the form which we are now considering: the reason of this probably being, that, owing to the concussion of the whole brain, the vigour of the opposite portio dura is also somewhat impaired.

The following cases may be quoted in proof of the assertion that contusion of the surface of the brain may cause hemiplegia, and that the hemiplegia, when due to this cause, will exhibit the peculiarities which I have mentioned.

(*To be continued.*)

ON THE PROSPECT OF A REAPPEARANCE OF PLAGUE

IN THIS COUNTRY AND ON THE CONTINENT OF EUROPE.(a)

By J. NETTEN RADCLIFFE,
President of the Epidemiological Society.

Mr. President and Gentlemen,—The room in which we are now met together has peculiar interest with reference to the subject which I am about to bring before the Society. Few of you who are accustomed to attend the meetings here will have failed to note the date which appears at more than one point of the ornamented ceiling. This date, 1665, is memorable in the history of the Corporation to whom the room belongs,—very memorable in the history of plague in this country, especially in this metropolis.

In that year occurred the greatest of all the outbreaks of plague from which London had suffered. The year, indeed, is especially designated in our local records as the year of "The Great Plague," or of "The Great Pestilence"—an outbreak of the disease remarkable not only from its being the greatest, but also from its being the last, which happened within the Bills of Mortality. In that year, also, the Scottish Corporation, in whose hall we are now assembled, was first formed; and in the memorandum of incorporation which hangs upon the wall yonder, pathetic reference to the awful visitation which befell London during the year is made in the following words:—"The first Master being elected on the 3d October, 1665, and before the Christmas ffollowing the Corporation was much in Debt by reason of maintaining y^e Sicke and burying off y^e Dead in the sad and dismall time of y^e Great Contagion."

Here, then, in this room, of which the associations at once take us back in memory to a period when Plague, which for upwards of a century and a half has disappeared from the country, was domiciled in it as a destructive epidemic, I propose to raise the question of a possible reappearance of the disease. I propose to raise this question, not as a subject of speculative epidemiology, but as a matter of practical consideration, particularly affecting the functions of the members of this Society as well in their individual as their collective capacity. How far I am justified in this course it will be for the Society to determine after I have submitted the reasons which have led me to adopt it. These I now proceed to set forth.

Over 150 years have elapsed since plague disappeared from England, but hardly forty years since it ceased on the Continent of Europe, and in its reputed endemic haunts in Egypt, Syria, and Mesopotamia. During the long period which intervened between the disappearance of the disease from England and its cessation on the continent of Europe and in the Levant, there were numerous widespread outbreaks on the Continent and in the countries bordering the Mediterranean. Some of the gravest of these outbreaks occurred within the present century; but in no instance is it known that the disease reappeared in England. If at any time within this period it showed itself here it did not assume a diffusive form.

After freedom from plague for a century and a half, the disease during the greater part of this time being current in countries with which our own country was in constant communication, it might, perhaps, reasonably be argued that England was plague-proof. Before the proper value to be attached to this argument can be assigned, other facts require consideration.

Plague, it is believed, entirely died out in the East in 1844. Twenty-three years passed, and nothing was heard of the disease in its former haunts in the Levant and Mesopotamia, with one exception. In 1858 a circumscribed outbreak of plague occurred in the district and town of Benghazi, Regency of Tripoli, North Africa. Five years before this outbreak—namely, in 1853—it is now known (the fact having been ascertained in the course of 1874) plague was prevalent in the highlands of the Assyr district, North Yemen, Western Arabia. Writing in 1864 of the remarkable cessation of plague over almost the whole extent of its accustomed haunts in the East, Dr. Gavin Milroy, in his "Sketch of the Geography, etc., of Plague during the Present Century,"(b) presciently observes: "The fact is a curious, but not a singular one in the history of epidemic diseases; nor does this prolonged subsidence warrant the expectation of any permanent extinction of the Oriental plague in the Ottoman dominions—unless, indeed, it be accompanied with a substantial improvement in the sanitary and hygienic condition of the people. . . ."

Three years after this observation was written, the first of a series of outbreaks occurred in the East, the later developments of which have induced me to bring the subject before this Society.

In 1867, after an absence of thirty-three years from the district, plague broke out among the Arab tribes living amidst the great marshes which lie on the west bank of the Euphrates, south of Hillah, and which are overlooked by part of the ruins of ancient Babylon. The population of these marshes and their outskirts is estimated at 50,000. The disease, so far as could be ascertained, appeared in five villages only, having an estimated population of 1000. Beginning in February, it continued to June, and killed, it is believed, 300 persons.

Three years after this outbreak, during the winter of 1870-71, plague appeared in Persian Kurdistan. Here, after the district had been forty years free from the disease, it showed itself in a mountainous district lying south of Lake Urumiah, between the rivers Jagatu and Tatawa, and extended as far south as Bana (Berozeh). The outbreak continued throughout the greater part of 1871, and after its cessation it was found to have affected fourteen towns and villages, inhabited by 1326 families, numbering, probably, 7000 souls. The ascertained attacks of plague amounted to 1120, of which only 229 recovered, 891 ending fatally (79·5 per cent.).

Two years after this outbreak in Persian Kurdistan, plague again appeared on the Lower Euphrates. In the winter of 1873 the disease broke out among the Arabs inhabiting the first marsh of the series of great marshes which lie on the east bank of the Euphrates, south of the ruins of Babylon. This marsh, known as the "Mighty Marsh," lies in part opposite the marshes on the west bank of the river which were the scene of the outbreak in 1867. In 1874 the disease spread beyond the limits of the "Mighty Marsh," attacked towns and villages on both banks of the river, from Divaniyeh to Hillah, and extended westwards to Nedjef (Meshed Ali) and Kerbella (Meshed Hussein), the two towns sacred to the Shiah Mohammedans, which lie on the border of the Syrian desert. The towns on the verge of the district here indicated suffered but slightly. The disease prevailed actively during the first six months of the year, and within this period it is estimated to have caused 4000 deaths among a population of 80,000 or thereabout.

While this outbreak was in progress on the Lower Euphrates, the plague had also shown itself and was prevailing in two other, but distant, localities—one in North Africa, the other in Western Arabia.

In April, 1874, plague declared itself among the nomadic tribes frequenting the hills in the district of Benghazi, North Africa. It is probable that the disease had first appeared several months before, but that its nature had not been recognised. Several encampments and localities were affected, having a total population of 734. The outbreak continued until the close of July, and within a period of three months the ascertained attacks were 533, the ascertained deaths 208. The disease did not spread into the lowlands of Benghazi or affect the town.

In March, 1874, plague broke out among the highlands of the Assyr district, North Yemen, Arabia, and prevailed there until August. The disease extended northwards within four days' journey of Mecca. Very little is known of the sickness and loss of life caused by this outbreak.

The next year (1875), in January, plague again broke out on the Lower Euphrates. It showed itself in this outbreak in the district immediately south of that in which it had been prevalent the previous year, and, spreading on both sides of the Euphrates, it extended over a wider area, and was not less fatal, than in 1874. The loss of life in this outbreak is not yet known, but Surgeon-Major Colvill, the British Residency Surgeon at Bagdad, who visited the district at the time of the outbreak, estimates that the mortality from plague in the two years 1873-74 was 4000—the number stated (as before given)

(a) A paper read before the Society of Medical Officers of Health, January 15, 1876.

(b) *British and Foreign Medico-Chirurgical Review*, vol. xxxiii., p. 460.

in an official report of the outbreak in 1874, prepared for the Ottoman Government, as occurring in that year only.(c)

If, now, we review these recent appearances of plague comparing the later developments with the earlier, and noting the manifestation of the disease at three widely separated points in the East, in 1874, it is difficult to avoid the suspicion that the revived malady may be undergoing a process of development (so to speak), and may possibly become epidemically diffusive, displaying the characters which aforetime marked its progress when current in Europe. There has been nothing comparable with the phenomena I have described in the previous history of plague, so far as I am acquainted with it, which would help us to a more definite judgment in this matter. The wide outbreak of plague which occurred in Eastern Europe, in Syria, Palestine, Egypt, and North-Western Africa during 1812-16 had been preceded by eight or nine years' lull of the disease. So, also, the great activity of the malady which began in Eastern Europe and Turkey in Asia in 1824-25 had been preceded by a lull of from five to six years. But in neither case had the disease ceased in the interval. But the recent appearances of plague have followed upon comparatively long periods of presumably complete cessation in the several districts in which they have occurred, and to the present generation (excluding the consideration of the Pali plague—the Mahamurree of Hindustan), the disease is practically a new one. Our judgment of the probable future of this reappearance of plague must be formed from the facts observed in the different outbreaks described. These, as studied in the detailed official reports on the several outbreaks, leave no doubt in my mind that the disease, in its symptoms, its course, its fatality, and its mode of diffusion, differs in nowise from plague such as it was known in England two centuries ago—such as it occurred in this metropolis in the great outbreak of 1665, and such as characterised it in Europe and the Levant during the past century and early part of the present. The increased diffusiveness of the disease on the Lower Euphrates in 1874-75 as compared with 1867, and its manifestation in three widely separated localities in 1874, suggest that plague may be about to enter upon a new period of epidemic activity. This appears to me, at least, the practical view which should be taken of the question, and this view I submit to you. If I be right, we cannot too early take into consideration the danger to which this country would be exposed from an extension of freshly developed migrating plague in the countries bordering the Mediterranean, and the measures which it might be desirable to adopt to mitigate the danger.

And first as to the danger of this country. If plague should appear in the Levant, it is hardly possible that this country should escape importations of the disease; and this not merely by way of the sea-route, but also by way of the Continent. Newly diffusive plague in the Eastern Levant virtually means also plague in Eastern Europe, from the Morca to the Danube. Quarantine, nay, even an attempted complete stoppage of trade between Turkey in Europe and Greece and Syria and Egypt, would be futile as a measure of safety. For the chances are, on the one hand, that the infection would be communicated before quarantine or the stoppage of trade could be enforced; and, on the other, a contraband trade would be pretty certainly developed in proportion as restrictions upon ordinary trade were attempted to be enforced. Since the last prevalence of plague in the Levant, the whole condition of trade between this country and the Mediterranean, and between Western and Eastern Europe, has been changed. By the intervention of railway traffic, Eastern and Western Europe are now closely linked together, and infectious diseases current in the one are practically current in the other. By steam navigation the facility and frequency of communication between this country and the Continent generally and Syria and Egypt have become enormously increased, and the liability to importation of infection proportionately augmented. I take it, then, that with any serious prevalence of plague in the Levant we could hardly hope to escape importation of the disease, either by way of the Continent, or by way of the sea, or by both ways.

The relations of the easterly countries of the Levant to the district infected with plague on the Lower Euphrates and to the district lately (if not now) infected in North Yemen, may be described briefly as follows:—Passing through the northern limit of the infected district on the Lower Euphrates is the thoroughfare from Northern and Central Persia and the Mohammedan provinces of Caucasia to the cities of Nedjef and Kerbella (sacred to the Shiah Mohammedans, and great centres of pilgrimage) on the border of the Syrian desert. Passing through the south of the infected district is the great thoroughfare from Southern Persia and from Hindustan. Along these thoroughfares many thousands of pilgrims pass to and fro annually, numbers of these, after visiting Nedjef and Kerbella, going onwards to Mecca and Medina by way of Central or Northern Arabia or of Syria. Along the Northern Arabian route cholera was carried from Nedjef by a pilgrim caravan in 1871, and disseminated in the various desert towns, whence it passed to Medina and Mecca and the eastern coast of the Red Sea, and in 1872 was further carried across that sea into Nubia. Plague at Nedjef and Kerbella has ready ways open into Central and Western Arabia, and Mecca would be exposed to danger from this direction, as it is now exposed to any danger lurking in the Assyr country south of the sacred city. The occurrence of plague in Mecca would compromise the whole of Egypt and Nubia; and if its appearance there concurred with the time of pilgrimage, it would scarce be possible (if at all possible) to save Egypt. But the facilities for the conveyance of plague from the Lower Euphrates and the sacred Mohammedan cities there into Syria are greater than into Western Arabia. The routes are more populous, and the conditions for transmitting the disease more favourable. It seems, indeed, probable that an extension of the disease in this direction has already commenced, for since the beginning of the year an outbreak of bubonic disease has been reported in the vicinity of Anah on the Euphrates—a town lying many miles above the scene of last year's outbreak of plague, and the place where the Syrian caravans for Mesopotamia cross the river. If this report be confirmed, and the disease prove to be plague, the malady now exists on one of the high-roads into Syria. Should the disease appear in Syria, we may anticipate that the Levant will be thrown into a panic, and that Western Europe will scarcely escape the infection of alarm. It must be remembered that the horrors of plague in Damascus, Aleppo, Cairo, and other cities in the Levant are comparatively fresh in the memory of the people there, and that the traditional knowledge of the disease which exists in this country differs not a whit from the later experiences of the East. There are probably few persons capable of reading within these islands who are not familiar with Defoe's "Journal of the Plague Year," and whose knowledge of the disease and of its social consequences, when epidemic, is not principally drawn from that book. The reappearance of plague in this kingdom, it is to be inferred, would be hardly less alarming to the mass of our population than its appearance in the Levant would be to Eastern Europe. Few considerations, it appears to me, would

(c) The following is Mr. Colvill's description of the symptoms of plague, as observed on the Lower Euphrates in 1875:—"The symptoms of this disease are fever from twenty-four to thirty hours, but often immediately before that the patient appears more than absent, rushes along the bazaar, speaking to no one, enters his house mechanically, shutting the door, and drops on to his bed as if in despair or wandering in his mind. When fever sets in, the patient becomes stupid, his eyes are red and turbid, and he looks like a drunken man, or he is delirious, and on being asked a question, only answers with a moan. His tongue is swollen, generally blackish-brown, and fissured, sometimes white or yellow. There are invariably sordes about the teeth and gums; the thirst is intense; and in certain cases, if the patient is able to answer, he complains of pain in the epigastrium, as if being stabbed by a knife. In this epidemic there is very little vomiting, though, in certain cases, the patient vomited blood towards the end. The breathing is hurried, and the pulse during the fever stage is very rapid. The urine, as a rule, is natural, often pale and abundant, but as the case goes on he often passes blood from the bladder. There is almost always obstinate constipation, and when diarrhœa appeared it was looked upon as a good sign. When the fever left, the patient burst into a profuse perspiration, and became sensible though very weak. With the fever, or oftener a few hours after it had set in, there was intense pain in the groin, armpit, or neck, and so sudden was the swelling of the lymphatic glands that the attendant often discovered a considerable enlargement on the first complaint of pain, and no case occurred in which the swelling of the glands was absent. The glands in the groin more frequently swelled than anywhere else, next to that in the armpit, the glands of the neck swelling more rarely than any. The glands of one groin, as a rule, swelled, but sometimes in both groins, and indeed anywhere, it was seldom one gland only, but a chain of half-a-dozen, one being larger than the others, round, the size of a walnut, or oval, the size of a pigeon's egg. Petechiæ occurred only in fatal cases, and then only two or three hours before death. Carbuncles did not occur this year, but appeared in Divaniyeh last spring in a certain number of patients, and were looked upon as a good sign. Death occurred from two to seven days, and if the patient survived to the twelfth day, he was considered to have escaped. The mortality in the first half of the epidemic in a village was from 93 to 95 per cent. of those attacked, but during the latter half the greater number of patients recovered; and it is to be remarked, that though plague may be decreasing, and most of the patients be recovering, when the disease is transferred to another village, still that other village fares no better, as if, from some predisposing cause, a certain number of victims are marked out for destruction, while the decrease is due, not to a diminution in the vitality of the disease, but probably to the fact that all those most liable are killed among the first."

so effectually tend to check undue alarm as the knowledge that the medical officers of health had fully considered, in anticipation, the contingency, and were prepared, through their several local authorities, to meet it.

Having regard to the vast social changes which have taken place in this kingdom since plague was a current disease in it, to the present state of our towns, and to the existing sanitary organisation of urban and rural districts, it would seem almost impossible for plague to get a serious hold upon the country, and that imported cases should be other than pathological curiosities. I have, however, no confidence in the population being plague-proof on account of the long immunity of the country, other than as such immunity is secured by the removal of the local conditions which foster plague. But in view of a newly developed infection, of a population wholly virgin to it, and of such grave possibility of unforeseen and exceptional diffusiveness of the infection as was observed in the late small-pox epidemic, it would be a serious error to rest satisfied with inferences from data so insufficient.

I am of opinion, therefore, that it would be well to consider in advance what measures it would be advisable to take should plague be imported into the kingdom.

With reference to these measures, I submit the following suggestions for consideration:—

1. It must be remembered that plague is a quarantinable disease, and on the appearance of the disease in any part of the Levant, the Quarantine Act will come, I believe, *ipso facto*, into operation. The futility of quarantine as a measure of precaution against plague was abundantly shown during the later experiences of the disease in the countries bordering the Mediterranean, before the introduction of steam navigation. The difficulties which interfered with the imposition of an effective quarantine in the days of sailing-vessels have been multiplied indefinitely since the general establishment of steam navigation. There is no need here to discuss this question. Quarantine in this country, as the late Sir Arthur Helps stated, in evidence before the Royal Sanitary Commission of 1869-70, is not a medical but a political question (9383). "It might be advisable," he said, "to keep up regulations as regards quarantine which you could not at all justify medically, but which you could justify commercially and internationally, seeing that our commercial marine would be smitten by most severe regulations in other countries if we did not keep up quarantine here" (9882). A question may, however, arise, whether it would be possible to make some of the provisions of the Quarantine Act (assuming that this Act can be maintained in its present form in face of a new extension of plague) ancillary to the powers entrusted to the Local Government Board.

2. Powers given to the Local Government Board for making regulations for the prevention of the spread of infectious diseases on the seas, rivers, and waters of the United Kingdom, in the first instance under the Quarantine Act, have, in the Public Health Act, 1875, been made a substantive part of our sanitary law. It may be presumed that this power will be exercised upon the same principles in reference to plague as it was in reference to cholera—namely, the detection of the actually sick on shipboard, their removal and isolation, and the disinfection of the ship and of presumably infected things; the healthy, or apparently healthy, passengers and crew going free. A question here arises out of the experience of the existing Regulations of the Local Government Board as to cholera (Order of July 17, 1873), whether it would be desirable or advantageous to impose a period of detention for observation upon the apparently healthy passengers and crews of actually infected ships before permitting them to go free. In both the Thames and the Mersey, during the late prevalence of cholera on the Continent, the local authorities, irrespective of existing laws, subjected, under a belief of its necessity, to short periods of detention the healthy passengers and crews of certain ships infected with cholera, and a very strong feeling prevailed in several quarters of the desirability of powers being given to this end. I have considerable doubt whether any advantage would be gained from the exercise of such a power (except, perhaps, in the case of emigrant ships) at all commensurate with the disturbance of trade to which it might give rise. And certainly no such power, it seems to me, should be entrusted to a local authority unless under condition of proper arrangements having been made not only for the reception of the sick, but also of the healthy.

3. Reserving the question of imposing a period of detention for observation upon the apparently healthy passengers and crews of actually infected ships, my experience of the operation of the regulations issued first by the Privy Council, and afterwards by the Local Government Board, in respect to importation of cholera, have convinced me that they are valuable only so far as they are directed to the discovery of existing disease on shipboard; and that even in this respect their importance is too commonly overrated. I am unable to conceive any practicable arrangement under the conditions of trade in this country by which the channels of infection from without could be closed. The regulations of the Local Government Board may be compared to the strainer which is commonly placed upon the inlet of a water-supply, where the water is diverted from its source to filter-beds. The strainer interrupts and removes some of the grosser filth brought to the inlet, but the real work of purification is effected by the filter-beds. In like manner, the regulations of the Local Government Board admit of the more obvious early instances of infection from without being interrupted and isolated on the coast, and in so far are of the utmost value; but the complete work of prevention must rest with the local authorities in the exercise of the ordinary powers entrusted to them for the limitation of infectious diseases. This view of the question, if I be right, brings my subject especially within the purview of this Society.

If it be asked what powers local authorities possess which would enable them to deal effectually with the contingency of introduction of plague under existing law, I believe that they are ample. I put aside from present consideration, as relating rather to periods of actual prevalence than of prevention, the power which the Local Government Board has derived from the Diseases Prevention Act of 1855, and now incorporated in sections 134-139 of the Public Health Act, 1875, of issuing regulations with respect to certain matters when England appears to be threatened or is affected by any formidable epidemic disease.(d) I limit my observations solely to the provisions of the law (Public Health Act, 1875) relating to current infectious diseases. These, so far as they refer to the supply of hospital accommodation (sec. 131), to the removal of the infectious sick under certain conditions to hospital (sec. 124), to making regulations for removal to and detention in hospital of infected persons brought by ships, to disinfection both of houses and things, and the destruction of certain infected matters (secs. 120, 121, 122, etc.), appear to me to make abundant provision for dealing with first cases of infection, if properly carried into operation. In other words, *the common provision and arrangements which the law aims at securing for the prevention of current infectious diseases in every district of the kingdom, is also the provision which, I believe, is best adapted for arresting the development of foreign infectious diseases, such as plague, if introduced into a community.* From this point of view, English sanitary law stands pre-eminent in its scope and breadth. Nothing, perhaps, ought to avail so much in preventing panic—in view of an extension of plague to this country—as the knowledge that the common sanitary arrangements of a district were so designed by the law as amply to meet the contingency. If these arrangements were universally in operation, plague might be regarded with no more concern than the infectious diseases ordinarily current in the country. Dr. Murchison has said that "typhus is probably the plague of modern times." The two diseases resemble each other in many circumstances, and in none more closely than in the measures requisite for their limitation. What England has effected in respect to typhus, ought, in the present state of our sanitary legislation and organisation, to be as certainly effected in regard to plague, should the necessity unhappily arise. At any rate (if I do not misread the law and the results of experience), it cannot be too early understood that, in respect to plague, if the disease should again reappear in this kingdom, the real work of prevention will rest of necessity with the local authorities, and that this work, in its initial and more important stage, requires from them nothing more than the judicious exercise of the powers entrusted to them by the common sanitary law of the kingdom.

(d) Under this power the Local Government Board may make regulations for the following purposes:—1. For the speedy interment of the dead; 2, for house-to-house visitation; and, 3, for the provision of medical aid and accommodation, for the promotion of cleansing, ventilation, and disinfection, and for guarding against the spread of the disease.

ORIGINAL COMMUNICATIONS.

CASES OF PNEUMATOCELE.

By CHARLES ALLEN FOX, M.R.C.S.

Having met, a few years since, with a somewhat typical case of pneumatocele, or hernia pulmonis, my attention has been directed to those which are now on the records of our art. I have been able to find direct mention of very few, but do not know to what extent such cases are within the knowledge and experience of individual practitioners. I therefore felt that I might not be obtrusive in relating the instance of this lesion which fell beneath my notice, before doing which I would briefly allude to those which I have found recorded.

The first four cases are given in Dr. Cockle's papers in the *Medical Times and Gazette* of January 4 and 11, 1873, on "Intermittent Cervical Hernia of the Lung." They are the following:—

1. A man, aged sixty-three, and asthmatic—the case of Morel-Lavallé—in whom the hernia was bilateral and of the size of a large pear.

2. A woman of forty-five, with a bronchitic cough, having a pneumatocele on the left-hand side resembling a small walnut.

3. A female, from thirty-six to forty years of age, under the care of Dr. Allbutt, who had "two large tumours on each side of the neck," due to bronchitis and emphysema.

4. A still-born fœtus, met with in the practice of Cruveilhier, in whom the protuberance existed on the right side.

All these, however, were cervical, which, doubtless, is the most frequent, or least rare, form of the affection; that is, they were herniæ of the apex pulmonis,—the part where least resistance would be encountered from the anatomical conditions, the lung being in immediate relation with yielding structures, and in a situation where encroachment is easy compared with what it would be at other parts of its surface. Moreover, from its conical shape, it is more likely to insinuate beyond its limits in the clavicular region, its force being *pro tanto* the force of the wedge.

In the fourth case we are necessarily unable to say whether the hernia would have been—or was in uterine life—intermittent. Dr. Cockle, therefore, excludes it when he avers that the other three form the only instances of intermittent cervical hernia in the living subject (as far as he knows) hitherto recorded. Velpeau, however, met with a supra-clavicular hernia in a girl.

But cases have, I am led to suppose, less rarely been met with of infra-clavicular hernia of the lung. I allude now to the upper and anterior region of the thorax. Thus, Dr. Andrew Clark kindly informed me of his having met with such a case—not the vague, extensive, and regular protuberance of emphysema, but the small, circumscribed, and definite one characteristic of pneumatocele. Perhaps it is not unlikely that the local distortion of emphysemata may be occasionally misconstrued as a pulmonary hernia, just as abscesses, large venous varices, and other tumours, have been mistaken for it in the neck.

Although hernia pulmonis may, I believe, occur anywhere in the thoracic parietes, in the lower part of the lung it would seem to be the most unusual. Dr. Wilson Fox has mentioned one case to me as being on record, which, from his recollection of the account, came under this class, and I regret that I have not succeeded in meeting with it. With this exception, I have been unable to hear of any case occurring in the inferior part of the lung, except that of Velpeau, described by Mr. Erichsen, who saw it in his wards at La Charité in 1839. In the subject of this case, a man aged twenty-nine, we find the lesion to have been originally traumatic. He received a sword-wound, says Mr. Erichsen in his work on Surgery, "at the inner side of, and a little below, the left nipple." A fortnight after this, healing took place, and the pneumatocele was observed to have extruded. Here was a tumour of the size of a hen's egg appearing on cough or inspiration, and subsiding with their subsidence.

In the instance which came under my care, and which was in a country district, the patient, a man of between fifty and sixty, was, and had long been, a considerable sufferer from asthma. He had had no injury—at least, none affecting the chest. When he coughed, a soft, circumscribed, and regular swelling, of the size of a small hen's-egg appeared, just above the diaphragm on the left-hand side, and about midway between the sternum and the lateral margin of the thorax. It possessed the feel of those described by previous writers, having the elastic and repellent character of Morel-Lavallé's especially well marked. The patient wore some little band to compress it. It gave him no pain or discomfort, and had been only accidentally discovered by the eye a short time since. It presented no signs of congestion, lobulation, or pulsation, and was not apparently amenable to treatment.

Stoke Newington, N.

THE WORKING OF THE CONTAGIOUS DISEASES ACTS

AT ALDERSHOT, CHATHAM, WINDSOR, PLYMOUTH, DEVONPORT, AND STONEHOUSE.

By FRED. W. LOWNDES, M.R.C.S. Eng.,
Surgeon to the Liverpool Lock Hospital.

Being anxious to learn something from personal observations of the working of the Contagious Diseases Acts, I took advantage of a recent visit to London to see the Lock Hospital in Westbourne-green, which receives patients from the protected districts of Woolwich and Greenwich. I also visited Aldershot, Windsor, Chatham, and subsequently Plymouth and Devonport. All of these places are under the Acts, and I was enabled, by permission of the Inspector of Certified Hospitals, to see the arrangements made for the periodical examinations, the hospitals, and other provisions for their successful working. As many of these are common to all the protected districts, I will note these first, and afterwards those of more special local interest in their respective districts.

The Hospitals.—I was greatly struck with one circumstance which presented itself very strongly in each hospital—viz., the number of empty beds. Formerly these hospitals, even with a gradually increased number of beds up to their present total, were too small, and the most severe cases had to be selected and admitted. But the work done has for somo time been telling, and venereal diseases are being gradually stamped out of all these districts. The following summary will show this. The first column shows the total number of beds, the second those occupied at the date of my visit:—

	Total.	Occupied.
London Female Lock Hospital (Government Side)	76	23
Aldershot	100	37
Chatham	68	23
Royal Albert Hospital, Devonport	162	44
Totals	406	127

This is a great encouragement to those who advocate extension of the Acts, as it removes one very formidable objection—that of expense. It is not necessary to erect large permanent Lock hospitals; a small one will suffice, with temporary wards at first for the large proportion of diseased prostitutes which will always be found in any unprotected district on the first introduction of the Acts. Another very remarkable circumstance, which at once arrested my attention, was that, with the exception of one or two at each hospital, all the patients were able to be up and about, suggesting that the great majority were suffering from very mild forms of disease, which proved on inquiry to be the case. I was informed that cases of secondary and tertiary syphilis are now comparatively rare; gonorrhœa and simple sores comprise the greater proportion, with now and then a case of primary syphilis. The most scrupulous cleanliness and order prevailed in all the hospitals; the patients were most respectful in their demeanour, and, considering who they were and from whence they came, I could not help contrasting their appearance with the wretched creatures I have described in my last paper as haunting the lower parts of this town, and (as I feel sure) to be found in all seaports. As I went through these hospitals I asked myself the question, "But for the greatly maligned Contagious Diseases Acts, where would these women be?" Where indeed! For we might have waited long for voluntary efforts to provide even the hospital buildings and beds; while as for maintaining them in anything like proper efficiency, this would have been hopeless. And even had this been done, voluntary

efforts could never have brought these women in soon enough, nor always induced them to stay long enough. If, therefore, these Acts had done nothing else except provide hospital accommodation in something like proportion to its requirements, they are deserving of the greatest credit. But, as we shall see, they have done a great deal more.

In all the hospitals there is a chapel, which, without excessive adornment, is made to resemble a chapel, and is not, as is too often the case in hospitals, merely a room where prayers are said. The efforts of the chaplain and matrons, in inducing inmates to abandon their present mode of life, and to return home to friends or enter a refuge, are attended with the greatest success; and though the duties of the medical officers are necessarily of a more strictly professional nature, yet their assistance in the work of reformation is of no small importance, and many an "unfortunate" owes her restoration to the paths of virtue to the kind words spoken in the examination-room.

The arrangements made for the periodical examination were most complete—calculated to insure the most perfect privacy, and with every regard to the feelings and comfort of the women. The waiting-rooms at Aldershot, Chatham, Plymouth, and Devonport are large and thoroughly convenient, and the first object observed was a large notice, explaining fully how each woman might obtain her release from the examination by applying to the visiting surgeon; who, if satisfied by inquiry that she had abandoned prostitution, would direct that she should be relieved from further periodical examination. In the examining-room I found every arrangement for securing sufficient light; ample means for the perfect cleansing and disinfecting of instruments; the couch on which the women are placed is made comfortable with cushions, while so arranged as to afford at once, and without difficulty, a perfectly satisfactory view of the genitals. The rule which permits no one to be present except the nurse is absolute, and I was informed previously that I could not witness the examinations, at which, knowing the importance of this rule, I did not expect to be present.

At Aldershot there were on the day of my visit 200 women on the register, and of this number Dr. Barr informed me forty-three came up for examination on that day, of whom only seven were found diseased, six with gonorrhœa, one with a soft sore which was healed in less than a week. Dr. Barr also stated that there was very little difficulty in getting the women to come up for examination; that they presented themselves much cleaner and tidier than formerly, and that they thoroughly understood that the examination and detention in hospital were for their benefit. He also informed me of a circumstance which I can very readily believe—viz., that the most severe and almost the only severe cases of disease came from unprotected districts. The hospital, though not originally built as such, is most complete in all its details, and everything is done for the moral as well as the physical welfare of the patients during their detention in hospital. There were only thirty-seven patients in on the day of my visit, not one of whom was confined to bed; and the cases were, with the exception of one recent arrival, of the mildest form. As the hospital is in close proximity to the camp, Dr. Barr is easily enabled to learn from time to time the extent of venereal disease among the troops stationed there, and in a letter I lately received from him he informed me that in a strength of 12,000 men there had only been three cases of primary sores admitted into the military hospitals during the first week of the present month of November.

The Female Lock Hospital, in Westbourne-green, receives (as is well known) both voluntary and Government patients. Formerly, the latter came from many distant places; since the end of the year 1873, only those from Woolwich and Greenwich have been received. Partly from this circumstance, partly also from the diminution of the disease which has taken place in all the protected districts, and which proves very conclusively how carefully these Acts have been administered, the numbers on the Government side have been gradually diminishing year by year. Mr. G. H. Bishop, the House-Surgeon, kindly showed me through the Hospital, and gave me every information I required. There were only twenty-three patients on the Government and thirty-three on the voluntary side at the time of my visit, leaving the large number of fifty-seven beds unoccupied on the voluntary, and fifty-three on the Government side—110 in all. This fact is very suggestive as to the respective merits of the voluntary and compulsory systems. It would be perfectly absurd to suppose that the thirty-three voluntary patients represented the whole number who ought to have been there, if it be true, as has been so positively asserted, that, were free voluntary Lock Hospitals established, prostitutes with venereal disease would readily enter them. Here is a free voluntary hospital, with ninety free beds, only about a third of which are occupied. On the other hand, of the seventy-six Government beds, we find only twenty-three occupied, though the Acts are regularly enforced at Woolwich and Greenwich, and all prostitutes found to be diseased sent here. The fifty-three beds on the Government side were empty because there were no patients for them; the fifty-seven on the voluntary side were unoccupied, in spite of there being within a very short radius of the Hospital (say two miles) many most suitable patients for each empty bed. Were London made a protected district, and the whole of this Hospital available for metropolitan patients, it may be safely predicted that for months to come there would be no empty beds. Mr. Bishop kindly gave me the following statistics of Government patients:—In 1871 there were 422; in 1872, 418; in 1873, 318; in 1874, 283; and in 1875, up to the end of September, 188. In the year 1871, twenty-one patients came from Dover, Deal, and Shorncliffe; in 1872, 106 came from the same places, and also Chatham, Maidstone, Gravesend, and Canterbury; in 1873, forty-six came from Aldershot, Dover, Deal, Winchester, and Windsor. The hospitals at Chatham and Aldershot now receive patients from most of the above places. This Hospital, as we have seen now, only receives from Greenwich and Woolwich. The patients on the Government side were suffering from very mild forms of the disease; and the most severe case I saw was that of a married woman on the voluntary side, the subject of tertiary syphilis of a most advanced form. The greater part of the nose was gone, and she was covered with rupia. Some of the worst cases we have had in the Hospital here have been in married women.

At Windsor there was no Lock Hospital to see, but I had the pleasure of a long conversation with Mr. Pearl, the Visiting Surgeon, who kindly showed me his book giving the results of the periodical examinations, and gave me other most useful information. During the three months ending June, 1869, there were 125 examinations, and out of these there were seven cases of syphilis and eleven of gonorrhœa. Though subsequently the number of examinations was as many as 174 in a quarter, the cases of syphilis never exceeded eight, nor those of gonorrhœa thirteen in number; while the number of examinations has fallen as low as ninety-eight, the cases of syphilis to one, and of gonorrhœa none. Mr. Pearl and his deputy Dr. Gooch, with whom I had also an opportunity of conversing, assured me that the physical benefits of the Acts on the women were most marked, and the benefits to the town were so great, as shown by the improved state of the streets, that with very few exceptions all the leading inhabitants signed a memorial against their repeal. The reduction of disease among the soldiers stationed at Windsor is so well known that I need not repeat it here. A very striking proof of the influence of the legislation was shown when it became necessary to suspend the examinations for a month in consequence of an outbreak of small-pox at Windsor. It was obviously desirable not to expose the patients in hospital to the risks to which they would be liable by the admission of patients from an infected neighbourhood, so the Acts were suspended for a month. When the examinations were resumed, there was for some time a marked increase in the proportionate numbers of syphilis and gonorrhœa, which, however, were soon again reduced to a minimum. Considering the proximity of Windsor to London and other unprotected districts, the results of the Acts must be allowed to be very satisfactory.

At Chatham there is a Lock Hospital erected by the Government which contains sixty-eight beds, only twenty-three of which were occupied on the day of my visit. I was kindly conducted by the Lady Superintendent, Miss Webb, through the Hospital, which has all the advantages of modern construction and the most excellent management. There is a building separated from the Hospital containing two separate wards, each for a single inmate, and these are found very useful in cases of noisy or troublesome patients. A few nights' stay here generally brings them to reason, and they beg to be allowed to return to the larger ward. In voluntary hospitals the only punishment for such conduct is dismissal—a terrible evil, which in some cases is inevitable. Miss Webb assured me that the efforts at reformation, both by the chaplain and herself, were most satisfactory, and that in four years 297

patients were sent to their friends and to homes, and of these only sixty-seven came back. Later on, I saw Dr. Jardine, who, with Dr. Weld, has charge of the Hospital, and conducts the periodical examinations. Dr. Jardine informed me that the reduction of these diseases in Chatham had been most marked, and that the Acts had worked exceedingly well. Their benefits were felt by the civil population as well as by the soldiers and the prostitutes. The Hospital receives its patients from Chatham and its vicinity, Sheerness, Canterbury, Gravesend, and Maidstone. In consequence of patients having been received from an increased area of late years, the numbers have fluctuated, but there is every reason to expect a great reduction in the future. Those for the last four years are—1871, 565; 1872, 676; 1873, 662; 1874, 578. Of the twenty-three patients in hospital on the day of my visit, there was only one who was obliged to keep her bed.

Plymouth, Devonport, and Stonehouse.—Plymouth resembles Liverpool in being a seaport and a maritime thoroughfare, and I was greatly interested to see the working of the Acts in it and the Royal Albert Hospital, which is, I believe, the largest Lock Hospital in the kingdom. I was conducted through it by Mr. Thom, the House-Surgeon, who most kindly showed me every part, and gave me the fullest information. There are 162 beds, and of these only forty-eight were occupied, the cases being here of a very mild character. The beds had to be gradually increased from thirty-eight up to their present number, and were for some time quite filled. But soon the work began to tell, and three large wards were closed, and will probably not be needed till the Acts are extended to a larger area. For drunken or disorderly patients six comfortable rooms are provided separate from the Hospital, where they can be secluded with safety to themselves and comfort to the other patients. Miss Farrow, the Lady Superintendent, gave me a very satisfactory account of the work done in reforming patients, and stated that any woman who has been in the Hospital and returned to her former mode of life will at any hour be received into the Hospital till such time as a refuge can be found for her. Dr. Archer, the Visiting Surgeon, showed me the examination-rooms, both at Devonport and Plymouth, which were most conveniently situated, the former opposite the Hospital, the latter in a central situation, with a separate entrance for the women. Dr. Archer's description, contrasting the severity of the cases he at first examined with those he sees now, was very interesting, and confirms what all who attend voluntary Lock hospitals must know. So far from the women considering these examinations a hardship, he stated that it was not at all uncommon for a woman to come up before her time voluntarily when she believed herself to be diseased. In the fifteen months, from October 1, 1866, and December 31, 1867, out of 462 women examined, only thirty-one were found free from disease, while now the records show long series of cases without one of disease. As I was very desirous of knowing something of the police arrangements, which have been so especially well conducted here, Dr. Archer introduced me, at my request, to Inspector Anniss, who, in the most civil and obliging manner, showed me his books, many valuable statistics and returns, and also conducted me on a tour of inspection of the streets that evening. As it was my first visit to Plymouth, I could make no comparison between its former and present state; but, from what I have heard from professional and other friends who remember it of old, it must have been worse than the worst part of Liverpool. This much I may say—I could hardly realise the fact that I was in a sea-port. Mr. Anniss showed me numerous dark, narrow streets of small houses, which he assured me were formerly all brothels; now they were as quiet and orderly as could be desired. There were none of those crowds of drunken seamen and low prostitutes which one sees in most sea-ports; and even in those streets where brothels now exist, the most perfect quiet and order prevailed, and no noise nor disorder was to be heard from any of the houses. Formerly there would be nearly a dozen prostitutes in one brothel, and several in one room with their male companions; now brothel-keepers are forbidden to allow more than one woman in a room; and it cannot be doubted that such regulations for these unfortunate women are of benefit. There is always a hope for those in whom a sense of decency can be maintained; but for the drunken prostitute, from whom every atom of decency has been stamped out, there is little or no hope. Much as we may regret the necessity of such regulations, they are at least better than leaving the evil to regulate itself. Mr. Anniss furnished me with the following returns, which, by the kind permission of Captain Harris, I am able to publish:—

Return showing the Numbers of Paupers treated for Venereal Diseases in the Plymouth, Devonport, and Stonehouse Workhouses during the undermentioned period of Two Years.

Period of two years ending Sept. 30.	Plymouth.			Devonport.			Stonehouse.			Total.		Grand Total.
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	
1864..	53	239	292	32	91	123	—	56	56	85	386	471
1866..	29	80	109	16	67	83	—	31	31	45	178	223
1868..	27	54	81	6	44	50	—	33	33	33	131	164
1870..	15	32	47	10	34	44	1	10	11	29	76	102
1872..	13	2	15	5	2	7	—	—	—	18	4	22
1874..	6	3	9	1	2	3	—	—	—	7	5	12

The Acts were first put in force on April 1, 1865, and the gradual and steady diminution will be apparent from the first, more especially after 1870, when the full effects of the increased hospital accommodation and the increased powers of the Acts were felt.

Knowing the error of trusting too much to statistics, and the persistency with which every favourable circumstance resulting from these Acts is challenged by their opponents, I corresponded with the medical officers of the workhouses named as to the above, which they fully confirm. Dr. Thomas, of Plymouth, writes, "During a period of five years, I do not think I have seen three cases of either primary or secondary syphilis, and only two cases of gonorrhœa. I am of opinion that this great reduction is owing to the beneficial working of the Contagious Diseases Acts, which is at present being so efficiently carried out under the superintendence of Inspector Anniss." Mr. De la Rue, of Devonport, urges the importance of applying the Acts throughout England, and to men, where practicable, as well as women. He believes that the beneficial effects of the Acts would have been much greater if they were more extended. The only cases now seen in the Devonport Workhouse are those of pregnant women. Mr. Leah, of Stonehouse, writes, "I have no recollection of having had any cases of venereal disease in the East Stonehouse Workhouse up to the commencement of the present year. During this year we have had two cases, one of primary, the other of secondary syphilis, in the workhouse, both discharged from the Royal Albert Hospital as being pregnant. So far as Stonehouse is concerned, the figures given by Mr. Anniss are correct; the cases I now speak of have come to us since that return was made. I attribute this satisfactory state of things to the working of the Contagious Diseases Acts. Having held the office of House-Surgeon to the London Lock during the time the voluntary system was in force, and being now on the staff of the Royal Albert Hospital as one of the senior surgeons, I have been able to compare the two systems, and I am certainly in favour of the present Acts." All this is very convincing, but, as it would not have been complete without the returns from the Royal Albert Hospital, Dr. Archer kindly procured these for me.

Year.	Cases.	Year.	Cases.
1865	245	1870	1033
1866	315	1871	935
1867	321	1872	767
1868	1081	1873	672
1869	1536	1874	680
and up to October 1, 1875			466.

I need hardly observe that the greater proportion of the above comprise cases which would never have gone to the workhouses nor to voluntary hospitals. It is impossible, therefore, to come to any other conclusion than this: That venereal diseases have been all but stamped out of the three neighbouring workhouses, while it is gradually being reduced in the Hospital (allowing for fluctuations), although cases of disease constantly come from unprotected districts, of which Exeter is a very notable instance. The number of prostitutes in the three towns, Plymouth, Devonport, and Stonehouse, diminished rapidly on the first introduction of the Acts, and in three years was less than half its former number. Now the registered women number little over 400, whereas in 1865 the number was 1770. During the year 1874, sixty-eight registered women who had been in hospital, and forty-nine who

were also on the register, but had not contracted disease, all under twenty-five years of age, ceased prostitution, being a total of 117.

I could add many other proofs of the excellent work which has been done; but I have said enough, I think, to convince most readers that when Sir J. Trelawney called these Acts the most benevolent that have been passed this century, and when Dr. Brewer stated that more good had been done by them in three years than has been accomplished by the united efforts of the religious world in this direction—they were guilty of no exaggeration. I feel that I cannot speak too highly of the manner in which their duties are performed by the medical officers of the hospitals and the visiting surgeons. They all seem to throw themselves thoroughly into their work, which involves much that is very disagreeable, and much that is very monotonous and irksome, such as filling up and signing certificates, making out returns, etc., all of which is, however, well and thoroughly performed. It is evident, also, that their duties are combined with the greatest kindness and consideration to the women who come before them; and to this much of the success I have described is due. The lady superintendents of the hospitals are also deserving of all credit for the interest they take in the future welfare of the patients, as well as for the admirable arrangements of the hospitals, and the efficiency of the nurses, who are quite on a par in intelligence and respectability with those of the best-managed hospitals. To the police all praise is due for the discretion, tact, and humanity with which their very delicate duties are performed. The Government is to be congratulated on possessing such highly efficient officers. In conclusion, I take this opportunity of expressing my most grateful acknowledgments to all the gentlemen I have named for the courtesy and assistance they afforded me on the shortest notice, and without any previous acquaintance; to Captain Harris, for his valuable and interesting reports, and permission to publish the above returns; to Miss Webb, of the Chatham, and Miss Farrow, of the Devonport Hospitals, for much useful information; and to Inspector Anniss, for his civil and obliging conduct to me during the whole of my stay at Plymouth.

THE annual meeting of the Liverpool Medical Institution was held on Tuesday evening, the 11th inst., for receiving the treasurer's and other reports, and the election of officers. The treasurer's statement showed the very satisfactory balance in favour of the Society of £161 19s. 9d., the total income for the year (including a small balance from 1874) being £459 6s., and the total expenditure £297 6s. 3d. The following is a list of officers either elected for the ensuing year or remaining in office:—*President:* Dr. Turnbull. *Vice-Presidents:* Drs. Steele and Glynn, and Messrs. Higginson and C. B. Wilson. *Treasurer:* Dr. M. G. B. Oxley. *Honorary Secretary:* Dr. C. E. Lyster. *Honorary Secretary for the Ordinary Meetings:* Mr. Chauncy Puzey. *Honorary Librarian:* Dr. W. Carter. *Members of Council:* Drs. Vose, J. Cameron, Waters, Grimsdale, Dickenson, W. M. Campbell, J. Bligh, D. W. Parsons, Adam, and Pollard, and Messrs. H. G. Rawdon and G. H. Snape.

MEDICAL WOMEN IN RUSSIA.—According to the *Semaine* of St. Petersburg, medical women seem to be going on apace in Russia. During 1875 the women-students amounted to 171, of which number 102 belonged to the nobility (rather a wide term there), 17 to the commercial class, 14 to the shopkeeping class, 12 to the clerical class, and 24 to different ranks of the *bourgeoisie*. Of the 171, 23 are Jewesses, 12 Armenians, 3 Lutherans, and the remainder Orthodox; 23 are married; 53 have received the diploma of professor (doctor ?), accompanied by the warm congratulations of the Director of the Faculty.—*Lyon Méd.*, January 16.

REMOVAL OF THE SCAPULA.—In the *New York Medical Record*, November 13, Dr. Crosby claims for his father, Dr. Dixi Crosby, the priority in the performance of this operation, he having in 1836 removed the entire arm and scapula and three-fourths of the clavicle, on account of an enormous osteo-sarcoma—the patient, aged thirty-nine, completely recovering, and dying with paraplegia twenty-eight months after the operation. No account of the case was ever published by the operator; and his son, in his communication, endeavours to supply the omission from statements made to him by several persons who witnessed the operation or knew the patient. Dr. Crosby observes that it is a remarkable fact that the three first operations of this nature were done within two years by New Hampshire surgeons.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SEAMEN'S HOSPITAL (DREADNOUGHT).

A CASE OF TERTIAN AGUE, WITH ANALYSIS OF URINE OF THE FEBRILE AND NON-FEBRILE DAYS.

(Under the care of Dr. RALFE.)

G. J., aged thirty-three, was admitted into the Seamen's Hospital, under Dr. Ralfe, May 2, 1875, suffering from tertian ague. He had had three fits previous to admission, the first being of a quotidian type, beginning at 11 a.m.; the third tertian, commencing at 7.30 in the day.

May 3.—The attack began at 6.45 a.m.; the cold stage lasted three-quarters of an hour, the hot stage one hour and thirty minutes, sweating five hours. The highest temperature reached was during the hot stage—105° Fahr. Ordered mist. expectans, and directions were given to have the urine collected the next day from 4 a.m. to 4 a.m.

4th—5th (*non-febrile day*).—The analysis of the twenty-four hours' urine gave the following result:—Quantity, 2800 c.c.; acidity, 2·1 grammes; urea, 50·4 grammes; chlorine, 7·5 grammes; sulphuric acid, 1·6 grammes; phosphoric acid, 2·8 grammes.

5th—6th (*febrile day*).—The attack commenced at 7.30 a.m., and the sweating stage terminated at 4.23 p.m. The analysis of the twenty-four hours' urine gave:—Quantity, 1990 c.c.; acidity, 1·01 grammes; urea, 37·54 grammes; chlorine, 4·68 grammes; sulphuric acid, 1·3 grammes; phosphoric acid, 2·3 grammes.

The following table shows the hourly rate of excretion of the urinary substances during the febrile day:—

	Max. Temp. Fahr.	Amount.	Urea.	Chlorine.	Sulphuric Acid.	Phosphoric Acid.
	°	c.c.	grms.	grms.	grms.	grms.
Before fit, 4 a.m.—7.30 a.m.	normal	65	1·56	0·116	0·078	0·13
Cold stage, 7.30—8.10 a.m.	104·4	195	4·36	0·936	0·156	0·10
Hot stage, 8.10—10 a.m.	105	78	1·86	0·374	0·046	0·09
Sweating, 10—12 noon .	103·8	60	1·68	0·144	0·102	0·08
(a) Sweating, 12—4.23 p.m.	103·6	89	2·16	0·267	0·071	0·09
Remission, 4.23—4 a.m. .	98·6	85	1·19	0·127	0·034	0·11

The urine was collected by Dr. Duncan, the House-Physician, who visited the patient every quarter of an hour during the progress of the fit, to watch the temperature, and make the patient pass water at the proper time. The standard solutions were prepared by Messrs. Griffin, of Covent-garden.

7th (*non-febrile day*).—Ordered five grain doses of quinine to be taken three times a day. Urine to be collected as usual.

8th (*febrile day*).—No attack this day, owing, no doubt, to the effect of quinine; nor did any fresh attacks occur during his stay in hospital, whilst taking quinine. Analysis of the urine gave the following results:—Quantity, 2380 c.c.; acidity, 2·3 grammes; urea, 49·9 grammes; chlorine, 7·8 grammes; sulphuric acid, 1·7 grammes (?); phosphoric acid, 2·6 grammes.

It is interesting to observe that the quantities passed on the non-febrile day, and on the febrile day in which the attack was checked by quinine, closely approximate; and the quantities passed on both days are in excess of those passed on the febrile day which had the regular attack. In the cold stage all the urinary constituents, except phosphoric acid, were increased. The phosphoric acid throughout remained very constant, and varied only fractionally in the different stages of the attack.

THE SUSSEX COUNTY HOSPITAL.

AT a recent visit for a few hours to the "Queen of English watering-places," we took the opportunity of spending a short time at the Brighton Hospital. Through the courtesy of the

(a) Had midday meal at noon (a small quantity of meat).

House-Surgeon (Mr. Langdale) we were able to make an inspection of the building, and were shown some of the more interesting cases both in the medical and surgical wards. The Hospital, which contains 170 beds, is the pink of neatness and cleanliness, but it struck us that the beds were somewhat too crowded together, especially in the children's wards. The ventilation is not altogether good. In the surgical wing there is a wide open staircase running from the basement to the top floor, between two sets of wards. This, besides allowing the impure air from the floors below to ascend to the top floor, offers a ready and most inviting leap to any patient whose condition leads him to attempt suicide. Although, unfortunately, grave occurrences of this kind are by no means unknown at other hospitals, no such misfortune has ever taken place at the Sussex County Hospital, so far as Mr. Langdale knows. Amongst the cases we saw in the surgical wards were the following:—

Compound Fracture of Both Legs treated Antiseptically.

The first case shown to us was one which, it was considered, illustrated the advantages of the antiseptic treatment. It was that of a man of robust and large frame, beyond the middle period of life, and who has been employed as a driver. Shortly before his admission, his horse began kicking, kicked through the dash-board of the conveyance, and broke first one leg and then the other of the driver. In both legs the fracture was compound, and was made so probably by the force which broke the bones. In one the tibia projected some distance through the skin. There was no hæmorrhage to speak of from the wounds. The fractures were set in the same manner—viz., a back-splint, with a foot-piece of galvanised iron, and two side-splints for each leg,—and the wounds were covered with carbolic gauze and protective. The man had always been temperate. At the time we saw him he was making a rapid recovery without an untoward symptom of any description.

Fracture of the Femur—Rack-moving Extension Splint.

There were two cases of fracture of the thigh, in both of which a long Liston splint, differing in some essential particulars from that usually in use, was applied. It is the one commonly used by Mr. Jowers, and consists of a long Liston divided into two parts opposite the knee, the lower half, however, being continued upwards into a narrow central shaft or tongue which runs along a groove in the upper portion. The splint can be lengthened or shortened by turning with a key a cog-wheel attached to its upper part, the teeth of which work in the notches of an iron plate attached to the tongue or shaft of the lower part of the splint. Extension can thus at any moment be made after the perineal band is adjusted and the foot is fastened to the lower end of the splint. Another point about this splint is a long thick screw projecting upwards far above the patient's toes; this works in a ring on the outer side of the splint, at a point opposite the ankle, upon a piece of wood placed transversely beneath the ankle. By means of this long screw the foot and lower end of the splint can be raised and supported from the bed, so that the heel is free from pressure, and the bedclothes are kept free of the toes.

Ununited Fracture of the Thigh—Chancroid—Suppuration about the Ends of Bone—Amputation—Recovery.

A man of middle age, who had been living very badly, and had been much exposed during the late hopping season, was admitted in October last with a fracture through the middle third of the thigh-bone. The accident happened while he was driving a team of horses, the front wheel of the waggon passing partially across his thigh. On admission, the thigh was set in the usual manner; it was also discovered that the man had a large soft sore on his penis. The chancroid under proper treatment got quite well, and was not followed by any constitutional evidence of true syphilis, but at the end of six weeks there had been no attempt whatever at union of the broken thigh-bone. Shortly afterwards, a large abscess formed, and was opened; pus burrowed up the thigh, and a sinus was established just below and in front of the trochanter. The patient lost ground, and it was deemed necessary to amputate. After the operation, the man gradually improved, and we saw him convalescing, with a well-shapen stump quite healed.

Syphilitic Iritis.

A stout woman, about forty or forty-three years of age, was admitted with severe iritis. The pupils were narrowly contracted, inactive, and irregular, and the patient could not see at all with the left eye, and only very slightly with the right. There were well-marked specific maculæ about the patient's face and body. Iodide of potassium and mercury were given internally, and a solution of atropine was dropped into the eye, and extract of belladonna moistened with water was smeared over the lower margin of the orbit. This treatment was continued for a week with little or no improvement. Then suddenly, during the night, the patient experienced an improvement; and from that time up to when we saw her, a fortnight after admission, there had been continued and very marked improvement.

Croup—Recovery—Enlarged Cervical Gland.

A little infant, about fifteen months old, was recovering from croup. When admitted, the child was desperately ill. Two drachms of vinum ipecacuanhæ were given at once, which had the desired emetic effect; then calomel and pulvis antimonialis were prescribed in small doses. Recovery slowly took place, and a large quantity of false membrane was expectorated. The soft palate for some days was paralysed. Of course, strict attention was paid to the temperature of the air inhaled; but much importance was attached to the fact that the child was chiefly nursed during the whole of its illness. It was still kept in the hospital on account of an enlarged cervical gland which was threatening to suppurate.

During the last three years, tracheotomy has been performed for croup four times in the Sussex County Hospital. All these cases have proved fatal. In one the child lived, however, for five days, and died suffocated, in spite of every effort made to save life, from a piece of false membrane blocking up the tube.

Morbus Coxæ.

Two cases of chronic hip-joint disease were lying next to one another in the children's ward. In one case an abscess had formed in the joint, and had been three times aspirated. The common plan of treatment is extension by weights. Excision of the head of the femur—or, indeed, excision of any joint—is not regarded with much favour apparently by the Brighton surgeons. It would seem to be the opinion that there are but few, if any, cases which do not recover as well without as after excision. No doubt the fresh air, the healthy hygienic conditions, and the sea breezes have much to do in enabling nature to bring about a cure in many cases in which otherwise the surgeon has to attempt to check the diseased processes by removing the necrosed tissues.

In connexion with this subject we must just mention an excellent result after an injury to the elbow-joint. A young man was admitted with compound fracture of the elbow-joint. The inner condyle was broken away from the rest of the humerus, and the lower end of that bone was projecting through a large lacerated wound of the soft parts on the outer side of the joint. Reduction was effected, the parts were carefully cleaned, and the antiseptic carbolic dressing was applied. The union of the fractured bone proceeded, the healing of the soft parts rapidly took place, and the young man recovered completely, with a very fairly movable joint.

Prizes of the Belgian Academy of Medicine.—At the last meeting of this learned body it resolved, in pursuance of the recommendation of a special committee, that three prizes, of 300 fr. each, should be awarded to the authors of the three most important treatises received by the Academy during its last triennial period:—1. A prize to Dr. Casse, Physician to the Grand Hospice at Brussels, for his remarkable work on transfusion; 2. To Prof. Rommelaire, for his memoir on the *déformation* of the blood globules; 3. To Dr. Barella for his memoir on diseases of the heart.—*Presse Belge*, January 2.

The Paris Assistance Publique.—In 1876 the number of disposable beds in the various hospital establishments will be 19,380, of which 8234 are for the 19 hospitals, 9324 for the 10 hospices for the aged and infirm, 1202 for the insane poor in Bicêtre and Salpétrière, and 570 for the *enfants assistés* and orphans. The total of individuals thus succoured by the hospitals and hospices will probably amount to 108,168; and to this must be added that of persons receiving succour at home—viz., 114,000 indigent persons registered at the *bureaux de bienfaisance*, 35,000 patients treated at home, 12,000 lying-in women, 25,000 non-registered persons temporarily relieved, 2000 infants at nurse, and 25,000 children boarded out in the country.—*Gaz. Méd.*, January 8.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JANUARY 22, 1876.

LADY BURDETT-COUTTS AND HOSPITAL SUNDAY.

Every-day experience shows that in the social life and working of this world head and heart not only do not by any means always harmoniously work together, but that much more often they do not work together at all, or at any rate the one greatly dominates over the other; and it would probably be safe to assert that the qualities of the heart more commonly gain the mastery over those of the head than do the qualities of the head over those of the heart. It is, indeed, natural, and to be expected, that in the uneducated, the untrained, and the undisciplined, judgment should be conspicuous by its absence when the feelings are excited; but the same thing is observed in all classes of society, and even with those who are of high culture, who are not wholly without training nor without some kind or degree of self-discipline,—reason and judgment often kick the beam when weighed against benevolence, philanthropy, and pity. And we have to expect little else but this from a class of excellent people, of whom we may venture to name Mr. Auberon Herbert as a "noble type." Actuated very often by "paradoxical impulse and impossible chivalry," they admit of no views but their own on any question in which they happen to be interested; they are ready to believe, or at any rate to suggest, all kinds of evil of those who look at the matter in any other light than theirs; and they insist, in season and out of season, on their own opinions. This mode of action is so innate and instinctive in the class of which we speak, that sorrow over it or remonstrance against it would be a waste of force and feeling. But happily there are numbers of people who, whilst they are at least as good and excellent, and as truly benevolent, loving, and pitiful as the class above spoken of, yet restrain and guide their emotions and feelings by their reason and judgment, and work for the objects they desire to attain or to promote with consideration and regard for the feelings, opinions, and judgment of those who do not go with them, and even with charity for their opponents. And when one of this class is betrayed by feeling and sentiment into an act of unwisdom or uncharitableness, it is to be protested against and greatly to be regretted. Baroness Burdett-Coutts' public works and actions have been almost invariably eminently remarkable for judgment and thoughtful care, as well as largeness of heart, benevolence, and charity; but her letter, lately published, to Bishop Claughton appears to us in every way unwise and ill-timed. A Commission has for some time been occupied in taking evidence, and is now preparing its Report on Vivisection, and it would surely be most fitting and right to wait for that report, and the decision of the Commission, before again attempting to rouse public feeling in the matter. But both Mr. Auberon Herbert and Lady Burdett-Coutts think differently, and have appealed to the public against vivisection in a strain only justifiable if all the enormities and cruelties that have, under that term, been laid to the charge of men of science were undeniably and indisputably true. Of Mr. Herbert's long, clever, and impassioned letter to the *Times*, on what he terms "a revolt of a part of science against the authority of morality," we do not propose to speak,—the extremeness of his views will probably be their antidote,—but we will observe that when he expresses the wish to see "that the more a man has learnt of the wonderful nature which surrounds us, the more merciful became his whole character, the wider his sympathies, the greater his reverence for life," he eloquently describes the character of our great leaders and teachers in the art and science of medicine. The letter of Lady Burdett-Coutts, however, appears to us much more likely to be productive of mischief than Mr. Herbert's. It is addressed to Bishop Claughton, the Archdeacon of London, and appeals to him and the clergy of his archdeaconry to consider whether they should not, when advocating, on Hospital Sunday, the claims of the various hospitals on public charity, "make it a condition that the sums which may be collected should be withheld from institutions in which the dissection of live animals is practised." In justification of this appeal, Lady Burdett-Coutts says: "In hospitals where this practice prevails it must be borne in mind that some portion of the money collected may be applied to the purchase of the unfortunate animals condemned to undergo these experiments, from the building of premises for experimental purposes, as provided in the University of Edinburgh, or from the purchase of the unfortunate animals condemned to undergo those experiments—an application of the funds certainly most abhorrent to the greater number of those whom you may prevail upon to give alms and donations in aid." She speaks of the "mutilation, or torturing the life out of living creatures for alleged scientific or hygienic purposes," of the growth of experimentation on living animals amongst us, as "a cancer in our social system"; and thinks that "the preachers for the Hospital Sunday collection should fully satisfy themselves that they are not committing themselves or their congregations to the support of practices from which they would recoil in protest of our common nature." All, she thinks, are not only entitled, but bound, to require a guarantee from the Committee of Distribution "that hospital practice, whether as regards men or animals, is humane and considerate."

Now, we fear that, as regards some of those who have raised the panic outcry about vivisection, it would be simply a waste of time to point out that the danger—apparently the cause of Lady Burdett-Coutts' letter—is a purely imaginary danger. They will gladly believe in it; and no matter what proof may be given of its non-existence, they will, if it suits their purpose, continue to believe in it. But not so, we venture to trust, with Lady Burdett-Coutts herself. It will be enough to assure her that not only is there no danger, but that there is no possibility of the charitable funds of a hospital being used in

the manner she has suggested. The funds of a medical school attached to a hospital are entirely distinct from the hospital funds, and the latter are never drawn on for school expenses. No medical officer of a hospital, or teacher in a hospital medical school, who might wish to endeavour to add to medical knowledge by means of experiments on animals, would think of asking, or have the slightest chance of obtaining, any pecuniary aid from the charitable funds of the hospital. All the expense would have to be borne by tho experimentalist or by the school.

Further, we must protest in the strongest manner against the wild uncharity of any attempt to excite a religious crusade of the kind shadowed forth not indistinctly in both the letters mentioned. Who shall limit the objects of such a mode of interfering with hospital management? The next crusade might be against any hospital, any officer of which habitually drank beer, wine, or spirits; or any officer of which allowed or promoted vaccination. True, large-hearted charity would be banished from hospital government, and inquisitorial, narrow-minded dogma would reign in its stead.

Of the degree, extent, and methods in which experiments on living animals are in truth carried on, and for what objects, we say nothing now. We await with confidence the report and judgment of the Commission on Vivisection; at any rate, so far as concerns the practice in our own country.

THE MIDWIFERY LICENCE OF THE COLLEGE OF SURGEONS.

We last week briefly stated the position of the College of Surgeons in relation to the granting of its midwifery certificate to women who, after due examination, shall be found qualified. We understand that a committee of the Council of the College has been appointed to consider how the regulations may be altered so as to meet the somewhat perplexing circumstances in which the College finds itself.

The subject is of such grave importance, not only to the College and profession, but also to the general public, that we shall briefly recapitulate the leading facts, and then endeavour to point out some of the difficulties and dangers of the situation—not with any idea of instructing those on whom the serious responsibility falls of deciding this weighty matter, but simply to encourage the full discussion of the subject.

The College Council, having asked its legal advisers whether the College possesses the power to examine women desirous of obtaining its midwifery certificate, has been answered: You not only possess the power, but you are bound by your charters to admit them to examination; and your regulations being such as to prevent them, under existing circumstances, from passing through the required course of study, it is an important question whether they can or cannot put the law in motion to compel you so to alter these regulations as to enable you to grant them certificates when they shall have satisfied your examiners.

But when once women obtain this certificate they are also entitled to be put on the Medical Register, and to practise midwifery on equal terms with other fully qualified medical practitioners.

It is, perhaps, a hopeless task to try to influence the women who wish to become qualified midwifery practitioners, and those who support them, by pointing out how little they are fitted for this branch of practice; but it is important that the profession and public should well consider the question. We would therefore ask—In what position more requiring promptness and decision as to the time for action or waiting the efforts of nature can a practitioner find himself or herself than in a difficult case of labour? and when are physical strength and powers of endurance more tried? When, again, is nerve more required than in a case of severe post-partum hæmorrhage? Then we would ask—Are men or women most fitted by nature to sustain these demands, or are the latter at all fitted for doing so?

Supposing that the advocates for female obstetricians assert that women are as well or better qualified to meet these demands, we must next consider the possibility of so altering the existing regulations as to admit them. As the laws stand at present, the word "persons" opens the door to women to demand examination; but if the regulations are altered so as to admit them, the word "women" must be substituted for "persons," or men can claim admission along with the women, and we shall have a class of male practitioners in midwifery admitted to this special branch of the profession by a different standard from that which admits other qualified practitioners on to the Register—the inevitable result being a lowering of the general status of the profession, by the admission of a large class of practitioners who have not had a full medical education. And no one can doubt that if they are once admitted on to the Register, they will practise other branches of the profession along with midwifery; and though they cannot in courts of law recover fees for such practice, the public will be, at any rate, long in understanding the distinction, and the College will thus become responsible for exposing the public to the danger of being treated by only partially educated physicians and surgeons. On the other hand, if the word "women" be specially used, the very equality which the advocates for the admission of women into the profession have all along so much insisted on will be destroyed at the very commencement. And will not men wishing to practise midwifery then have as just a cause of complaint, on the ground of inequality, as women now claim to have? Here, then, is a difficulty as great or greater than any that this much-vexed question has yet forced upon the profession.

It seems doubtful whether it is in the power of the College to shut the door which has been, intentionally or inadvertently, left open by the use of this word "persons" in the Act of 1852. And it is a question whether it would be wise for them to use that power if they possess it. For it is always wiser in such matters to give way gracefully, and while the chance remains of making one's own terms, than to resist until forced to give way, when the terms may be dictated by the victorious party. From the present state of popular feeling on this subject, and the number of influential supporters which the so-called rights of medical women can reckon in Parliament, it is at least an open question what the result may be if the medical corporations force on a Parliamentary conflict. Hence the very urgent need that those with whom the settlement of the question, as it stands at present, rests should not only well weigh and consider all the dangers of the position, but that they should be aided in arriving at a wise decision by a full discussion of the subject in the medical journals, and have the opportunity which such discussion will give of estimating the direction in which the general opinion of the profession and public flows.

HANGING ON SCIENTIFIC PRINCIPLES.

So long as the penalty of death remains in our Statute-book as one of the punishments for crime, whatever may be the method of execution, it is evident that we are bound on all humane and Christian grounds to carry out the sentence in the quickest way, and the way least painful to the victim.

Whether hanging is the best method of execution, or whether some more rapid and painless mode of death might not be chosen, we do not intend here to inquire. Our object is merely to consider a paper on the subject of execution by hanging read before the Surgical Society of Ireland by Professor Haughton. We are glad that a man of so high a character and such a deserved reputation was humane enough to deal with a subject which to many is peculiarly repulsive, and

to disregard the objections of some of his friends that by associating his name with such a topic he would suffer both in reputation and character. We cannot admit the probability of such a result. Had Dr. Haughton undertaken his investigations merely to satisfy a morbid curiosity, he might be deservedly blamed; but when his sole object is to save avoidable suffering to those unfortunate culprits who have forfeited their lives to the law, the trouble he has taken cannot but redound greatly to his credit.

The paper which the reverend doctor read had reference mainly to a comparison between the ropes with which three Irish murderers—Kilkenny, Carr, and Montgomery—were hanged; and afterwards the question of the position of the knot and of the relative superiority of the long or short drop was considered. We shall briefly review Dr. Haughton's remarks on these several topics.

At the execution of Kilkenny, which took place in 1865, Dr. Haughton was himself present. The drop was the very long one of fourteen feet six inches, the weight of the man being 160 lbs. The death was instantaneous, and post-mortem examination showed that "the anterior articulating surfaces of the second vertebra were fractured near their posterior border, the fracture of the bone extending as far as the foramina for the vertebral arteries. The knot was occipital, and the soft tissues of the neck, including the trachea, œsophagus, and sterno-mastoid muscles, and the carotids and jugulars, were completely cut across, except the skin, which was not abraded or injured in any way."

In the case of Carr, executed in 1870, the result, under apparently very similar circumstances, was very different. The man's weight was 158 lbs. (2 lbs. lighter than Kilkenny), and the drop allowed was fourteen feet. The result was that the man's head was cut off; there was transverse fracture of the second vertebra, and displacement of the second vertebra from the third. The knot, as in Kilkenny's case, was occipital. It will be seen how similar the two cases were, and yet how different was the result. The cause of this lay in the rope. The rope by which Carr was hanged was much more rigid than Kilkenny's, the latter having four times as much stretching power as the former—that is to say, requiring one-fourth the weight to stretch it a given distance. The spring of Carr's rope was also only half that of Kilkenny's. It will be seen that in these two cases the principal question is that of the elasticity of the rope and the length of the drop. It would not appear that a drop of fourteen feet is too long, provided that the rope is proportionately elastic; but it is evident that the length of drop must be regulated with regard to the spring and elasticity of the rope.

The case of Montgomery calls attention to the position of the knot. This man was executed in 1873. On the night previous to the execution a terrific thunderstorm raged, with the result of washing the soap off the rope, which had been hung from the gallows in readiness. In the morning, on the executioner coming to adjust the rope round Montgomery's neck, he found that it would not run freely. The governor of the gaol hastening him on, the knot was put on clumsily and slipped round under Montgomery's chin. The culprit was 180 lbs. in weight, and got a drop of seven feet. The knot, as we have said, was sub-mental, and the shock came directly on the vertebræ, the result being instantaneous death.

In reviewing these three cases, Dr. Haughton remarked that in Ireland the long drop has been the custom for a considerable time; whereas in England, and especially of late years under Calcraft, a short drop of only two or three feet has been the rule. The result of this has been, according to the evidence of Mr. Gibson, the surgeon of Newgate, that during that gentleman's long experience he has known but one case in which death was rapid. Marwood, Calcraft's successor, is an advocate of the long drop, and of placing the knot under the left ear. In the recent execution of Wainwright we believe the knot was placed under the chin, with the result of instantaneous rupture of the spinal column.

The conclusions at which the learned reader arrived may be summarised somewhat as follows:—1. That the old system, under which the culprit's life was taken by suffocation, is painful, inhuman, and revolting to the spectators. 2. That the object in view should be the immediate rupture of the spinal column. 3. That the use of the long drop is more humane, and is the only method by which the above object can be attained. 4. That Calcraft's short drop, and the position of the knot which he adopted, should not be permitted. 5. That the fracture of the spinal column can best be effected by the use of a moderately elastic rope, a drop of ten feet at least, and the placing of the knot under the chin. These recommendations are thoroughly borne out by the facts which Dr. Haughton adduced, and were endorsed by most of the speakers in the discussion which followed the reading of the paper. We trust that they will be tested, and, if found efficacious, be always employed, in order that the minimum amount of suffering may be inflicted on those wretched beings who are condemned to suffer the last penalty of the law.

THE WEEK.

TOPICS OF THE DAY.

An interesting paper on the sanitary arrangements of Berlin and other large German towns was recently read by Dr. Stamm before the Berlin Hygienical Society. He showed that from 1867 to 1873 the average mortality in Germany was one in 33, while for the whole of Europe the average was one in 42 only; that the mortality of Berlin is considerably greater than that of Paris, Amsterdam, or London; and that it has been from 3 to 8 per cent. more than in the country districts in its immediate vicinity. Dr. Stamm attributes this mainly to the overcrowding of the population in the poorer quarters of the capital, owing to the exorbitant rates to which house-rent has been rising of later years. The number of people residing on each hectare of ground in Berlin is nearly five times as great as in London; numbers of people live in cellars. In 1867, there were 15,574 dwellings in Berlin where upwards of six persons lived in one room, and 14,292 cellar-dwellings; and since that date the evil has considerably increased. Dr. Stamm concluded by urging the Government to amend the legislation regarding house-property in the German towns, and to abolish altogether the practice of living in cellars.

From time to time public attention is called to the increasing prevalence of intoxication amongst the lower classes of this metropolis, and some curious statistics have recently been elicited at an inquest held in Marylebone on the body of a child three months old, who was found to have died "from want of fresh air while in bed with its parents." The deputy-coroner, who conducted the inquiry, remarked that the frequency of these cases was now quite alarming, there being upwards of 300 children suffocated in bed annually in the Central District of Middlesex alone. He did not mean to explain it, but he might state that a very large proportion of these suffocations occurred on Sunday mornings. They might result either from over-indulgence in drink by the parents, or from the fact of the latter working harder and later on Saturday evenings. Dr. Times, who had appeared to give evidence in this inquiry, said that seven-tenths of these cases were found to occur on Sunday mornings. This is a fact which might certainly be worth the attention of those who advocate the principles of total abstinence.

At the annual meeting of the Lewes Town Commissioners, held last week, it was stated by Mr. Braden, the medical officer, that not a single case of fever had been reported to him during the last six months. At the same period last year

typhoid fever was very prevalent, and a Government inspector was sent down to institute inquiries. Recently the water company had obtained their supply from a new source, and direct from the chalk. The absence of fever was attributed by him to this change, together with the improved sanitary arrangements in the town.

The report of Dr. Whitmore on the health of the Marylebone district for the past month, which has just been issued, shows an extraordinary increase of mortality, and reiterates the necessity of maintaining cleanliness in the streets of the metropolis. During the five weeks ended January 1, there were 414 births and 468 deaths, or an excess of the latter over the former amounting to fifty-four—a most unusual occurrence. This high rate of mortality was owing to an almost unprecedented fatality in diseases of the respiratory organs, bronchitis being responsible for 110 deaths, and inflammation of the lungs for 130. The mean temperature was 35·5°—by no means low for the time of year; but it was unusually damp and wet throughout the month, and to this cause the large increase in the deaths from the foregoing diseases must be attributed. It may be inferred, therefore, that by maintaining, as far as possible, a dry and cleanly state of the foot-pavements and roadways of London, an important sanitary improvement will be effected, by lessening the tendency to diseases of the respiratory organs. Having in his previous report felt it his duty to complain of the sloppy condition of the streets of the metropolis, Dr. Whitmore refers with pleasure to the promptitude and energy which the officials of St. Marylebone have displayed in removing the large accumulations of snow which fell during the snowstorms.

Hospital Sunday in Dublin has proved a greater success than was even anticipated. The total sum available for distribution and payment of expenses for 1875 is £3619 19s. 5d., being £302 9s. 2d. more than last year. It is also very satisfactory to be able to record that the cost of the collection of this sum will not exceed £200.

At the meeting of the Lewisham District Board of Works on the 13th inst., the report of Dr. Wilkinson, the medical officer, showed the number of deaths during the past month to have increased from seventy (the average) to 119. Sixteen deaths had been registered from epidemic disease, measles and scarlet fever being prevalent. The Board ordered the issue of a circular giving simple directions for the disinfection of sick-rooms in cases of contagious diseases. Another circular is also to be issued to cab proprietors, stating the most effectual means of disinfecting public conveyances after being used in cases of infectious disease.

We recently alluded to a prosecution, instituted under the sanction of the Registrar-General, against a woman for making a false entry of the place of birth of her children, in order to evade the conditions of the Vaccination Act. The prisoner, when tried last week by Mr. Justice Denman, stated in her defence that she had acted in the way complained of because she considered vaccination to be dangerous, and attributed to it the death of another of her children. Mr. Crisp, who prosecuted, said that a body of persons calling themselves the National Anti-Compulsion League were in the habit of publishing a periodical, in which they gave the most dreadful descriptions of maladies represented to have been caused by vaccination. This had, no doubt, great effect upon the minds of ignorant people, and had probably led to the commission of the present offence. The object of the prosecution was therefore to let the public know that the law would be enforced in future with the utmost severity. Mr. Justice Denman said that the Registration Act was one of great importance, and its provisions must be enforced. On the present occasion, however, he hoped it would be sufficient for him to order the prisoner to pay a fine of £1.

With reference to the inquest held upon the body of the late Mr. Acton, the Coroner for Central Middlesex has received the following communication from the private secretary to the Home Secretary:—"I am directed to state that, while admitting that you were probably right in ordering an inquest in the first instance, Mr. Secretary Cross cannot think that your discretion was wisely exercised in going on with it after seeing Dr. Murchison's certificate. Mr. Cross agrees entirely that no distinction between rich and poor should be made in these cases, but he considers that a coroner, in the exercise of his discretion as to whether an inquest is necessary or not, should weigh each case with the most careful discrimination, and he cannot refrain from expressing his regret that you felt it to be your duty to proceed with the inquest in this case, although he has no reason—any more than the jury had—to doubt your *bona fides* in so doing." Dr. Hardwicke has objected to the press giving publicity to the foregoing letter without having printed the communication from himself which called it forth; but, as the one was sent for publication and the other was not, we fail to see how he can have any just cause for complaint in this matter.

On Saturday evening last, at a meeting of the Society of Medical Officers of Health, Mr. J. Netten Radcliffe read a paper "On the Prospect of a Reappearance of Plague in this country and on the Continent of Europe." The last and greatest outbreak of plague within the bills of mortality occurred in 1665. It is a century and a half since plague was domiciled in this country as a destructive epidemic. Mr. Radcliffe raised the question of its possible reappearance, not as a subject of speculative epidemiology, but as a matter of practical consideration particularly affecting the members of the Society. He briefly sketched the history of the different outbreaks of this disease in Asia since it was supposed to have entirely died out in the East in the year 1844. A short discussion followed the reading of the paper. Previous to the commencement of the proceedings, however, it should be stated that a conversation took place, in which it was very generally admitted that medical officers of health had great difficulty in obtaining information of the occurrence of cases of infectious disease from private practitioners; and strong opinions were expressed that the public would never have the protection to which they were justly entitled until medical men were compelled to furnish returns to the different officers of health.

A new coroner's court-house, situate at 15, South Wharf-road, adjacent to St. Mary's Hospital, was opened by Dr. Hardwicke on Thursday, the 13th inst.

The vacancy which had so long existed on the staff of the City of Dublin Hospital has been filled up by the appointment of Dr. Arthur V. Macan as Obstetric Surgeon. Dr. Macan is Assistant-Physician to the Rotunda Lying-in Hospital, and his appointment to the City of Dublin Hospital commands universal approval.

Dr. Tilt has been elected an Honorary Fellow of the Obstetrical Society of Philadelphia.

We understand that Dr. Alfred Meadows has been elected an Honorary Fellow of the Medical Society of Sweden.

According to the Melbourne papers, scarlet fever is very prevalent in East Melbourne and other towns in Victoria.

INFANTILE DIARRHŒA IN LEICESTER.

A VERY carefully framed and exhaustive report on the epidemic of infantile diarrhœa which occurred in Leicester at the end of last summer has just been presented to the Sanitary Committee by Dr. W. E. Buck and Mr. George C. Franklin, F.R.C.S., who were appointed by the Committee to investigate into all the local conditions in relation to the excessive mor-

tality in the above city from infantile diarrhœa. From July 1 to September 30, 238 deaths of children under five years of age were returned as having been caused by diarrhœa in Leicester. Dr. Buck and Mr. Cooper were afterwards instructed by the Sanitary Committee to visit every house in which the death of a child under five years of age from diarrhœa has occurred since July 1 last, to examine the sanitary condition of the premises, including the water-supply, closet provision, condition of drainage; to ascertain particulars of the illness, and whether deceased was under regular medical or what other advice; the diet of the child, with especial reference to milk, other than that of the breast; the usual state of health of the parents, and their occupation, and whether or not the child was under the mother's personal care at the time of the attack; and generally to inquire into all facts which, in their judgment, will tend to throw any light upon the causes of the excessive infantile mortality from diarrhœa. All these questions are dealt with in detail in the report; but the conclusions at which Dr. Buck and Mr. Franklin arrive are as follows:—"1. That Leicester is not an unhealthy town as regards the adult population. 2. That its death-rate is unusually dependent on the infant mortality, and is regulated by it. 3. That the excessive rate of infant mortality is mainly due to a 'specific diarrhœa' which prevails in the autumn quarter of the year, and is eminently fatal. 4. That such conditions as early ages of parents, debility of parents, maternal neglect, debility of infants, non-suckling, and opium-poisoning exist in the town, just as in other manufacturing towns; but that they have no appreciable effect in the main question at issue. 5. That the houses in which the fatal cases occur are not in themselves insanitary as regards size and number of rooms, water-supply, ventilation and space, house-drainage, and closet accommodation. 6. That this specific diarrhœa is not diffused equally throughout the town. 7. That the disease is most prevalent where the following conditions exist—(*a*) soil water-logged, (*b*) sewers liable to be blocked up, (*c*) undrained made ground. 8. That the disease is less prevalent where the foregoing conditions exist to a less extent. 9. That the disease is almost absent in those parts of the town where these conditions do not exist." The reporters make the following suggestions with a view to the mitigation of the disease:—"1. That the subsoil should be efficiently drained of its superfluous water. 2. That a free outfall should be found for the sewers of the town. 3. That clay-pits or other excavations should not be filled up with filthy ash-bin refuse and then built upon." There can be no doubt that Dr. Buck and Mr. Franklin are quite correct in their conclusions, and the Sanitary Committee will do well to carry out, as far as possible, the suggestions they put forward to prevent a recurrence of such a fatal epidemic of infantile diarrhœa.

THE DISCOVERER OF ANÆSTHESIA.

In a paper read before the members of the Washtenaw County Medical Society, Michigan, "On the History of Anæsthesia," Dr. Edward S. Dunster, Professor of Obstetrics in the University of Michigan, reviews the pretensions of the various claimants to the honour of being the discoverer of anæsthesia. The conclusions at which he has arrived are as follows:—1st. Numerous suggestions and efforts have been made in times past for rendering persons insensible to pain under surgical procedures. All such suggestions, however, were without practical result, and all such efforts were abandoned previous to the year 1844. 2nd. On December 11, 1844, Dr. Horace Wells, a dentist, of Hartford, Conn., first employed nitrous oxide for the purpose of extracting teeth without pain. Repetitions of the experiment, both by himself and others, conclusively established anæsthesia by nitrous oxide. 3rd. Dr. Wells communicated his ideas to a number of professional men in Boston, among them Drs. Morton and Jackson—the former a previous pupil and partner of his own. A single attempt which was made by Wells in public to demonstrate the power of nitrous oxide to produce insensibility to pain, failed in consequence of too soon suspending the inhalation of the gas. Wells was hissed from the room, and pronounced by some to be an impostor. 4th. In consequence of this unsuccess, Wells was disheartened, and for a brief time suspended further experiments; but he did not, as has been asserted by some, abandon his project, but continued, whenever he was engaged in professional work, to employ nitrous oxide, and in Hartford it became an established practice. 5th. The vapour of sulphuric ether was first employed by Dr. Morton, of Boston, on September 30, 1846, in the extraction of a tooth, and a few days later in surgical practice, and its use became general in the United States and in Europe, both in medicine and surgery, within a few months subsequently. 6th. That Dr. Charles T. Jackson, also of Boston, disputed with Morton the credit of the originality of this discovery, and it would appear that the first use of ether by Morton was made with the advice and encouragement of Dr. Jackson, if not altogether by his suggestion. 7th. That in November, 1847, the anæsthetic effects of chloroform were discovered in Edinburgh by Dr. James Y. Simpson, the suggestion of its use having been made to him by Mr. Waldie, of Liverpool, and that with comparatively limited exceptions it rapidly superseded the use of ether, as ether had already superseded nitrous oxide. 8th. That subsequently other means and agents of inducing anæsthesia have been sought and found. None of them, however, have acquired any large prominence; one only—the bichloride of methylene—which was first used by Dr. B. W. Richardson, having been employed to any extent or with any reasonable success in practice. These conclusions agree in the main with those of the late Dr. Bennett, of Edinburgh. Dr. Dunster takes exception to the inscription on the monument erected to the memory of Dr. Morton in Mount Auburn Cemetery, and which accords him all the honour as the inventor of anæsthesia and says that when the story of anæsthesia shall have been fully and finally written the verdict will be rendered in favour of Dr. Horace Wells, the obscure dentist, whose memory has been neglected, and whose name has been almost forgotten. Dr. Dunster appears not to have come across the evidence which we published in our issue of May 29, 1875, and which established the fact that the first person who administered chloroform anæsthetically (in the form known as chloric ether) was Michael Cudmore Furnell, now Surgeon-Major of the Madras Army, who suggested its use to Sir W. Lawrence and Mr. Holmes Coote at St. Bartholomew's Hospital, some months before Simpson's experiments.

A PARISH MIDWIFE.

Last week the case of Mrs. Croft, the Islington parish midwife, whose conduct in connexion with the delivery of an unmarried woman on her premises was referred to in our issue of the 8th inst., again occupied the attention of the Islington Board of Guardians. Mrs. Croft having been asked for an explanation of her conduct, handed in a letter expressing surprise that the Guardians should have taken notice of the inquest or of any statements contained in a newspaper report. She then referred in strong language to the medical man who refused to accept her bribe and to certify to the cause of death, and concluded by asking the Guardians to overlook her present fault, and promising to discontinue the practice complained of. A discussion followed the reading of Mrs. Croft's letter, and some of the Guardians expressed themselves strongly that for the honour of the Board she ought to be discharged at once from the post of parish midwife. A majority of the members present, however, voted that she be reprimanded by the chairman. One of the Guardians—a Mr.

King—stated that in taking large fees to conceal the shame of single women Mrs. Croft only did that which all midwives did, and that medical men of the highest character would act in a similar manner if they were only well paid. Mr. King may not have intended to make false statements, but we feel sure that few midwives, and no medical man of high character, would act as Mrs. Croft is proved to have done. However, that is not the question the Guardians had to decide. One of their servants had been proved to have been engaged in practice opposed to the interests of public order and decency, and it was for them to decide whether they would retain such a person in their employ or not. A majority decided in the affirmative—a result which, in our opinion, shows that the Islington Board of Guardians are unable to recognise their responsibilities as public officials.

ROYAL INSTITUTION OF GREAT BRITAIN.

THE following are the probable arrangements for the Friday evening meetings before Easter, 1876, to which members and their friends only are admitted:—Friday, January 21, Professor Tyndall, LL.D., F.R.S., M.R.I., "The Optical Deportment of the Atmosphere in relation to the Phenomena of Putrefaction." Friday, January 28, Professor Huxley, LL.D., F.R.S., "The Border Territory between the Animal and the Vegetable Kingdoms." Friday, February 4, W. H. Preece, Esq., M.R.I., "The Applications of Electricity to the Protection of Life on Railways." Friday, February 11, William Crookes, Esq., F.R.S., "The Mechanical Action of Light." Friday, February 18, C. Wm. Siemens, Esq., D.C.L., F.R.S., M.R.I., "The Action of Light on Selenium." Friday, February 25, the Lord Lindsay, M.R.I., "The Transit of Venus." On Friday, March 3, it was announced that the lamented Earl Stanhope, F.R.S., Pres. Soc. Antiq., M.R.I., would lecture on "The Ancient Sun Worship, and the Remains of it in England," but, of course, other arrangements have now to be made. Friday, March 10, Professor W. H. Flower, F.R.S., "The Extinct Animals of North America." Friday, March 17, Sir Henry Sumner Maine, K.C.S.I., "The Later History of the Fief and Manor." Friday, March 24, Professor Odling, M.A., F.R.S., M.R.I. Friday, March 31, Edward Burnett Tylor, Esq., F.R.S., "Ordeals and Oaths." Friday, April 7, Professor James Dewar, F.R.S.E., "The Physiological Action of Light," Part II. On April 14 and 21 (the Fridays in Passion and Easter Weeks) there will be no Evening Meetings. After Easter the Friday evening meetings will be resumed on April 28, and continued till June 9, without intermission.

The lecture arrangements before Easter are as under:—Professor Alfred H. Garrod, M.A., Fellow of John's College, Cambridge, Fullerian Professor of Physiology, Royal Institution, twelve lectures on the Classification of Vertebrated Animals, on Tuesdays, January 18 to April 4. John Hall Gladstone, Esq., Ph.D., F.R.S., Fullerian Professor of Chemistry, Royal Institution, eight lectures on the Chemistry of the Non-Metallic Elements, on Thursdays, January 20 to March 9. William Spottiswoode, Esq., LL.D., Treas. R.S., Sec. R.I., four lectures on Polarised Light, on Thursdays, March 16 to April 6. R. P. Pullan, Esq., M.R.I.B.A., three lectures on his Excavations in Asia Minor, on Saturdays, January 22, 29, and February 5. W. T. Thiselton Dyer, M.A., B.Sc., F.L.S., Assistant Director, Royal Gardens, Kew, four lectures on the Vegetable Kingdom; the Boundaries and Connexions of its Larger Groups, on Saturdays, February 12 to March 4. Professor G. Croom Robertson, M.A., three lectures on the Human Senses, on Saturdays, March 11, 18, 25. Edward Dannreuther, Esq., two lectures on Wagner and his Trilogy, with pianoforte illustrations, on Saturdays, April 1, 8.

Candidates when proposed by four members are immediately admitted to all the privileges of the Institution. They are elected by ballot at the general monthly meetings, and pay on election ten guineas (five guineas as an admission fee, and five guineas as the first annual payment); or sixty guineas in lieu of all payments. Each member may admit two persons to the Friday evening meetings, and for every additional subscription of twenty guineas at one time, or three guineas per annum, is entitled to introduce one visitor to the morning lectures. Annual subscribers pay five guineas, and one guinea as an admission fee. They have not the privilege of attending the Friday evening meetings.

The wives of members, and sons and daughters (under the age of twenty-one) of members, are admitted for the season, to all courses of lectures on the payment each of one guinea, and to every separate course of lectures on the payment each of half a guinea. Subscribers to lectures (not being members) for all the courses of lectures (extending from Christmas to Midsummer) pay two guineas. For a single course of lectures, one guinea, or half a guinea, according to the length of the course. For the Christmas course, children under sixteen years of age pay half a guinea.

THE HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Hospital Sunday Fund was held at the Mansion House last week, the Lord Mayor in the chair. His Lordship was appointed President of the Fund for the year ensuing, and Alderman Sir Sydney Waterlow, M.P., Vice-President. The Council, for the same period, of fifty clergymen and an equal number of laymen were elected, the names including those of the Bishops of London, Winchester, and Rochester; the Duke of Norfolk; Earls Russell, Derby, Cadogan, Stanhope, and Shaftesbury; Lord George Hamilton, M.P.; Cardinal Manning; the Deans of St. Paul's and Westminster; the Chief Rabbi; and the Archimandrite. The General Purposes Committee is the same as that of last year, excepting that the name of Mr. Jabez Hogg has been substituted for that of Dr. Andrew Clarke, and the names of all lady members are omitted, ladies being no longer eligible for election to the Council. The Distribution Committee comprises the following names:—The Lord Mayor, Sir Sydney Waterlow, M.P., Lord Ashley, Alderman McArthur, M.P., Mr. S. Morley, M.P., Mr. George Callender, Dr. Sedgwick Saunders, Mr. Jervoise Smith, and Mr. T. Turner.

The promoters of the movement known as "Hospital Sunday" in the metropolis have not had great cause to congratulate themselves on the success of the undertaking during the three years of its existence; but it would appear that fresh difficulties are likely to be placed in their way, if we may judge from the communications which have recently been published in the public journals from the Baroness Burdett-Coutts and Mr. Auberon Herbert.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A QUARTERLY COURT of the Directors of the Society was held on Wednesday, January 12, by the kind permission of the Royal Medical and Chirurgical Society, in their rooms, Berners-street. In the unavoidable absence of the President, Mr. J. G. Forbes, V.P., presided. At the meeting, grants amounting to £1143 were made to fifty-seven widows, £52 was voted to thirteen children, and assistance was given to four children from the Copeland Fund—making a total of £1220 10s. The expenses of the quarter were £66 11s. The applications of two widows and one child for grants were accepted; and one child was added to those receiving assistance from the Copeland Fund. Four new members were elected. The resignation of Mr. Renton, the collector, was announced; and, on the motion of Mr. Fuller, acting-treasurer, it was resolved that the secretary be empowered to apply for and receive future subscriptions: a printed notice to be sent to every member half-yearly.

MOLLUSCUM CONTAGIOSUM.

THE *Vierteljahrschrift für Dermatologie und Syphilis*, Erstes Heft, 1875, contains an article by Dr. Cæsar Boeck, of Christiania, on the Histology of Molluscum Contagiosum, in which he takes a rather different view of the nature of that disease from that which has hitherto been current in England. We may as well say, once for all, that Dr. Boeck understands by molluscum contagiosum the same disease that Bateman first described, and which has been investigated by Fagge, Duckworth, and others in this country, and abroad by Virchow and Retzius. He disagrees, however, from those observers who consider it a disease of the sebaceous glands, and regards it as due to a peculiar degenerative change in the cells of the rete mucosum. He founds his opinion first on the microscopical examination of the contents of a molluscum when pressed out in the ordinary way. These are made up of two kinds of elements—(*a*) more or less oval, sharply defined, transparent bodies, which show no trace of a nucleus; and (*b*) epidermic cells of peculiar shape, which are often non-nucleated, or rather which present more or less deep impressions on their surface, evidently corresponding to the elements of the first kind which have fallen out. The elements (*a*) are those which have been termed "molluscum bodies" by some writers. They have a peculiar fatty look when agglomerated with the epidermic cells (*b*). The question—"What are these molluscum bodies?" is that which Dr. Boeck has specially attempted to answer; and his answer is that they are only epidermic cells which have undergone a peculiar degeneration. This consists in an alteration of the protoplasm of the cell, which appears always to begin immediately around the nucleus. In a vertical section through the lower part of a molluscum, at first several layers of normal rete cells are met with, and these gradually give place to other cells, in which the nucleus has a peculiar shining margin, generally quite distinct from the nucleus itself. This margin increases in width in other layers of cells, until, at last, the new material fills the whole cell, which becomes larger than before, and of a more regularly oval shape. These altered cells, when aggregated together in vast numbers, form the body of the molluscum wart, and have been falsely regarded as of the same nature as those in a sebaceous gland. They contain, however, no trace of fat, nor do they give the reaction of amyloid degeneration with iodine and sulphuric acid. Dr. Boeck has been unable to find any similar cells in a number of comedones, acne pustules, and atheromata which he has examined; and though Bärensprung has described such in an enlarged sebaceous gland, this is a purely exceptional case, and it is certain that such cells only constantly exist in the molluscum contagiosum. Dr. Boeck is inclined, with Virchow, to regard the disease as a "hyperplastic epithelioma." He accepts the idea of its contagiousness, but without offering any elaborate explanation of its nature. He only conceives it possible either that the molluscum bodies may be able to increase in number by a process of division, and, if transferred to another individual, may continue to grow there, or else that they may be able by contact with healthy cells to set up in them a pathological process similar to their own.

THE REPORT ON THE METROPOLITAN WATER-SUPPLY FOR THE MONTH OF DECEMBER.

THE official report on the water-supply of the metropolis for the month of December shows a great improvement in the quality of the water as compared with the examinations recorded during the previous month. As regards those companies drawing their supplies from the River Thames, this is, of course, accounted for by the greater absence of floods, which render the water difficult to filter in the turbid state in which it is then received at the various intakes. The New River Company is engaged in the sinking of a new well into the chalk formation at Turnford, to obtain at that place a fresh supply of water by a large bore into the "lower green sand." This boring was commenced at the beginning of 1874, and it had reached a depth of 740 feet from the surface in November last. At this depth it has entered the marl below the chalk, and is now being widened out to the diameter of thirty-four inches, preparatory to the insertion of the tubes which will be required for further boring through the marl and gault. To provide for the increasing demands of their district, the Company are making several important additions to their distributory works, to effect the separation of the very different levels of their service into convenient zones, and to add to the power and means of communication by which their different stations are enabled to assist one another. The intended works include five new filtering-beds at Hornsey, of a joint area of three acres and one-third; four new engines at the same place, of a joint power of 440 horses; a new high-service reservoir on Crouch Hill, to be capable of holding about 12,000,000 gallons of water; and about thirteen miles of large mains to be laid down as lines of communication between the works just described, and for connexions with existing pipes.

FEVER IN COLD-BLOODED ANIMALS.

SOME curious and important experiments on the above subject have lately been reported by Dr. O. Lassar (*Pflüger's Arch.*, x., 633). He placed six vessels of equal size in a room kept at a constant temperature. Three of them contained 600 grammes of water each, and the other three each 300 grammes of water and healthy frogs of an approximate weight of 300 grammes. It was found that at the end of from twelve to forty-eight hours the temperature, which at the commencement of the experiment was the same in all the vessels, had risen in the three last about 0·10 to 0·15 of a degree Centigrade, thus proving that the frogs had evolved in this period perceptible quantities of heat. In a second series of experiments, "pyrogenic" substances, such as putrefying blood or albumen, were injected into the lymph-sac of frogs, with the result of rendering them seriously ill, and even of killing some of them. The six vessels were then arranged as before, but so that two contained 600 grammes of water each, two 300 grammes of water and 300 grammes of healthy frogs, and the last two each 300 grammes of water and 300 grammes of the frogs which had been made ill by injection. It was then found that although there was the same difference of temperature between the vessels which only held water and those which held the frogs as in the first series of experiments, yet there was not the slightest perceptible difference between the temperature of the vessels containing the healthy and the sickly frogs; or, in other words, the frogs which ought *à priori* to have had an elevated temperature, in reality showed no sign of fever. The same negative result was obtained when extensive inflammations were excited in the frogs by means of powerful caustics, nor could the least increase of temperature in comparison with healthy frogs be detected by passing a thermometer into the stomach, although the instrument was delicate enough to detect a difference of one-fortieth of a degree Cent. These experiments, if they are to be relied on, prove that the fever of some cold-blooded animals is a *cold* fever, and lacks one of the main characteristics of fever in warm-blooded creatures. It would be interesting to repeat them with animals larger than frogs—*e.g.*, lizards.

ANALYSTS DIFFER.

PUBLIC confidence will, we fear, be rudely shaken by the result of the recent prosecution of a Southwark cheesemonger under the Food and Drugs Act, for selling as pure butter a compound alleged to contain not a particle of that substance. The prosecution was instituted by the Vestry of St. George the Martyr, the public analyst for the district, Dr. Muter, having certified that the compound consisted

entirely of foreign fat. The defendant demurred to Dr. Muter's certificate, and the magistrate at the Southwark police-court ordered a portion of the butter complained of to be sent for analysis to Mr. Bell, the public analys of the Inland Revenue at Somerset House. At the adjourned hearing of the case, Mr. Bell reported that the sample sent to him was pure butter, and contained—water 9·83 parts, salt 3·7, caseine 9·3, fat 85·54. Dr. Muter contended that his analysis was faithfully and truly given, and called Dr. Dupré, lecturer on chemistry at Westminster Hospital, and Mr. G. W. Bignall, public analyst for Greenwich, to confirm his analysis. The magistrate decided that with the report of the public analyst to the Government before him he was bound to dismiss the case, and ordered the Vestry to pay the costs of the Government analysis. This case shows how difficult it is to prove whether a given sample of butter is or is not genuine. There can be no doubt that all the gentlemen engaged in the above case reported faithfully according to the best of their knowledge. Yet here we find two public analysts stating that a sample of so-called butter was composed entirely of other substances, whilst the Government chemist declares that the sample was genuine butter. When such authorities differ, it is, perhaps, better that they should settle the dispute in their own way; we certainly have no intention of attempting a solution. Meantime, the public will do well, in making their purchases of butter, to judge of the quality thereof by exercising their own special senses of taste and smell,—tests, it may be added, more ready and practical than any chemical reagent.

THE PHYSIOLOGICAL ACTION OF EMETICS.

Experiments lately made on dogs by Dr. Chouppe, of Paris (*Archives de Physiologie*, 1875, page 101), have shown that whereas apomorphia and tartar emetic retain their effect, even in small doses, when the pneumogastric nerves have been divided below the diaphragm, emetin, the active principle of ipecacuanha, becomes entirely inert. It therefore appears that emetin excites vomiting by its direct action on the terminal twigs of the vagus in the walls of the stomach, from which the stimulus is reflected to the co-ordinating centre for the muscles which take part in the act. This view is confirmed by dividing the spinal cord below the second cervical vertebra, and then injecting emetin into the animal's veins. The injection is followed by powerful contractions of the stomach, just as in the act of vomiting, as well as by movements resembling retching in the pharynx and mouth, although there is no discharge of the contents of the stomach owing to the paralysis of the diaphragm and abdominal muscles. The conditions of the experiment exclude the possibility of any stimulus being conveyed through the medium of sympathetic nerve-fibres. The view that emetin acts directly on the stomach is strengthened by the fact that vomiting can be more quickly excited by the preparations of ipecacuanha taken by the mouth than when they are injected into the veins. Dr. Chouppe's experiments led him to the belief that apomorphia causes sickness chiefly by a direct stimulus to the co-ordinating centre in the medulla oblongata, although it probably also acts to a less degree on the ends of the vagus fibres in the walls of the stomach. On the other hand, the action of tartar emetic appears to be less on the co-ordinating centre, and more on the vagus fibres, for smaller doses of it are required if taken directly into the stomach than if injected into the veins.

THE SALARIES OF MEDICAL OFFICERS OF HEALTH.

It is not encouraging to medical officers of health for combined districts when some one or more of the districts in union threaten to secede unless the medical officer will consent to a reduction of his salary. Medical men of standing and repute have been induced to relinquish their private practice in order to devote their whole time and attention to the carrying out of the Sanitary Acts; and nothing can be more calculated to cool their zeal for sanitary reform than the experience that their efforts may be rewarded by an endeavour to haggle and bargain about the money value of their services. An instance of this kind occurred in Cumberland about a year ago in the case of Mr. J. M. Fox, Medical Officer for the Cockermouth Union Sanitary Authority. Workington, which is one of the districts in the union, wished the Medical Officer to consent to take less than the original sum agreed upon, on the plea that they could get the work "done cheaper." Mr. Fox having refused to consent to this proposition, another medical officer was appointed in his place. It appears, however, that the "cheaper article" was not satisfactory, and we are glad to find from a report in the *West Cumberland Times* that Mr. Fox has just been re-elected. Mr. Fox is a very energetic and able medical officer of health, and has, by his representations and exertions, induced the Sanitary Authority of Flimby to expend £4000 in sanitary improvement. Flimby gained an unenviable notoriety two years ago as the dirtiest town in England, and small-pox and fever raged there. Now, however, as a result of strict medical supervision and active measures of sanitary precaution, Flimby is free from disease.

UNQUALIFIED PRACTICE IN CHELMSFORD.

A correspondent at Chelmsford sends us a handbill which has been issued by a "Dr. Young," who describes himself as a "physician and surgeon of thirty years' practical experience," and who has recently opened a surgery in that town. Dr. Young further states that he is "M.D. of a foreign university, obtained long before the passing of the Medical Registration Act." This university prefers the distinction of not being enrolled by Act of Parliament, as it grants no licence to kill, but to cure,—which, says Dr. Young, he can do "when others fail," his opinion on disease being, as he modestly puts it, "considered the best in England." He also announces that he "can give a certificate of death, or otherwise." If Dr. Young is wise, he will give the "otherwise." If he were to give a certificate of death, it is not improbable that it would be the means of getting him into difficulties which might perhaps end in the working classes of Chelmsford being deprived of the inestimable "boon" now within their reach.

FALSE CERTIFICATES OF DEATH.

On Tuesday, Mr. Humphreys, Coroner for East Middlesex, and a jury were engaged in inquiring into the circumstances attending the deaths of two children who had died without having been attended in their last illness by a duly qualified medical man. In the first case the child was only a fortnight old, and had been ailing for two days. The mother sent to Mr. Bellaers, a chemist residing at Oxford-street, Stepney, who prescribed some medicine, of which three doses were administered, but the child died the same night. When applied to for a certificate, Bellaers gave one signed in the name of George Monteath, L.S.A. Mr. Monteath, who was present at the inquiry, said that he resided in Chrisp-street, Poplar, but he did not see patients there. His principal business was carried on at a chemist's named Garstens, in Kirby-street, Poplar, and he also practised at two other chemists' establishments—viz., at Bellaers', Oxford-street, Stepney, and at Saph's, St. Leonard's-street, Bromley. He did not see the deceased himself, but after he had heard the particulars of the death he directed Bellaers to make out and sign the certificate of death in his name. In the second case, that of a child fifteen months old, Bellaers also attended, and signed the certificate of death in Mr. Monteath's name. Mr. Monteath said that he did not sign the certificate himself, as he had severe rheumatism in his hands. The jury in this case said "that they strongly reprobate

the practice of any qualified practitioner giving a certificate as to death without his personal knowledge of the case, and they, further consider that the certificate is illegal." With the opinion of the jury we entirely concur, and the Registrar-General ought in the public interest to take the matter up and institute proceedings against the person issuing such false certificates. If a person holding a registered qualification can authorise chemists all over London to sign certificates in his name, whether he had seen the deceased persons or not, the medical profession has no securities, the public has no safeguards against quackery and charlatanism, medical registration is a delusion, and registration of causes of death worse than a farce. We may add that Bellaers was recently prosecuted, under the Apothecaries' Act, by the East London branch of the Medical Defence Association for practising as an apothecary, and paid the full penalty of £20.

THE WEATHER IN NAPLES.

A GENTLEMAN writing from Naples, under date January 6, gives the following particulars concerning the weather in that place:—"We have now not merely social but real material ice. There can be no doubt about it, as I have seen this morning buckets and vessels of various sizes full of solid ice. At eight o'clock my thermometer in the open air stood at two degrees below freezing-point, and the mountains as far as I can see are white with snow. Such a winter we have not had for many a year. It was ushered in by deluges of rain and terrific storms in November, lasting till about December 6. From that time, with the exception of two or three heavy showers at night, the weather has been delicious. Two or three days ago the wind went round from the north to the west, and we were in hopes of getting some change, but after a heavy shower or two it went back to the old quarter, and snow again covered the mountains, while bitter cold nipped us all. Still we have a cloudless sky and a bright sun, which by mid-day will warm us and send the blood coursing through the veins. A little hoar-frost is not uncommon in the south, and sometimes a thin silver-paper leaf of ice is observed, but anything like the cold we now have I have not felt for some years. It holds out the promise of a mild spring and a good harvest, however, and we can have no reason to complain."

THE OUTBREAK OF FEVER ON BOARD H.M.S. "SULTAN."

SHORTLY after leaving England for the Tagus, some cases of fever occurred on board H.M.S. *Sultan*, in consequence of which she was sent to Gibraltar in order that the sick might be removed to hospital. The fever, however, in spite of all precautions, continued to spread, and as this has given rise to the belief that the origin of the outbreak must exist on board the vessel, orders were given for her return to Devonport, where she has now arrived. It is stated that the accounts of the fever have been greatly exaggerated, there being only two cases on board, although some others are suspected; these were immediately removed to the Naval Hospital at Stonehouse, but no one else either boarded or left the vessel, not even the captain to report himself. Whether the reports have been exaggerated or not, the crew of the *Sultan* is to be turned over to the *Canopus* hulk, and the vessel is to be thoroughly disinfected.

THE RECENT DEATH FROM CHLORAL POISONING.

AT the inquest on the body of the lady who died recently at Exeter from an overdose of chloral, it transpired that the deceased was in the habit of obtaining it from a local chemist in the form advertised and sold as "Hunter's solution of chloral, or sedative draught and sleep-producer." This preparation is sold, it appears, in ounce-and-a-half bottles as a patent nostrum. Each bottle contains 300 grains of pure chloral hydrate, or twenty-five grains to the drachm. At present no restrictions whatever are placed upon its sale, neither are the bottles labelled "Poison." These matters certainly demand immediate attention, and we hope that stringent restrictions will at once be promulgated with a view to the prevention of such lamentable occurrences as those we have recently had to chronicle.

SIR DAVID DEAS, K.C.B., INSPECTOR-GENERAL OF HOSPITALS AND FLEETS.

THE death of Sir David Deas occurred at 32, Heriot-row, Edinburgh, the residence of his brother, Lord Deas, on the 15th inst., in the sixty-ninth year of his age. The deceased was born in 1807, entered the navy in 1828, and was chief medical officer of the naval forces engaged during the Russian war, and also in the Chinese war up to the peace of Tientsin. Was appointed Inspector-General of Hospitals and Fleets in 1855, and was placed on the retired list in March, 1872. Was an officer of the Legion of Honour, and Knight of the fourth class of the Medjidie.

THE FORENSIC RELATIONS OF THE WHITECHAPEL MURDER.

IT has been represented to us that Mr. Bond feels himself seriously aggrieved by certain comments that we felt it our duty to make on some points in the getting-up and the presentation of the medical evidence in the Wainwright case, and documents have been placed before us showing that in some particulars the reports on which we relied, of the proceedings before the coroner, the magistrates, and at the trial, were imperfect or incorrect. We very gladly receive these documents, and make the corrections required by the information they supply. We spoke of several examinations having been made of the body of Harriet Lane; but we understand that Mr. Bond states that he made one examination only on behalf of the prosecution, and one report; and that though he saw the remains five times, he was present on at least three occasions only officially, while others examined the body. Of course we accept Mr. Bond's statement.

With regard to our observation on the fact that the scar on the leg was not discovered till its existence had been mentioned by Harriet Lane's father, Mr. Bond has stated that from the horrible condition of the body it would have been extraordinary had a scar been found without having been specially looked for; but that, as is well known, when he had "scraped away very carefully the chloride of lime and earth which thickly covered most of the body," the scar—a "most important link in the chain of evidence supporting identification"—was discovered. We most willingly give Mr. Bond's statement on this point also.

Mr. Bond objects, we understand, to our remarks on his employment of technical terms, and to our observation that some of them were so combined as to seem sheer nonsense. As we said when we wrote the article referred to, we made use of the reports in the *Times*, and we must observe that the reports in that journal are generally accepted as particularly accurate and trustworthy. Now, in one, at least, of those reports we find, *inter alia*, the expression "cicatrix of a scar," which, we submit, can hardly be called good sense, at any rate. But we learn that Mr. Bond carefully explained to the jury all the medical or technical terms used by him, while the reporter omitted his explanations; that he was, moreover, reported to have said many things which he did not say; and that the report contained other errors. Again we say we willingly accept and publish the corrections, now for the first time put before us. In noticing the statement that "all the hair corresponded, examined under the microscope, in colour, texture, brittleness, and coating of inorganic, or, rather, of granular matter," we expressed a wish to know how brittleness is estimated under the microscope, and desired some knowledge of the granular coating spoken of. The information we wished for has been supplied. Mr. Bond has stated that the hair was very brittle, and broke easily, and that "the fractured ends could be seen sharply defined under

the microscope"; this sharpness of definition was considered evidence, obtained by the microscope, of brittleness. The granular coating, we are informed, consisted of dirt. It appeared to us that at the trial Mr. Bond had been deposed from the position of leading medical witness for the prosecution, as he was put in the witness-box after Mr. Larkin, and was examined on that gentleman's evidence. We have, however, seen a statement by the Solicitor of the Treasury that our inference was incorrect; and we at once withdraw what we said on that point.

We make all these corrections most willingly, and only regret that they were not much sooner laid before us. The remarks which we made were made purely in the interests of medical science, and, as we have elsewhere said, were not in any degree either prompted or influenced by any *animus* whatever against either of the medical witnesses. We have not the pleasure of being acquainted with either of them; and we have not, and cannot have had, any feeling in any way or degree hostile to either. We therefore, without hesitation, withdraw, and regret, any expression offensive or painful to Mr. Bond personally; and we will take this opportunity to congratulate him on the eulogy passed by the Lord Chief Justice on his evidence, as presented at the trial. We had not at first observed this when reading the *Times*' report of his Lordship's summing-up; but, no doubt, a sentence which we supposed to allude to Mr. Bond's eminence generally, did, in reality, refer to his evidence.

Finally, we must be permitted to express once more our regret that Mr. Bond had not sufficient confidence in the character this journal generally enjoys for justice and fairness to place sooner before us any points on which he considered that we had judged him unfairly or unjustly.

FROM ABROAD.

The Urine of New-born Infants.

The following are the conclusions of a paper presented by MM. Parrot and Robin to the Académie des Sciences (*Gaz. Hebd.*, January 14), "On the Normal Urine of New-born Infants, with Applications to Physiology and Clinical Medicine." 1. A new-born infant passes four times more urine than an adult, by kilogramme of its weight. 2. Under quite exceptional circumstances (as the urine of the first day, defective or faulty alimentation, etc.) the urine may furnish a very slight deposit, consisting of crystals of uric acid, of oxalate of lime, or urate of soda. Vegetable ferments seem to be more rapidly developed in it than in the urine of the adult. 3. It furnishes a neutral reaction with litmus. Acidity of the urine generally indicates that a too long interval has elapsed between the sucklings, and in some cases may point to a pathological condition. 4. The urine contains, on a mean, 3·3 grammes per litre of urea, or 80 centigrammes per kilogramme, in an infant of 3850 grammes; but an infant from eleven to thirty days old will render, in the twenty-four hours, about 90 centigrammes of urea, or 23 centigrammes per kilogramme of its weight. 5. The age, the weight, and the temperature notably influence the quantity of urea. Before attributing differences that may be observed to a pathological condition, we must assure ourselves that the excess of urea surpasses the limits which we have assigned for variations due to these causes. 6. There exists a constant relation between the quantity of urea and the colour and reaction of the urine, so that the inspection of these two characters enables us to estimate clinically the proportion of urea. 7. Traces of uric acid exist normally in the urine of the new-born, but they escape all dosage. The urine of the first day contains more. Extractive matters are not chemically appreciable, but the urine contains hippuric acid and allantoin. 8. Under no circumstances does the normal urine of the fœtus or the new-born contain albumen, and it exerts no reducing action on Barreswill's liquid. 9. The new-born consumes in the twenty-four hours, and per kilogramme of its weight, twice as much nitrogen as the adult; but it renders six times less by the urine, although it fixes at least as much oxygen. It therefore burns less, while absorbing more, of the combustible, and at least as much of the comburant. This excess of assimilation, demonstrated experimentally, is in harmony with the daily increase of weight—an increase which part of the oxygen absorbed contributes to. 10. When the urine becomes modified in any of its characters, beyond the limits traced, we should first direct attention to irregularity of alimentation, and then to morbid conditions. 11. Sometimes attention to the urine enables us to appreciate a special pathological condition, or a particular symptom, as œdema, diarrhœa, etc. 12. Such attention may sometimes enable us to foresee the near advent of accidents, such as œdema, athrepsia, etc., for lesions of nutrition precede the external signs of these affections; and the child is already ill, although no symptom reveals its condition, of which the changes in the urine are the index.

Milk Regimen in Puerperal Albuminuria and Eclampsia.

The paper, of which the following is an abstract, was originally published by M. Tarnier in the *Progrès Medical*, and has been reproduced in the *Bulletin de Thérapeutique* for December 30. The utility of the lacteal regimen in Bright's disease, M. Tarnier observes, first suggested to him that it might be also efficacious in the albuminuria of pregnancy; and for some years past he has employed it at the Maternité for any of the pregnant women whose urine furnished albumen. The results he has obtained are remarkably similar and very satisfactory, the albuminuria (except in one case, a subject of advanced Bright's disease) always having rapidly diminished or disappeared before delivery. On the first day he gives one litre of milk (one pint and three-quarters, imperial) and two portions of food, two litres and one portion of food on the second day, three litres and one-half a portion of food on the third day, and on the fourth and following days four litres without any other food or drink. In severe cases, and especially if any threatenings of eclampsia have been observed, the patients are at once put on three or four litres per diem. The influence of this regimen has never been long in manifesting itself, and in a week or fortnight after it has been commenced there is found to be a very notable diminution, or even a disappearance of the albuminuria.

"The possible cure of albuminuria during pregnancy gives me reason to hope that in a good number of cases we may prevent eclampsia by the same means. In fact, it is admitted by most accoucheurs that eclampsia is rarely observed except in women the subjects of albuminuria. According to my personal observations, I have found that in the subjects of albuminuria the eclampsia very often occurs before the commencement of labour, this not taking place until after the appearance of the convulsions—but so near to them that the practitioner who is called in in all haste witnesses at the same time the signs of eclampsia and the phenomena of labour. Thus is explained how the opinion, so much to be regretted, has gained ground, that the convulsions are habitually engendered by the pains of labour, while in reality the labour most commonly appears only after the commencement of the convulsive attack. Sometimes, it is true, the eclampsia only comes on during the middle of the labour; but here again it has been preceded by albuminuria,—and this is a point I insist upon. It will be objected to me that cases of eclampsia occur without albuminuria; and I know that there are such, but these are of extreme rarity. Almost always the cause of the eclampsia is to be found in the modifications of the economy produced by a pre-existing albuminuria, and this latter affection must have lasted for some time. If it is possible to cure the albuminuria of pregnancy, we have also the means of preventing eclampsia. My cases are not in a considerable enough number to allow me to draw a positive conclusion, and I must content myself with stating what I have seen. In the patients I have submitted to the lacteal regimen the albuminuria has diminished rapidly or disappeared, and in these eclampsia has never occurred. Will it be the same whenever this regimen is resorted to in time? or will the failures prove considerable? This it is impossible to know without a greater number of cases than I shall alone be able to record. Actually I attribute the success which I have obtained to the lacteal regimen having been applied in *opportune time*. Albuminuria approaches in a very insidious manner, and sometimes is revealed by no sign unless the urine be examined in spite of all the appearances of most perfect health. Therefore all pregnant women in my service, whether they exhibit infiltrations or not, are examined with relation to albuminuria, their urine being often analysed. As soon as albumen is found to be present, the milk regimen is at once put into force, and continued until the albumen disappears. We must not allow

ourselves to be surprised by eclampsia, for it is then too late. The facts which I now publish are not sufficiently decisive for all doubt to have been removed from my mind, but they appear to me to be of sufficient interest to endeavour to engage others to make similar observations."

Tæniafuges employed in the Paris Hospitals.

At the request of the Paris Hospital Medical Society, Prof. Regnauld, Director of the Central Pharmacy of the Hospitals, has supplied (*Union Méd.*, January 13) a statement of the amount of tæniafuges which has been consumed in those establishments during the ten years 1864-74—kousso, pumpkin seeds (*Cucurbita maxima* and *C. pepo*), pomegranate bark, and male fern having been the substances employed, and the quantities being stated in kilogrammes, or 1000 grammes (2 lbs. 8 oz. troy).

Years.	Kousso. kil.	Pumpkin seeds. kil.	Pomegranate. kil.	Male fern. kil.
1864 . .	2·100	—	11·200	9·500
1865 . .	3·	2·500	18·600	5·225
1866 . .	5·	1·125	4·500	3·650
1867 . .	2·	—	5·750	7·
1868 . .	6·300	4·900	21·950	1·500
1869 . .	5·	3·500	15·750	4·
1870 . .	5·	3·250	8·200	4·
1871 . .	5·	—	10·	11·500
1872 . .	10·	2·500	13·750	5·
1873 . .	11·	11·500	16·100	16·
1874 . .	10·	4·	18·125	16·250

From this table it is evident, Prof. Regnauld observes, that the consumption of tæniafuges has greatly increased since 1864, and, therefore, that the number of patients suffering from this malady must have greatly increased during this period. But if, as from personal observation he believes, the consumption of unusual animal substances which occurred during the siege played an important part in the exceptionally frequent transmission of entozoa, there ought to exist a marked difference between the mean annual amounts prescribed during the years that preceded 1870 and those which followed that date. Proceeding upon that idea, he has therefore prepared a second table indicating the mean annual distribution of the tæniafuges before and after 1870.

	Annual mean before 1870. kil.	Annual mean after 1870. kil.
Kousso . .	3·900	9·
Pumpkin seeds .	3·006	5·311
Pomegranate .	13·008	14·025
Male-fern . .	5·147	12·

Thus tæniafuges which have obtained the highest credit (kousso and male fern) have more than doubled the quantities employed. The employment of pomegranate has undergone but a slight increase, dependent upon the less favour it now enjoys.

A Case of Movable Liver.

At the Military Medical Society of the Vienna Garrison, Prof. Chvostek reported (*Militararzt*, Dec. 17) a case of movable (*wandernder*) liver which occurred in the person of a woman who had borne twelve children, and who since 1869 had suffered from abdominal disorders. The practitioners under whose notice she came differed in their diagnosis of her case; the general opinion, owing to her cachectic and icteric appearance, being that she was suffering from carcinoma. Prof. Chvostek, on making palpation of the abdomen, perceived that the tumour had a sharp border below, which stretched between the Poupart's ligaments about an inch from the symphisis, and plainly exhibited a fissure. The suspicion that the tumour was formed by the liver was found to be correct when on raising up the pelvis the organ was replaced. The spleen was of a normal size. The symptoms were the same in this as in the seven other recorded cases, all of which occurred in women. The liver, sinking deeper and deeper, had in two of these reached the symphisis, and in its place a tympanitic resonance was perceived. The liver moved with every change of posture to the extent of one or two inches on the left side or on the right. In the recorded cases few inconveniences are recorded—in one only there being, as in the present, colicky pains. In the present case the pains seemed to be due in part to the stretching of the nerves and the vena porta, and a collateral circulation was visible as in cirrhosis of the liver. They may also be produced by the compression of the intestines by the displaced organ. As to the mode of production of the anomaly, various explanations have been given. Cantani supposes that during pregnancy the ligaments may have become inflamed and relaxed, so that after delivery they yield to traction. But these circumstances occur in many women, while the occurrence is a very rare one; and Prof. Chvostek considers that the most plausible suggestion is that of Meissner, who supposes that there is a congenital laxity of the suspensory and coronary ligaments. As predisposing to the displacement, there is the relaxation of the walls of the abdomen in consequence of frequent child-bearing, especially if the woman gets up too soon, carries heavy burthens, etc. The treatment of such a case is very arduous in consequence of the difficulty of applying effectually any apparatus or bandage without causing too much pain or compression.

GENERAL CORRESPONDENCE.

UPPINGHAM SCHOOL.

Letter from Mr. Alfred Haviland.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I am receiving numerous letters from medical attendants, parents, and others, asking me to inform them whether it is safe to send scholars back to this school on the 21st inst., I should esteem it a favour if you would allow me to state, through the medium of your journal, that I have no evidence before me as to whether or not the necessary structural alterations in the different houses have been completed, and the recommendations in my report, which was read on Saturday last only, as to the final disinfection of the infected houses have been carried out.

I certainly cannot recommend the return of the scholars until I have reason to believe that everything has been done that I consider necessary to insure the safety of the boys.

I am, &c., Alfred Haviland,
Medical Officer of Health to the Uppingham Rural Sanitary Authority.

Northampton, January 17.

*** For the information of parents and others, we add two paragraphs from the report made, on January 12, to the Local Government Board, by Mr. Robert Rawlinson, viz. first :—

"The Rev. E. Thring, the several masters, and the trustees gave unlimited orders to Mr. Tarbotton, in whom I have the utmost confidence, to make the fullest and most searching examination into the state of each school; and then, without regard to cost, to have the alterations and new works completed in the best possible manner. This has been done."

And, secondly, the concluding paragraph—

"I am of opinion that the trustees and masters have improved the sewerage, drainage, ventilation, and water-supply of the several schools in the best practicable manner, and that these establishments may be considered in all these respects as perfect as any houses can be made.'

THE HASTINGS SANATORIUM.

Letter from Dr. A. R. Croucher.

[To the Editor of the Medical Times and Gazette.]

Sir,—As a member of the Town Council of Hastings, I wish to explain to you that the Hastings Urban Authority have not, until the present time, had under their sole control any house used for the reception of contagious diseases. The Authority subscribed a sum in support of a sanitary aid association which was conducted by an energetic lady residing in St. Leonard's. I am glad to be also able to inform you that the purchase of the Sanatorium, with the alterations necessary to adapt the house to such a purpose, has been completed. If the inhabitants of Ore persist in petitioning the Local Government Board on the subject of the house which has been utilised as a sanatorium, I am convinced an excellent testimonial will be given us in favour of the site as now established. I am, &c., A. R. Croucher, M.D.

26, Grand-parade, St. Leonard's-on-Sea, Jan. 12.

THE LATE DR. GEORGE WEBSTER.

Letter from Mr. S. Cheetham.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some of the friends of the late Dr. George Webster propose to erect a memorial of him in Dulwich, where he lived for sixty years, and where many have cause to regret him for other than professional services. It is intended that this memorial should take the form of a drinking-fountain in a conspicuous spot in the village—a method of commemoration approved and desired by the venerable doctor in his lifetime.

It occurs to me that many members of the medical profession would desire to contribute, to perpetuate the memory of one who was for many years one of the chief promoters of the "British Medical Association," and who laboured in many ways for the benefit of the profession. I ask you, therefore, to permit me to mention in your columns that a committee has been formed with the object which I have described, and that subscriptions are received by the treasurer, Charles W. C. Hutton, Esq., J.P., Belair, Dulwich, S.E.

I am, &c., S. Cheetham, Chaplain of Dulwich College, Chairman of Sub-committee.

Dulwich, January 15.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, January 15.

Dr. Buchanan, President, in the Chair.

We publish in another column Mr. Netten Radcliffe's paper "On Plague." In the discussion which followed,

Mr. Liddle remarked that in 1831, when the doctors anticipated an outbreak of plague, the public generally were apathetic, and thought that undue alarm was created by such speculation; but before long, isolated cases of plague were recorded as occurring. No doubt the Local Government Board would take due precautions, and he believed these would prove effectual.

Dr. Macnamara alluded to his personal experience of the Pali fever in 1836-37. No doubt, from the observations made at the time, and from the history of the epidemic, that this was plague. It was introduced to India in the bales of goods carried through the caravan route between Persia and India across the intervening desert. Those engaged in unpacking the goods were first attacked; the fever spread with great rapidity to the surrounding villages, and hundreds of the natives died. The disease is attended with boils and carbuncles. Strict quarantine was established, so that it was not allowed to spread beyond neighbouring villages. The fever lasted for one or two days, and was followed by enlargement of the lymphatic glands, carbuncles, and abscesses; it was very fatal.

Mr. Harry Leach, as representing the Port of London, where the disease was most likely to make its first appearance, desired to know from what authority the initiative of precautionary measures should arise, *i.e.*, whether the Custom-house authorities or the sanitary officials. The old laws of quarantine distinctly refer to the Customs as the authority to set preventive measures in action.

The President was of opinion that in the event of plague reappearing, the epidemic would be less severe than formerly. The existence of sporadic cases in Europe would indicate, along with the ready means of intercommunication both by sea and land, that its progress would be rapid. He referred to the improved dwellings, mode of living, and sanitary reform since the epidemic of 1666, as against the likelihood of its reappearance. Typhus, although not stamped out, has not appeared as a severe epidemic for many years. Other visitations of fever, foreign to our climate, have not proved exceptionally severe, or even epidemic. The disease spreads essentially in a less occult manner than with cholera, the condition of spread being well known, and therefore easily guarded against, such as fomites. Should plague visit this country, he thought it would only be for a short period.

Mr. Netten Radcliffe, in his reply, disowned any idea of suggesting exceptional virulence for any future epidemic. He also considered that, with our knowledge of the spread of epidemics and the precautions to be taken, plague would not stand much chance of a prolonged visitation. He considered the local authority should be held responsible for taking the initiative, subject to suggestions on the part of the Customs. Special legislation would be unnecessary, because existing sanitary laws were quite sufficient.

Dr. Jacobs (of Guildford) differed from the author of the paper in considering that three important defects were to be found in the existing sanitary laws. First, because there is no machinery for preventing the occurrence of small-pox, for instance, before it has actually made its appearance in the locality where the law is to be put in force. Secondly, because the officer of health is not informed of the existence of sporadic cases until the epidemic is established in the neighbourhood. Thirdly, because there is no power to compel the local authority to provide proper hospital accommodation, and not sufficient power to compel the infected to go there.

At the earlier part of the meeting, Mr. Braden and Mr. Ireland were elected members of the Association, Mr. De la Motte an extra-metropolitan member; and Dr. Frederick Churchill was elected an associate.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 5.

William Overend Priestley, M.D., F.R.C.P., President, in the Chair.

ANNUAL MEETING.

The following gentlemen were elected Fellows of the Society:—Ed. J. W. Hicks, M.B.; Charles Henry Johnson, M.R.C.S.; and Francis Boynton Lee, F.R.C.S. Ed. (Heckmondwike).

New Preparation of Ergot.

Dr. Wiltshire exhibited a new liquid extract of ergot, prepared by Mr. Martindale, of New Cavendish-street. It was made with ammoniated alcohol, and was a remarkably active preparation of the drug.

Forceps.

Dr. Aveling presented a pair of curved short forceps.

Cyst of Larynx in an Infant.

Dr. Edis exhibited a specimen removed post-mortem, where death ensued thirty-seven hours after birth, on November 30, 1875. The mother was delivered at 9.30 a.m. of a living, apparently healthy, well-nourished female child, weighing eight pounds, and twenty inches in length. The duration of labour was eight hours. The child seemed to experience difficulty in breathing and sucking, and gave vent to a more or less continuous kind of feeble wail. Nothing abnormal could be detected on the most careful examination. It died within thirty-seven hours of its birth, and on examination post-mortem a small tense cyst, the size of a small hazel-nut, was discovered attached to the side of the larynx and nearly closing up the aperture. No other abnormal condition was detected.

Dr. Barnes thought the specimen of sufficient interest to be figured in the Society's *Transactions*.

Dr. Savage seconded the proposition.

Carneous or Fleshy Mole.

Dr. Wiltshire exhibited, for Dr. Bathurst Woodman, a specimen of this nature, sent up by Mr. Robert Hughes, of Woodbridge. The patient from whom it was removed was one of fifteen, aged twenty-nine. She had miscarried a twelvemonth before at about the fifth month. On August 15, 1875, she was delivered of a full-grown, healthy male child. On examination, a large, tough substance, about twice the size of the fist, attached to the placenta, was detected and removed, together with the latter. It closely resembled a large kidney. The points of interest in the case were the hereditary proclivity to plural births (the patient's mother having had two twin-births in succession), and the absence of any known cause for the death of one twin, the other reaching to full maturity. There were no symptoms of syphilis in the parents.

Dr. J. Williams inquired if there was any history of threatening hæmorrhage or abortion.

Dr. Wiltshire said he knew nothing more of the case than had been read. There was evidently an attempted formation of the anus and one or more eyes.

The President remarked that the specimen had somewhat

the appearance of a placenta succenturiata. He suggested a further examination of it by Dr. Barnes, Dr. Williams, and Dr. Woodman.

FIBROID OF UTERUS: GASTROTOMY.

Dr. ROUTH communicated the particulars of a case of extra-uterine fibroid of large size, removed successfully by gastrotomy from a patient aged thirty-two. The tumour weighed over seventeen pounds. Five days after the operation, the temperature rose to 105° F. in the axilla, the vaginal temperature being 106·4°. She was then placed bodily in an ice-water bath, and kept in for three-quarters of an hour. Consciousness returned, and the temperature sank to 100°, the axillary temperature a quarter of an hour later being 97°. A week subsequently, the temperature having again risen to 104°, the ice-water bath was repeated, which reduced the temperature to 99°. Eighteen days after the operation, about five ounces of intensely fetid, grumous, bloody pus were removed with the aspirator per vaginam, and the cavity was washed out with weak iodine. The pulse fell from 112° to 86° the same day, and the temperature in the vagina from 104·2° to 102·4°, it being 99·7° in the axilla. The abscess was subsequently opened per rectum, and a drainage-tube kept in. After rather a protracted illness, the patient recovered perfectly.

Dr. ROGERS, who had assisted at the operation and during the subsequent treatment of the case, remarked upon the after-treatment being most successful, and thought great credit was due to Dr. Routh for his management of the case throughout.

Dr. BARNES regarded the specimen as one of a fibroid tumour springing from the uterus. In many instances such tumours retained a close union with the uterus. In some cases they seemed to be of ovarian origin, and it was a question whether they could be regarded as uterine.

The PRESIDENT said that Dr. Routh's case was remarkable in more than one aspect, and he trusted that so interesting a communication would not be allowed to pass without full discussion. The points he thought of special practical importance were—the success of the treatment, when the temperature was high and the symptoms threatening, by the ice-bath; and the obvious abatement of septicæmic symptoms when irritating fluid was tapped from the peritoneal cavity through the rectum.

MALIGNANT TUMOUR OF THE OMENTUM, REMOVED POST-MORTEM.

Mr. G. D. BROWN (of Ealing) exhibited a specimen weighing over seventeen pounds, which, taken in connexion with Dr. Routh's case, had many points of collateral interest. The patient, a lady aged thirty-six, had observed the growth of the tumour for at least two years. Opinions had varied as to the nature of the case, but Dr. H. Smith (who had also seen the case) and Mr. Brown both regarded it as malignant disease of the omentum. She had been under Dr. H. Smith's care at Soho, where an exploratory incision had been made, when the growth was found to be so extensive and deeply seated as to make its removal a practical impossibility. The pain during the growth of the tumour was at times very distressing. The tumour was firmly adherent to the peritoneum at the back, but had no other attachment, and shelled out without cutting. In appearance it was nodulated and brain-like in colour. It weighed seventeen pounds ten ounces, and was twenty-four inches in circumference. The uterus and ovaries, as well as the other organs, were healthy.

Dr. H. SMITH explained that he saw the case when the tumour was quite small. An exploratory incision had been made to see if it could be removed, but he was unable to find any attachments or adhesions.

The annual meeting then took place. The list of officers for the ensuing year, recommended by the Council, was adopted by the meeting. The Secretary's, Auditors', and Librarian's reports were then read and adopted. Votes of thanks to the retiring officers having been proposed and carried, the President delivered his annual address.

A CONSERVATIVE DOCTOR WANTED.—The *Sentinelle du Midi*, published at Toulon, has inserted the following advertisement:—"A very pretty locality, situated on the railway line from Marseilles to Nice, and which is sure to prosper, is at this time in want of a doctor to whom, while awaiting the practice which will accrue, will be assured a salary of 2100 fr. An indispensable condition is that the doctor must be essentially a Conservative."—*Lyon Méd.*, January 16.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the stated monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, January 11, 12, and 13, the following candidates passed for the licence to practise Medicine:—

Armstrong, James Bailie.
Evans, Owen Thomas.
Hayes, Thomas Edward Darley.
McCarthy, Geoffrey.
McCoy, Thomas Joseph.
Meredith, Edward Bishopp.
O'Grady, Standish Thomas.
Walsh, Patrick Francis.
Worswick, Frederick Henry.

For the licence to practise Midwifery—

Armstrong, James Bailie.
Evans, Owen Thomas.
McCarthy, Geoffrey.
McCoy, Thomas Joseph.
Meredith, Edward Bishopp.
O'Grady, Standish Thomas.
Walsh, Patrick Francis.
Worswick, Frederick Henry.

At the same time the first part of the Professional Course was passed by

O'Mullane, Eugene Joseph.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the new Board of Examiners on the 17th inst., and when eligible will be admitted to the pass examination:—

Ambler, Horace E., student of the Middlesex Hospital.
Flewitt, Walter, of the Birmingham School.
Gabb, C. Baker, of St. Bartholomew's Hospital.
Gayton, Francis C., of St. Bartholomew's Hospital.
Good, F. Thomas, of St. Bartholomew's Hospital.
Johnson, John, of the Melbourne School.
Knaggs, R. H. E., of St. Thomas's Hospital.
Lake, W. Wellington, of St. Thomas's Hospital.
Langdon, John S., of University College Hospital.
Lightfoot, William S., of St. Thomas's Hospital.
Maclean, F. Beresford, of Guy's Hospital.
Nixon, Thomas A., of the Newcastle School.
Poynder, J. Leopold, of St. Bartholomew's Hospital.
Rigden, Brian, of University College Hospital.
Rowe, Bernard M., of St. Bartholomew's Hospital.
Wagstaff, John P., of the London Hospital.
Whitlock, Ernest W., of the Edinburgh School.

The following passed on the 18th inst., viz.:—

Bowman, H. Ernest, student of King's College.
Chalmers, William, of King's College.
Cowan, Frederic S., of St. George's Hospital.
De Latour, Bertrand E., of King's College.
Ellison, Frederick W., of St. Bartholomew's Hospital.
Happus, J. Devenish, of University College Hospital.
Husband, Walter E., of St. Bartholomew's Hospital.
Leighton, Andrew W., of King's College.
Mansell, Edward R., of Guy's Hospital.
Newington, Theodore, of St. Thomas's Hospital.
Oakley, Harry C., of the Westminster Hospital.
Perceval, M. W. C., of the Birmingham School.
Reid, Wm. Gladstone, of King's College.
Taylor, Herbert C., of King's College.
Taylor, Richard S., of Guy's Hospital.
Woollett, S. Winslow, of King's College.
Yoshida, Kingo Hedenari, of University College Hospital.

The following passed on the 19th inst., viz.:—

Bartlett, Felix P., student of St. George's Hospital.
Bolt, Henry S., of University College Hospital.
Burd, George V., of St. Thomas's Hospital.
Chesshire, Arthur E., of Guy's Hospital.
De Verteuil, Ferdinand A., of St. Thomas's Hospital.
Eastment, Grinstead S., of King's College.
Eccles, Robert, of the Dublin School.
Gallaway, Arthur W., of University College Hospital.
Gibson, William, of Guy's Hospital.
Graham, William, of the Dublin School.
Harris, S. Clabon, of the Westminster Hospital.
I'Anson, George A., of the Middlesex Hospital.
Landon, Edward, of St. Thomas's Hospital.
Lawton, John W., of the London Hospital.
Moorhead. James, of the Dublin School.
Morgan, Herbert D., of King's College.
Tribe, H. T. B., of the London Hospital.
Palmer, W. Pitt, of St. Bartholomew's Hospital.

The following passed on the 20th inst., viz.:—

Andrews, William S., student of University College.
Baber, Henry A., of Guy's Hospital.
Dale, Henry R., of University College.
Earle, J. Herbert, of Guy's Hospital.
Essex, W. Stanley, of University College.
Garman, Vincent C., of the London Hospital.
Gross, Charles, of Guy's Hospital.
Hampson, Joseph, of St. Bartholomew's Hospital.
Harvey, Joseph J., of the Birmingham School.
Maile, C. E. D., of St. Thomas's Hospital.
Morton, Shadforth, of University College.
Parry, George H., of Guy's Hospital.
Puddicombe, W. Noble, of Guy's Hospital.
Schlesinger, Richard E., of King's College.

Tibbitt, Frederick, student of St. Thomas's Hospital.
Watson, Henry, of St. Mary's Hospital.
Womersley, J. King, of Guy's Hospital.

Out of the 103 candidates examined, six were rejected on the first day, eleven on the second, ten on the third, and six on the fourth—making a total of thirty-three.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 13:—

Greene, Richard, Hayward's Heath, Sussex.
Stewart, Wm. Robert Henry, Harley-street, Cavendish-square.
Watters, George Thomas Brown, Belleville, Edinburgh.

The following gentlemen also on the same day passed their primary professional examination:—

Cuthbert, William Wood, St. Bartholomew's Hospital.
Webb, William Henry, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

MACAN, ARTHUR VERNON, M.B., M.Ch. Dublin.—Obstetric Surgeon to the City of Dublin Hospital.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The retirement of Fleet Surgeon William Fasken, M.D., as notified in the *London Gazette* of December 24 last, has been cancelled, and he has been placed on the Retired List under Her Majesty's Orders in Council of February 22, 1870, and February 4, 1875, from May 13 last, and he has been allowed to assume from that date the rank of Deputy Inspector-General of Hospitals and Fleets.——In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, Surgeon Robert Atkinson has been placed on the retired list of his rank from the 14th inst.

WAR-OFFICE—MEDICAL DEPARTMENT.—The restoration to full pay of Surgeon-Major James Leitch, M.D., which appeared in the *Gazette* of November 12, 1875, is cancelled; Surgeon Henry Lamb to be Surgeon-Major, *vice* Robert McNabb, M.D., retired on half-pay; Surg. Jeremiah James O'Grady is placed upon temporary half-pay; Surgeon Oswald Gillespie Wood, M.D., retires upon temporary half-pay.

BREVET.—Surgeon-Major James Leitch, M.D., retired upon half-pay, to have the honorary rank of Deputy Surgeon-General.

BIRTHS.

EDGELOW.—On January 13, at 18, Hertford-street, Mayfair, W., the wife of George Edgelow, M.D., of a daughter.

HURLSTONE.—On January 7, at Richmond Gardens, West Brompton, the wife of M. de G. Hurlstone, M.R.C.S., of a son.

LEADAM.—On January 16, at 80, Gloucester-terrace, Hyde-park-gardens, the wife of W. Ward Leadam, M.D., of a daughter.

LIVEING.—On January 4, at 11, Manchester-square, W., the wife of Robert Liveing, M.D., F.R.C.P., of a son.

MACAULEY.—On January 9, at Hatfield, Broad Oak, Essex, the wife of W. R. Macauley, L.K.Q.C.P.I., L.R.C.S.I., of a son.

WALKER.—On January 14, at 20, King Edward-road, Hackney, the wife of William Newman Walker, jun., M.R.C.S., of a son.

MARRIAGES.

BIRD—CHRISTISON.—On December 18, at Agra, William J. B. Bird, Lieut. Royal Artillery, son of Edward Bird, Esq., late Madras Civil Service, to Marion Augusta, eldest daughter of Alexander Christison, M.D., Bengal Army, Civil Surgeon, Agra.

BUTLER—RUNDALL.—On December 21, at St. George's Cathedral, Madras, William John Butler, Surgeon Madras Medical Service, son of the late William Butler, Superintending Surgeon H.E.I.C.S., to Ellen Maria, youngest daughter of the late James Rundall, Esq.

FITT—WARTON.—On December 7, 1875, at Trinity Cathedral, Port of Spain, Samuel Weekes Fitt, M.R.C.S., Resident Surgeon, Colonial Hospital, San Fernando, Trinidad, youngest son of the Hon. H. A. Fitt, Acting Receiver-General of the island, to Adela Mary, third daughter of Matthew Warton, Esq., Brentwood, Essex.

RICKFORD—SPENCER.—On January 13, at St. Andrew's, Chippenham, William Rickford, eldest surviving son of the late Richard Rowland, Esq., of Creslow, Bucks, to Ellen Ann, eldest daughter of Francis Speucer, F.R.C.S., of Chippenham.

WISE—CLARKE.—On January 13, at Banbury, John Stanton Wise, Esq., B.A., Assistant Master of Dover College, and only son of Robert Stauton Wise, M.D., of Beech Lawn, Banbury, to Elizabeth Anne, eldest daughter of T. Clarke, Esq., the Horse Fair, Banbury.

WYLIE—MACGREGOR.—On January 11, William Wylie, M.D., of Skipton-in-Craven, to Elizabeth Harvey, daughter of the late James MacGregor, Esq., of Glengyle, M.B.

DEATHS.

DEAS, SIR DAVID, K.C.B., L.R.C.S. Edin., Inspector-General of Hospitals and Fleets (retired), at 32, Heriot-row, Edinburgh, on January 15, in his 69th year.

MARSH, T. J. W., M.D., M.R.C.S. Eng., L.S.A., at his residence, 2, Dante-road, Kennington-park-road, S.W., on January 11, aged 56.

NOOT, WILLIAM LANE, M.R.C.S. Eng., L.S.A., at his residence in Cardigan, after a lingering illness, on December 12, aged 71.

STUTTER, F. A., M.D., M.R.C.S. Eng., L.S.A., at Farnboro' House, Upper Sydenham, Kent, on January 17, in his 50th year.

WEBB, THOMAS, L.R.C.P. Edin., M.R.C.S. Eng., at Barton-under-Needwood, Staffordshire, where he had practised for fifty years, on January 8, in his 76th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

GLOUCESTER INFIRMARY.—Surgeon and Assistant-Surgeon. Candidates must be F. or M.R.C.S. Applications, with testimonials, to the Committee, under cover to the Secretary, on or before January 27.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be unmarried and duly qualified. Applications, with testimonials, to the Secretary, Leith Offices, 34, Moorfields, Liverpool, on or before January 26.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to H. H. Hornby, Esq., 8, Knowsley-buildings, Tithebarn-street, Liverpool.

LONDON HOSPITAL, MILE END, E.—Assistant Obstetric Physician. Candidates must be M.R.C.P. Lond. Applications, with testimonials, to the House Committee, on or before January 31.

NORTH LONDON CONSUMPTION HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

ROYAL FREE HOSPITAL.—Three Junior Resident Medical Officers. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before February 2.

SEAMEN'S HOSPITAL, GREENWICH.—Visiting Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before January 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Burton-upon-Trent Union.—The Barton-under-Needwood District is vacant: area 12,892; population 3117; salary £45 per annum.

APPOINTMENTS.

Buckingham Union.—Thomas J. Denton, M.D. Edin., L.R.C.S. Edin., L.S.A., to the Third District.

Elham Union.—David S. E. Bain, L.R.C.S. Edin., to the Sellinge District.

Horncastle Union.—Frederick Hall, M.R.C.S. Eng., L.S.A., to the Wragby District.

Wirral Union.—George Hill, M.D. Edin., L.R.C.S. Edin., to the Eastham District.

TESTIMONIAL TO A BRIGHTON PRACTITIONER.—A massive silver salver, with an appropriate inscription, was presented last week to Mr. George Tatham on his retirement from practice, which extended over a period of thirty years. Mr. Arthur H. Cox, one of the borough justices, and late mayor, acted as treasurer.

CURIOUS COINCIDENCES.—At the "promotion" of the hospital *internes*, which took place in December last, two remarkable coincidences were observed. On December 14, 1831—therefore forty-four years ago—M. Jean Baptiste Barth (the present celebrated physician of that name) was named the first *interne* on the promotion, and on December 24, 1875, his son has received the same honour. On December 14, 1831, the seventh *interne* on the promotion was Auguste Nélaton (the late famous surgeon), and on December 24, 1875, his son Eugène Nélaton occupied the same position on the list.—*Union Méd.*, January 15.

LIVERPOOL MEDICAL CHARITIES.—On Monday last the annual meetings of three of the medical charities of Liverpool took place—viz., of the Royal Infirmary, the Southern Hospital, and the Eye and Ear Infirmary. Very satisfactory reports were presented in each instance. The receipts of the Royal Infirmary for last year were reported to have been considerably in excess of previous years, amounting to £18,788 2s. 8d. The expenditure had also been very great, amounting altogether, including that connected with the Lock Hospital and Lunatic Asylum, which are under the control of the Infirmary trustees, to £15,868 2s. 3d. At the Southern Hospital the receipts were £10,454, and the expenditure £7378 2s. 6d.

THE new Board of Examiners in Anatomy and Physiology for the diploma of Membership of the College of Surgeons met on Saturday last, when the following questions were submitted to the candidates, who were required to answer four of them, including one of the first two, viz.:—*Physiology:*

1. What is the action of the arteries in the circulation of the blood? What evidence can you offer of the influence of the nervous system on this action? 2. Describe the structure of the pancreas, and state the effects of the pancreatic juice on the chief constituents of the food. *Anatomy:* 1. Describe the articulation between the lower jaw and the skull, and name the parts in relation with the ligaments of the joint. 2. Name the muscles attached to the radius; give the precise points of their connexion with that bone, and state their action. 3. Describe the course and relations of the profunda femoris artery, and give the anastomoses of its branches. 4. Name the muscles and tendons of the sole of the foot in the order met with in dissection.

THE FRENCH MILITARY SURGEONS AND THE INTENDANTS.—The National Assembly has had a strange petition presented it by certain "*pères de famille*," who, intervening in the great dispute between the surgeons and the intendants, demand that the management of the hospitals shall remain in the hands of the latter. The argument they employ is at all events novel. "Everyone," the petition of these unknown fathers declares, "is aware that our military surgeons, with a few exceptions, have known and avowed tendencies to a materialism little disposed to sympathise with the efforts of the sisters and almoners representing the religious interests. Frequently, on the contrary, circumstances have occurred tending to obstruct rather than favour the religious liberty of the sick soldier, the mission of consolation, etc." These allegations are utterly untrue.—*Lyon Méd.*, January 16. [We believe one of the useful actions of the Assembly during the last hurried days of its existence was to pass an Act liberating the military surgeons from the thraldom of the Intendancy, alike galling to them, and mischievous to the interests of the sick and wounded.]

ST. ANDREWS GRADUATES' ASSOCIATION.—The following officers have been elected for the present year, viz.:—*President of Council:* Benjamin W. Richardson, M.D., M.A., F.R.S., F.R.C.P., 12, Hinde-street, London, W. *Honorary Treasurer:* J. H. Paul, M.D., M.R.C.P. Edin., F.R.C.P. Edin., F.R.C.S. Eng., The Terrace, Camberwell, London, S.E. *Honorary Secretary:* Leonard W. Sedgwick, M.D., 2, Gloucester-terrace, Hyde-park, London, W. *Members of Council:* W. Bloxam, M.D., 21, Mount-street, London, W.; W. Cholmeley, M.D., F.R.C.P., 63, Grosvenor-street, London, W.; T. B. Christie, M.D., F.R.C.P., F.R.C.P. Edin., Royal India Asylum, Ealing; J. Lockhart Clarke, M.D., F.R.C.P., F.R.S., 64, Harley-street, London, W.; W. F. Cleveland, M.D., 199, Maida-vale, London, W.; W. F. Coles, M.D., Croydon; George Cordwent, M.D., F.R.C.S. Eng., Taunton; Edwards Crisp, M.D., 29, Beaufort-street, Chelsea, S.W.; T. B. Crosby, M.D., F.R.C.S. Eng., 21, Gordon-square, London, W.C.; W. H. Day, M.D., M.R.C.P., 10, Manchester-square, London, W.; Henry Day, M.D., F.R.C.P., Stafford; T. O. Dudfield, M.D., 8, Upper Phillimore-place, Kensington, London, W.; S. Day Goss, M.D., F.R.G.S., 111, Kennington-park-road, London, S.E.; J. T. Griffith, M.D., F.R.C.S. Eng., Talfourd House, Camberwell, London, S.E.; J. Bower Harrison, M.D., M.R.C.P., F.R.C.S. Eng., Higher Broughton, Manchester; Samuel Hill, M.D., 22, Mecklenburgh-square, London, W.C.; C. Holman, M.D., Reigate; Wharton P. Hood, M.D., 65, Upper Berkeley-street, Portman-square, London, W.; J. Hughlings-Jackson, M.D., F.R.C.P., 3, Manchester-square, London, W.; S. Lawrence, M.D., Montrose; J. Murray Lindsay, M.D., Mickleover, Derby; J. A. Lush, M.D., M.R.C.P., M.P., Fisherton House, Salisbury; John D. Macdonald, M.D., F.R.S., Netley, Southampton; J. Macintyre, M.D., Odiham, Hampshire; James Menzies, M.A., 24, Carlton-hill, St. John's-wood, London, N.W.; Henry Moon, M.D., F.R.C.P., 9, Old Steyne, Brighton; Richard Norris, M.D., Birchfields, Birmingham; R. Budd Painter, M.D., F.R.C.S. Eng., 4, Beaufort-gardens, Brompton, London, S.W.; Rev. Chas. Rogers, LL.D., Grampian Lodge, Forest-hill, S.E.; C. Royston, M.D., 1, St. Stephen's-crescent, Westbourne-park, London, W.; Joseph Seaton, M.D., F.R.C.P. Edin., Halliford House, Sunbury; R. H. Semple, M.D., F.R.C.P., 8, Torrington-square, London, W.C.; J. Sparshall Willett, M.D., M.R.C.P., 7, Suffolk-place, Pall-mall, London, W.; E. F. Watkins, M.D., 61, Guilford-street, London, W.C.; W. Rhys Williams, M.D., Bethlem Hospital, London, S.E.; A. Wynn Williams, M.D., 1, Montague-square, London, W.; A. Wiltshire, M.D., M.R.C.P., 57, Wimpole-street, Cavendish-square, London, W.; W. Bathurst Woodman, M.D., M.R.C.P., 6, Christopher-street, Finsbury-square, London, E.C.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. T.—The proverb is that "they who would be young when they are old, must be old when they are young."

Mr. Campbell.—Cretinism was first discovered and noticed by Plater, about the middle of the seventeenth century. The late Dr. William Twining, of St. Bartholomew's, paid considerable attention to the subject, and wrote a book on it. Ask Mr. Chatto, the Librarian of the College of Surgeons.

E. R., St. Luke's.—Such things no longer exist. They are all engaged in healthy occupations. Write to the Medical Superintendent.

T. G., King's College.—The pass examination will take place on Friday, the 21st inst.

Medical Octogenarians.—The annual obituary of that useful compilation, the "Medical Directory," which has just been published, gives some rare illustrations of prolonged existence in members of our profession who have died during the past year. We have selected at random just one dozen, whose united ages amounted to 1075 years, giving an average of eighty-nine years and exactly seven months to each.

Mr. Spurway, Paignton.—We are much better acquainted with the facts of Mr. Spurway's case than he seems to think. Our desire in all cases is to be just and moderate, and we will not adopt a wrong view of a case, even though it happen to be the popular one. May we venture to point out to Mr. Spurway that it has been exactly by such intemperate letters as the one which we have received that he has done so much to damage himself and his fortunes at Whitehall. "Ignorance and misrepresentation of the rules of her Majesty's Service" are hardly decent terms to apply to any journal, but as regards our own we can afford to put them on one side. *Si corroborationem queris circumspice*—ask anybody you like.

A Subscriber, Highbury.—After two independent audits, it appears the total amount received for the 1875 Metropolitan Hospital Saturday Fund was £5473 19s. 8d., and the expenses were £577 less than in the previous year.

Zeno.—"On the point of the capacity of the negro to labour in a tropical climate," Mr. George Price states, in his book "Jamaica and the Colonial Office," 1866, "I am inclined to believe that continuous muscular exertion is impossible, even by black men, in Jamaica. Even during slavery time, the newly imported slaves, however well conditioned when landed, required a seasoning, and, notwithstanding the care bestowed on them, they always underwent a considerable diminution in numbers in a short time. The same happens still with captured Africans brought to Jamaica. The Chinese deteriorate in physical appearance and industry, as do the Coolies from India. Escaped negroes from the Southern States of America, after having passed some time in the Northern States or in Canada, acquire much vigour both mentally and physically, and on coming to my employment in some numbers in Jamaica, I have found them willing and able to perform an extraordinary amount of work and to earn very high wages by it, settled at the same price as was usually given to the negroes of the country. They would do, probably, three times as much work, and earn three times as much money, spending it, however, in more and better food than the negroes. But I have found these people, after each slight attack of fever, less able to eat, and therefore to work; and in the course of a few years I have seen them go into the field with the common field negroes and be satisfied with their earnings and their food." Mr. Price was for more than twenty years a resident manager of Jamaica property.

Russia.—A correspondent of our contemporary the *Times*, of Monday last, writing from Orenburg, Russia, observes—"There is one great drawback to happiness in the land of the Czar, and this is the high rate of mortality, particularly among children. By official statistics which I have before me, I find that out of 10,000 infants 3830 die before they have completed the first year, 975 the second, and 524 before the third. By another calculation, I see that out of 1000 children there will be but 655 left at the end of five years. Probably the extreme rigor of the climate causes such fearful mortality among the younger population; and undoubtedly the system of baby farming which is carried on by the State to a great extent contributes largely to swell that death-list which it was intended to diminish. The foundlings, who are admirably looked after by the officials in establishments of the kind to be met with in the various towns of Russia, are, after completing a few years in the institute, sent out to peasant women in the villages. The little ones are often very kindly treated, but it can never be expected that a woman will take as good care of another person's offspring as of her own."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you kindly make known to the members of the Association, through your columns, that, in consequence of the great addition to our ranks, in response to the appeal of Dr. Lush, M.P., our President, I am unable to forward the receipts by return of post, but will do so as soon afterwards as possible. I am, &c., J. WICKHAM BARNES, Hon. Sec.

COMMUNICATIONS have been received from—

Dr. L. Sedgwick, London; The Honorary Secretary of the Medical Benevolent Fund; Dr. J. Nicholls, Chelmsford; The Rev. S. Cheetham, London; The Honorary Secretary of the Quekett Microscopical Club; The Registrar of Apothecaries' Hall; Our Liverpool Correspondent; Our Paris Correspondent; Mr. Spurway, Paignton; Mr. Pick, London; Mr. Cox, Brighton; Dr. Smith, Reigate; The Registrar-General, Edinburgh; Mr. C. T. Williams, London; Mr. W. Douglas Hemming, London; Mr. W. E. Poole, London; Mr. Henry Morris, London; Mr. J. Knowsley Thornton, London; Dr. C. Handfield Jones, London; Mr. J. Netten Radcliffe, London; Mr. J. Chatto, London; Mr. C. Allen Fox, London; Mr. J. McCall, Dublin; The Secretary of the Society for the Relief of Widows of Medical Men.

BOOKS AND PAMPHLETS RECEIVED—

Reports of the Medical and Surgical Registrars of Middlesex Hospital for 1874—Black on Respiration, or Why do we Breathe?—Buck and Franklin's Report on Epidemic Diarrhœa at Leicester, 1875—Hammond on Pigmentary Deposits in the Brain resulting from Malarial Poisoning—Hammond on the Cause of Vice-President Wilson's Death—A Few Words about the Movement Cure, or Medical Gymnastics, by J. Bienemann, M.D.—Dobell's Annual Report of Diseases of the Chest, vol. i.—St. Bartholomew's Hospital Reports, vol. ii.—Exposé Théorique et Pratique des Maladies Vénériennes, par le Dr. De Laplagne—Sturges on Pneumonia.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Sheffield Daily Telegraph—Exeter and Plymouth Gazette—Hastings and St. Leonard's Chronicle.

APPOINTMENTS FOR THE WEEK.

January 22. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. P. Pullan, on his "Excavations in Asia Minor."

24. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Wm. Adams, "On a Case of Anchylosis of both Elbow-Joints, successfully treated by Subcutaneous Section of the Humerus of one and Forcible Extension of the other." Dr. Farquharson, "On Official Dosage, with some Remarks on Homœopathic Tinctures." Dr. Crisp, "On a Remarkable Case of Skin Disease" (living specimen).

25. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Anniversary Meeting.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Althaus, "On the Prevalence and Fatality of Nervous Diseases."

26. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Pye-Smith, "Reports of Two Cases of Addison's Disease."

27. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

28. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Bell Taylor, "On a Method of operating for Cataract by which the Pupil is preserved," and "On a Method of treating Obstinate Cases of Symblepharon by replacing the Ocular Conjunctiva by Skin." Mr. C. Heath, "On a Case of Gunshot Wound of the Arm dividing the Brachial Artery and the Median Nerve." Dr. Broadbent, "Case of Embolism of the Right Posterior Cerebral Artery, with Yellow Softening of the Occipital Lobe of the Hemisphere—Death from Endocarditis." Mr. Pugin Thornton, "A Case of Œdema of the Larynx."

Quekett Microscopical Club, 8 p.m. Mr. A. Hammond, "On a Comparison between the Metamorphoses of the Crane-Fly and the Blow-Fly."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Huxley, "On the Border Territory between Animal and Vegetable Kingdoms."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 15, 1876.

BIRTHS.

Births of Boys, 1238; Girls, 1193; Total, 2431.
Average of 10 corresponding years 1866-75, 2325·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	814	776	1590
Average of the ten years 1866-75	809·1	822·8	1631·9
Average corrected to increased population ...	...	...	1746
Deaths of people aged 80 and upwards ...	...	...	67

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	7	8	1	19	...	3	1	3
North... ...	751729	...	7	16	4	26	1	...	...	1
Central ...	334369	...	5	3	1	9	...	2	1	...
East	639111	...	6	8	...	18	1	1	...	5
South... ...	967692	...	15	25	3	28	1	4	1	5
Total	3254260	...	40	60	9	100	3	10	3	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·143 in.
Mean temperature	39·7°
Highest point of thermometer	55·0°
Lowest point of thermometer	19·6°
Mean dew-point temperature	25·6°
General direction of wind	N. & N.E.
Whole amount of rain in the week...	0·16 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 15, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Jan. 15.	Deaths Registered during the week ending Jan. 15	Temperature of Air (Fahr.): Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.): Weekly Mean of Mean Daily Values.	Rain Fall: In Inches.	In Centimetres.
London	3489428	46·3	2431	1590	35·0	19·6	30·7	−0·73	0·16	0·41
Brighton	100632	42·7	62	39	35·0	22·6	29·9	−1·17	0·21	0·53
Portsmouth ...	124867	27·8	79	55	...	...	...	...	...	...
Norwich	83430	11·2	49	41	36·0	24·8	31·3	−0·39	0·10	0·25
Plymouth	72230	51·8	32	33	...	...	...	...	...	...
Bristol	199539	44·8	146	103	36·2	19·0	30·8	−0·67	0·22	0·56
Wolverhampton ...	72549	21·4	55	35	35·5	20·9	29·9	−1·17	0·16	0·41
Birmingham ...	371839	44·3	305	178	36·2	22·8	31·1	−0·50	0·16	0·41
Leicester	113581	35·5	98	44	35·8	16·5	30·1	−1·06	0·19	0·48
Nottingham ...	93627	46·9	64	51	35·8	17·8	29·9	−1·17	0·26	0·66
Liverpool	521544	100·1	411	349	40·3	22·3	32·1	0·06	0·13	0·33
Manchester ...	357917	83·4	293	229	39·8	23·0	33·2	0·67	0·21	0·53
Salford	138425	26·8	124	106	37·6	19·9	30·5	−0·84	0·16	0·41
Oldham	88609	19·0	73	52	...	...	...	...	...	...
Bradford	173723	24·1	140	96	37·3	23·0	32·3	0·17	0·36	0·91
Leeds	291580	13·5	232	136	38·0	22·0	33·5	0·84	0·40	1·02
Sheffield	274914	14·0	224	136	38·0	19·8	31·5	−0·28	...	...
Hull	136933	37·7	117	68	37·0	24·0	32·1	0·06	0·14	0·36
Sunderland ...	108343	32·8	84	44	41·0	25·0	33·6	0·90	0·28	0·71
Newcastle-on-Tyne	139929	26·1	132	73	40·0	22·0	31·7	−0·17	0·40	1·02
Edinburgh	215146	51·3	147	128	...	...	...	...	...	...
Glasgow	545144	90·4	392	281	41·1	20·0	32·6	0·34	0·16	0·41
Dublin	314666	31·3	165	197	44·4	23·0	34·0	1·11	0·04	0·10
Total of 23 Towns in United Kingdm	8028595	37·7	5855	4067	44·4	16·5	31·6	−0·22	0·21	0·53

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·14 in. The lowest was 29·92 in. at the beginning of the week, and on Wednesday evening, and the highest 30·46 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture II.

AGE IN ITS MEDICO-LEGAL RELATIONS.

In discussing this topic, I propose to notice—first, *those periods of life* which *the law has fixed* for certain purposes; and, secondly, *the means* we possess *for the determination of the age* of persons *alive* or *dead*, where no record of this is otherwise to be had.

I.—And, first, *of legal questions respecting age.* (1.) The question of age may have to be settled in cases of *birth*, *criminal abortion*, and *infanticide*. (2.) It may also arise indirectly in charges of *rape*, *early marriages*, and the *affiliation* or *maternity of infants*. (3.) The age of the parties may have to be settled in a few instances fixed by statute, as in the Acts for the regulation of factories and workshops. (4.) It may also form an element in regard to the *identification*, at any age, of a person either *alive* or *dead*. Lastly, in law, certain periods of life are fixed on in the determination of *certain rights or immunities*, as also in fixing *the degree of culpability* attaching to crimes against the person, or done by a particular agent.

The distinction which holds in *medicine* between the *ovum or embryo*, and that betwixt an *abortion* and a *premature birth* does not hold *in law*. The *legal statute* uses the term *miscarriage of a child*, whatever be the age of the fœtus or the period of its expulsion from the uterus.

The distinction, which till lately was held *in law*, between the criminality of causing the premature expulsion of an infant, *previous to* or *subsequently to* the period of the mother's *quickening*, is now abolished. By the law, as it stands at present, "capital punishment, which formerly depended on whether the female had *quickened* or *not*, is abolished" in all cases, and it is left to the discretion of the court to inflict transportation or imprisonment.—("Taylor's Manual," pages 516-17.)

The question of *quickening or otherwise* may come up in law, however, in another connexion. Thus, *after a woman has quickened*, if condemned to death, the sentence is deferred till after delivery, though not otherwise, unless it may be occasionally at the discretion of the judge.

"If, at the time of *delivery*, the fœtus appear not to have lived to the full age of seven months in the uterus, the mother, it is said, ought not to be convicted of concealment of the birth of a child, under the statute."—(Chitty.)

"*Under seven years* an infant is considered, in law, incapable of committing any crime. As regards *evidence*, an infant *under seven* may be a witness, if he be sensible of the obligation of an oath, particularly if the child be a female on whom a rape has been attempted or perpetrated."—(*Id.*)

"The recent Acts for the regulation of factories and other works, as a rule, prohibit the employment of children under *eight years*. From eight to thirteen years, boys or girls cannot be employed for more than six hours and a half a day. Betwixt the ages of thirteen and eighteen years, no one can be allowed to work more than sixty hours a week, or ten hours and a half on each of the five first days, and seven hours and a half on Saturday. This last restriction applies also to females of any age."—(Redgrove's "Administration of the Factory Acts," *pass.*)

"The carnal knowledge of a female infant *under* ten years of age," till recently "a capital offence," is now considered in England as a crime punishable by transportation for life; and this although the hymen be not broken, and although emission be negatived." Even the solicitation of the infant herself affords no palliation of the crime.—(Taylor.)

"Carnal knowledge of a female *between ten and twelve*, even with her consent, is a misdemeanour punishable with imprisonment and hard labour." "*Above the age of twelve years*, the consent of the female," in this case, "does away with any imputation of legal offence," as "females who have passed this age are considered to be capable of offering some resistance to the perpetration of the crime."—(*Ibid.*)

"*Puberty in the female* is in law fixed at twelve—at least two years too early."

"*Under the age of fourteen* both sexes are presumed not to have been guilty of any crime; but proof of sufficient knowledge between good and evil makes them liable for offences; so that, unless great weakness of intellect appear, they are liable to criminal punishment for crimes of commission after the age of seven, but in no case for a rape or sexual crime under fourteen."

Males, *after fourteen*, are allowed to *marry;* but not without the consent of their parents or guardians under twenty-one.

"*Eighteen is the earliest period for service in the army*," and experience proves that it is injurious to the State to enlist recruits under twenty-three.—(Chitty.)

"By the 1st Victoria, c. 26, no will made by any person under the age of twenty-one years shall be valid. In connexion with this subject," however, "it is proper to state that *the day of a person's birth* is," in law, "included in the computation of his age; and as there is in law no *fraction of a day*, a will may be made at any time on *the day before* that which is usually considered the twenty-first anniversary of birth, and yet be held valid."—(Taylor, *Medical Gazette*, vol. xxxviii., page 823.) The same thing holds good in other cases of majority, as has been proved in formal legal decisions.—(*Id.*)

Let us notice, in the second place,

II.—*The data* which we possess *for the determination of the age* of the party at the different periods of life. Some of these, formerly relied on, are of an artificial or arbitrary character; others, and such as are now in use, are based on physiological changes following each other in the natural development of the human system. Thus, the ancients believed that very important changes took place in the animal economy at the end of the seventh year and its multiples, and although the theories advanced by them on this subject are now known to be untenable and too vague and uncertain for the purposes of the medical jurist, an examination of their doctrine will account for many of the present divisions of time, as well in fact as in law.—(Chitty, "Med. Jur.," vol. i., page 432.) It will be observed, for instance, that the fœtus which has reached the seventh month may survive its birth; dentition, again, commences at the seventh month after birth; and the *second dentition* at the end of the *seventh year*. Twice seven, or fourteen, is the age of puberty; three times seven, adult age; from five times seven to seven times seven, the period of maturity; ten times seven, the supposed natural term of life.—(Chitty.)

These periods, though of an arbitrary and artificial character, are nevertheless found to correspond to *the physiological division of human life* into the six principal periods or epochs—(1) *infancy;* (2) *childhood;* (3) *puerition*, boyhood or girlhood; (4) *adolescence;* (5) *adult age;* and (6) *declining*, or *old age.*—(Chitty, page 433.) It will be seen, however, that they fail to take in the period of *fœtal life*—one of considerable importance to the medical jurist,—while they are too lax and indefinite for his purpose, which will necessitate a different arrangement of the periods of life during life and after death.

That determination of the periods of fœtal life, up to its termination at birth, arises in connexion with certain inquiries and questions bearing on the live or still-birth of the infant both in civil and criminal cases, and particularly in connexion with charges of criminal abortion and infanticide, and thus forms an important element in legal medicine. Such of those points as fall to be determined *in the living fœtus, or infant*, will come before us afterwards under *birth* and maturity. Those which will be best discussed here will embrace those points the determination of which is largely deducible from the examination of the *dead* fœtus or infant.

1. *At and before birth* the settlement of the age is made to rest mainly upon (1) *the weight;* (2) *the measurements of the entire body or its parts;* and (3) *the progressive ossification of the bones.* Thus, the *average weight of the infant*, according to the latest calculations, is,—

At 5 months	5 oz. to 7 oz.
„ 6 „	1 lb. to 2 lbs. 2 oz.
„ 7 „	2 lbs. to 4 lbs. 5 oz.
„ 8 „	3½ lbs. to 5 lbs. 7 oz.
„ 9 „	4 lbs. 5 oz. to 7 lbs.

The average length of the infant, again, is,—

At 5 months	6 in. to 10½ inches.
„ 6 „	8 „ 13½ „
„ 7 „	11 „ 16 „
„ 8 „	14 „ 18 „
„ 9 „	16 „ 20 „

Again, *the middle of its length* is found to be,—

At the 6th month, at the lower end of the sternum.
„ 7th „ a little below the end of the sternum.
„ 8th „ nearer the umbilicus than the sternum.
„ 9th „ at the umbilicus.

Once more, *points of ossification* are first observable,—

At the 5th month, in the pubis and os calcis.
„ 6th „ in the four divisions of the sternum.
„ 7th „ in the astragalus.
„ 8th „ in the last sacral vertebra.
„ 9th „ in the lower end of the femur.

In addition to these sources of information, there are some others which will occasionally assist us in ascertaining *approximately* the age of the fœtus. Thus, (*a*) *comparative measurements of the head*, at the different periods, though not much attended to here, are relied on by our German brethren. Again, (*b*) the existence of *the pupillary membrane*, or *its disappearance*, points to the infant being, in the one case *under*, and in the other *beyond* its seventh month. Further, (*c*) the *state of the nails*, (*d*) the *sebaceous coating on the skin*, (*e*) the *down on the surface*, and (*f*) the *advance of the meconium*, *the liver*, *the kidneys*, and *the testes*, will afford data, the valuation and appreciation of which you will best perceive by a reference to the details in your manuals.

2. *The changes* taking place in the *living infant immediately after birth*, at the full time, and up to *the forty-fifth day of extra-uterine life*, enable us to fix its age at this period with sufficient accuracy for most practical purposes. These changes are (1) the closure of the fœtal vessels following the establishment of respiration; (2) the discharge of the meconium; (3) the shrivelling and fall of the umbilical cord; and (4) the desquamation of the cuticle. The details connected with these changes have so close a connexion with the subject of live birth that it will be necessary to reserve their consideration till we come to treat of *infanticide*.

There are a few *minor points* deserving to be attended to, bearing on *the new-born mature infant*, which may be noticed here, where (as so often happens in charges of infanticide) the child has perished or been destroyed immediately after birth. Thus it may be well to notice whether—(*a*) the child has or has not been washed, and the sebaceous coating or the blood on its surface has been got rid of, or otherwise. Again, (*b*) the cord may or may not have been tied, or (*c*) the child may or may not have been dressed partially or entirely—operations usually requiring the assistance of a third party. Again, (*d*) air is not believed to enter the stomach of the infant for some minutes after its *complete respiration*, while the finding of saliva in this viscus has had considerable stress laid upon it of late in Germany *in proof of the same circumstance* having happened. (*e*) As matters of common observation, again, it is known that the infant does not empty its bladder or intestines for a short time after its birth, though it should be remembered that the bladder has been found empty in stillborn children; and that the meconium is occasionally passed in utero or during the mother's delivery, at least partially, if not entirely. Lastly, *the presence of milk in the breasts of the infant*, though but an occasional occurrence, does not last beyond the first week usually, though it has been known to persist to the third week. (Paul Lorain, "Dict. de Méd.," vol. i., pages 422-3.)

(3.) Beyond the forty-fifth day after mature birth, the best means which the medical jurist possesses for deciding as to the time of life, betwixt *early infancy* and the epoch of *manhood* or *womanhood*, are deducible from the state of the *osseous system in general* and the progress of the *dentition*; the latter available in the *living*, the former, of course, only in the *dead body*.

The growth of the skeleton to maturity, and the appearances and changes of the teeth, are less subject to variation than the other parts of the system, and may be taken in connexion, as laid down by Beclard and several of our best medico-legal authors.

Thus we have the following approximations more or less definitely laid down:—

At four months, cornua of the os hyoides ossified.

At five months, corniculæ of the os hyoides ossified.

At six months, point of ossification at the anterior arch of the atlas; alæ majores united to the sphenoid bone.

From the seventh to the eighth months, the eruption of the middle lower, then of the middle superior incisor teeth.

From the ninth to the tenth months, eruption of the lateral incisors.

At one year, points of ossification of the epiphyses at the lower ends of the humerus and radius, and at the heads of the humerus, femur, and tibia; posterior arches united to the bodies of the vertebræ, and the separate portions of the temporal to each other. The four anterior molar teeth appearing in succession; sometimes the canines.

At two years, points of ossification at the lower ends of the radius, tibia, and fibula; epiphyses of the metatarsal and metacarpal bones ossified.

At two years and a half, patella, lesser tuberosity of the humerus, and the four smaller metacarpal bones ossified; eruption of the canine and four posterior molar teeth.

At three years, union of odontoid process with the body of the axis; ossification of the cuboid bone and the larger trochanter femoris.

At four years, ossification of the trapezoid and second and third cuneiform tarsal bones; bony union of the styloid process with the temporal bone.

At five years, ossification of the semilunar and scaphoid carpal bones, and the epiphyses of the bones of the fingers and the upper end of the fibula; bony union of the rami and the body of the vertebra dentata.

At six years, bony union betwixt the descending rami of the pubes and the ascending rami of the ischium; ossification of the os pisiforme and of the proximal epiphyses of the four smaller toes.

At the seventh year, ossification of the trochlea of the humerus. Between the sixth and seventh year shedding of the milk teeth, and appearance of the first two permanent molars.

From the seventh to the ninth years, ossification of the olecranon and scaphoid bone; union of the two bony points at the head of the humerus; appearance of the eight permanent incisor teeth.

At nine years, bony union of the three portions of the ilium at the bottom of the acetabulum.

At ten years, eruption of the anterior permanent bicuspidati.

At twelve years, bony point at the inner border of the trochlea of the humerus; ossification of the os pisiforme; eruption of the posterior bicuspidati, canine, and second large molar teeth.

At thirteen or fourteen years, ossification of the neck and of the lesser trochanter of the femur.

At fifteen years, bony point at the inferior angle of the scapula; consolidation of the four last sacral vertebræ; bony union of the corneoid with the body of the scapula.

(4.) The *period of puberty* in both sexes is, of course, indicated by the evolution and completion of the sexual characters and organs, viz.,—besides the expansion of the genitals *in the male*, the enlargement of the chest and of the breadth of the shoulders, the increased sonorousness and depth of the voice, the growth of hairs on different parts of the trunk, and the beard; and, *in the female*, the expansion of the pelvis, and the growth of hair at the pubes and axilla.

(5.) After puberty:—

From fifteen to twenty years, bony point of the sternal end of the clavicle; ossification of the coccyx; eruption of the dentes sapientiæ; bony union of the trochanters and head of the femur, the lower end of the femur, and the two ends of the humerus, with the shafts of these bones.

From eighteen to twenty-three years, union of the body of the sphenoid to the basilar process of the occipital bone; bony union of the three pieces of the tibia, of the first and middle portions of the sternum, of the osseous points at the extremities of the transverse and spinous processes of the vertebræ, and of the epiphyses of the ribs.

From twenty-five to thirty years, bony union of the first with the other sacral vertebræ.

From forty to fifty years, consolidation of the ensiform cartilage with the sternum.

Here I need not do more than allude briefly to a few vague indications of *mature* and *advanced age* which have been proposed—such as the condition of the teeth, the depth of the lower jaw, the inflexibility of the spinal column, the colour or quantity of the hair, and the state of the genitals.

Such, then, are the various sources available for the medical jurist for the determination of the age, where the question of age may have to be determined. Of these, the indications derivable from the teeth, and the sexual organs, and peculiarities, it will have been noticed, are accessible in the living. In judging from any or all of them, it is essential to observe that they ought to be regarded as affording only *approxi-*

mations to the real age; and that in availing ourselves of *the averages* they would authorise us to lay down, the *extreme ratios* which are liable to be encountered must not be lost sight of. It is known, in fact, that the periods thus deducible from the least fluctuating of these data, though *in general* not likely to mislead very far, are not so constant in every instance as might be desired.

To take, for example, *the eruption of the teeth, alone available in the living*, it is well known that this natural process is liable to considerable variations, both as regards *the time of the appearance* of particular teeth and as to *the order of their eruption*. Thus, in practice, I have met with two children with incisor teeth fully formed at birth (the first incisor making its appearance in a girl of sixteen months), and the entire absence of teeth in a boy of two years, affected, however, with chronic hydrocephalus. Lanzoni, again, "has recorded a case where none of the teeth appeared till the seventh year." —(Cummin.)

Again, as regards the ossification of the skeleton, some differences of opinion exist amongst physiological and medico-legal authors as to the precise dates of these several changes, though these differences are neither many nor important. The value of any or all of our data for this end, however, I may remark in conclusion, becomes less as the age of the parties has advanced beyond the conclusion of the first dentition, while on the completion of puberty and the advance of years their vagueness and uncertainty have reached the maximum.

Erratum.—Lecture I., page 1, in the eleventh line of the first column, *for* "distributed," *read* "disinterred."

ORIGINAL COMMUNICATIONS.

IS LEPROSY CONTAGIOUS?

By GAVIN MILROY, M.D., F.R.C.P.

No. IV.

In my first and second papers (*Medical Times and Gazette* for June 19 and July 17) I examined the arguments recently adduced by Dr. Hansen, of Bergen, Norway, and Dr. V. Carter, of Bombay, on this question, and found them to be, in my judgment, extremely unsatisfactory as counter-evidence in opposition to the conclusion adopted by the College of Physicians, and which stands thus in its Report, page lxix.:—

"The all but unanimous conviction of the most experienced observers in different parts of the world is quite opposed to the belief that leprosy is contagious or communicable by proximity or contact with the diseased. The evidence derived from the experience of the attendants in leper asylums is especially conclusive upon this point. . . . That leprosy is rarely, if ever, transmissible by sexual intercourse, when one of the parties has no tendency whatever to the disease, is the opinion of the great majority of the respondents who have had the largest opportunities of observation."

Being strongly impressed with the belief that there is a marked analogy or natural affinity, in not a few aspects, between leprous and scrofulous disease, it seemed to me not irrelevant to investigate the relationship, so to speak, between these two forms of cachexia, with special regard to the question we are now considering; and for that purpose I examined (in my last paper, November 27) the views put forth some time ago by M. Villemin, of Paris, and some other pathologists, respecting the communicability or infectivity of phthisis, and the doctrines founded thereon as to its propagation by this agency in different regions of the world. Readers will judge for themselves of the validity of the several data and dicta propounded by M. Villemin, and his followers, from the details that were then given.

Reverting now to the original subject, I wish to invite attention to some new evidence that has only lately come to my knowledge, and which certainly seems to corroborate the above-cited conclusion of the College of Physicians.

1. The first is contained in the *Australian Medical Journal* for March, 1874. The information is the more interesting from its bearing on the alleged importation of the disease into Honolulu by Chinese immigrants, to which Dr. V. Carter attached so much importance as a proof of its propagation by contagion among a population previously exempt from all trace of it. It may be mentioned that in the Report of the College, page 81, Dr. M'Crae, Chief Medical Officer, Melbourne, records that "no instance of apparent contagion (among the Chinese lepers) has been met with in this colony," and that "persons affected with leprosy in this colony, who are exclusively Chinese, are allowed to communicate freely with the rest of the community."

The extract from the recent number of the *Australian Journal* stands thus—

"At a meeting of the Central Board of Health (of Melbourne), on February 21, a report on the subject of leprosy was presented. It appears that the total number of lepers in the colony is 15—viz., 2 at Ballarat, 3 at the Woolsheds, near Buckworth; 1 at Buckland; 1 at Wood's Point; 1 at Winmore; 1 at Sandhurst; 2 at Melbourne; 1 at Castlemaine; and 1 whose residence is unknown.

"A similar return in January, 1866, shows that there were then in the colony thirty-one persons suffering from the disease, so that leprosy, so far from increasing, has quite decreased. The decrease in the number is owing mainly, if not altogether, to mortality among the sufferers, no cures having been effected. On the other hand, no instance of the spread of the disease by contagion has ever occurred in the colony, although in one town (Castlemaine) lepers have for the last ten years been admitted into the public hospital. There is, in fact, abundant evidence to show that there is no danger whatever to be apprehended from coming in contact with lepers, so that there is no longer any excuse for the existence of that ignorant prejudice which has condemned nearly all the unfortunate sufferers from the disease in this colony to the actual isolation and inhuman neglect which have been their lot.

"When the previous return was made, the Chief Medical Officer strongly urged the placing of these poor outcasts in the hospitals or benevolent asylums. Except in the case of the Castlemaine Hospital, however, an ignorant fear of contagion has, up to this time, prevented this course being taken; and the Chief Medical Officer having, in a recent communication to the Chief Secretary, again urged the adoption of this course, the Board resolved to communicate with the authorities of the several institutions referred to, pointing out the proved non-contagiousness of the disease, and the claim which the few unfortunate lepers still remaining in the colony have upon its charitable institutions."

2. From Australia we cross the Pacific and Indian Oceans to Ceylon for our next example. A despatch of Governor Gregory from Colombo, December 4, 1874, to the Secretary of State for the Colonies, contains the recorded testimony of the present two medical officers of the leper asylum of the island, that no instance of the spread of the disease from the patients there had ever occurred in their experience. This result entirely accords with that of the observation of their predecessors ten years before, given in the Report of the College of Physicians at page 94. So convinced is Dr. Anthonisz, one of the present officers, of the absence of any risk of the disease being communicated by mere casual contact or intercourse with the sick, that he has strongly recommended to the Government that a general dispensary be established in the asylum for the treatment of all cases of cutaneous diseases (which are extremely common among the natives), as well as of incipient and undeveloped cases of leprosy. The fact, too, that at Colombo, as at Trinidad, etc., the inmates of the asylum have perfect liberty to leave the establishment altogether when they desire to do so, shows that the dread of conveying the malady to their family and acquaintances is practically ignored by the community; and the following extract from the medical officers' last report is still more significant:—"The primary object is the reception of pauper lepers; but by the return it will appear that other cases of sickness are admitted into the asylum. There are a few chronic cases from the Government Civil Hospitals of Colombo, which it is considered may be benefited by the salubrious air, chronic ulcers and rheumatic affections being the principal of these. It is thus used as a sanitarium."

3. Passing over to the mainland of India, we shall next consider the testimony derived from the experience in recent years of the Madras Asylum. The evidence transmitted, now eleven years ago, by Mr. Shaw, then Principal Medical Inspector-General of the Presidency, in reply to the interrogatories of the College, was among the most valuable communications that were received. There are three leper asylums in the Presidency—viz., one at Madras, one at Cochin, and one at Bangalore. "As a rule, lepers are not admitted into the general or civil hospitals; but a leper affected with any inter-current disease would not be denied admittance." The

conclusion upon the question as to the contagiousness of the disease was decidedly in the negative (*vide* page 104 of the Report).

Before citing the important evidence of Dr. Van Someren's lengthened experience at the Madras Asylum (established in 1816), of which he had been medical officer for more than fifteen years, I would remark that the subject of leprosy has not been omitted in the very interesting and instructive "Letters from Madras," which have graced the columns of the *Medical Times and Gazette* during the last two years. In the latest of these communications the talented writer (July 24, 1875) remarks:—"I find that nobody here believes in contagion *simpliciter*, but there are some who think it may be contracted by sexual intercourse, or by a child suckled by a wet-nurse." The testimony of Dr. Dougall, whose name is so well known in connexion with the treatment of leprosy with Gurjun oil, alludes to the question of the communicability of the disease by sexual intercourse, in a letter which I lately received from him, in these words:—

"I have met with several married lepers who lived with their wives for years after the disease had manifested itself, and I have never known an instance of the disease being communicated to the wife. In my opinion, the disease is not transmissible by sexual intercourse. Two years ago I thought otherwise, but an increased experience has led me to believe that leprosy is not contagious or communicable by proximity or contact with the diseased."

The following extracts are from two very instructive communications of Dr. Van Someren in the *Medical Times and Gazette* for April 4 and 18, 1874, on the subject of leprosy:—

(*a*) "*Its Contagiousness.*—I am surprised that this should still be a moot point. All the records and experience of the Madras Leper Hospital run counter to it. I have never had the least proof of its communication in this way from one leper to another; and in my inquiries into the history of the disease, those affected with it have been singularly reticent regarding its origin by contact, if they believed they thus contracted the disorder. Then, again, if leprosy be rather a diathesis than a disease, its origin by contagion must of necessity be discarded."

(*b*) "*Its Communicability by Sexual Congress.*—On this point I feel doubtful. In my hospital there have been three cases in which husband and wife were affected, and either the one or the other became so after cohabitation, though well before. But there are so many instances of cohabitation of husbands and wives with leprous wives or husbands not being followed by leprosy, that I require more data before coming to a conclusion in this matter."

(*c*) "*Can Inoculation of a Leper's Blood, or of Matter from a Leprous Ulcer, produce Leprosy?*—All the experience of this Leper Hospital negatives the suggestion. In no instance has a single attendant accustomed to wash and dress the lepers' sores contracted the malady. I punctured my left index finger when amputating a leper's leg more than sixteen years ago, but have betrayed no symptom of the diathesis."

The usual number of inmates in the Madras Asylum for a good many years past has considerably exceeded 100.

"In concluding this narrative, the writer is constrained to express the hope that this lazaretto may yet expand and develope into an extensive hospital for skin diseases generally, and form the sole charge of the medical officer appointed to it."

"Latterly, leprosy has been described rather as a *diathesis* than a disease, and the writer's experience leads him to adopt this view. If regard be had to what is known of its causation, its hereditariness, the variety of its phenomena, its essentially chronic character, the amenability of some of its manifestations to treatment, and the impossibility of eradicating the specific taint from the system, it is difficult to maintain any other opinion about its pathology."

4. We pass on to the Bombay and Bengal Presidencies.

Mr. Thom, head of the medical department of the former, in a late official communication to the Government, appears to adopt, without hesitation, the conclusion that leprosy is not contagious, either by ordinary or by sexual intercourse, as may be gathered from the extract given in the recent Sanitary Blue-book of the India Office, 1875.(a) In the same document we read the following instructive statement from the north-west region of Bengal. The Civil Surgeon of Umballa writes:—"It is often argued that natives are strongly convinced of its (leprosy) being catching; but it is, I believe, on quite another ground that the father or mother is banished from his or her family, and that the social hookah is stopped, and the poor sufferer banished from society. It is rather from a religious point of view than from the idea of contagion that he is banished. There is in leprosy a sort of moral uncleanliness, a possession of an evil spirit—in fine, an idea of punishment for sin—associated in the native's mind with the loathsome appearance of a confirmed leper, just as we read of in the Bible. As far as my observation goes, facts militate against the origin of leprosy by contagion."

5. The experience of the disease in Syria has led Dr. John Wortabet, of Beyrout, to a like conclusion.

"I have put the question to many lepers, whether there was any reason to believe that they had contracted the disease by contagion of any kind. They were all positive in denying it. One of them expressed himself in this way:—'I saw but one leper in my life, and I never came near him.' . . . I know instances of lepers' wives living with their husbands a number of years, who never gave it to them, and *vice versâ*. I saw a leper Jew in Damascus, who lived four years with his first wife. After the disease had fully declared itself she obtained a divorce and left him. He then took another wife, whom I saw. She had been living with him about four years also, and was *quite* free from the disease. And yet, considering the nature and external phenomena of leprosy, and the apparently universal opinion of ancient medical writers, it is somewhat difficult to pronounce positively that it is wholly, and under all circumstances, non-contagious."(b)

6. I had hoped to have added some fresh testimony upon the subject we are considering, from some of the medical officers of leper asylums in the British West India colonies; but their expected communications have not yet come to hand, and I shall therefore insert here what appears to me an extremely interesting extract from the philosophical work of Dr. Pruner(c), who had seen the disease in Egypt, Arabia, and Abyssinia, as well as in Palestine and in Cyprus, Crete, etc. The expression of his opinion, founded on extensive experience in various countries in the East, is rendered the more interesting from the fact that his work was published before the classical treatise of Boeck and Daniellsen.

"All that has been advanced respecting the contagiousness of leprosy is unsatisfactory to me. We have ourselves placed, on different occasions, leprous patients among other sick persons for months at a time, and have never seen the disease spread. If it were contagious, the malady ought to spread more among the lower classes than in reality it does, considering the carelessness with which Orientals leave every door open for intercourse of any kind with lepers. The assumption that the disease can be communicated by sexual intercourse also seems to me groundless; for the French did not get it in this way in Egypt any more than the Crusaders did. Besides, it is rare for more than one of a couple to suffer from the disease. Although we met with a single case in Cyprus where both man and wife were affected, this might be explained by them both having been exposed to the same influences. The spread of leprosy to Rome, and afterwards to the middle of Europe, by the Crusaders, no more proves contagion than does the spread of cholera from its cradle in the East all over the world. If the Orientals, and especially the Turks, keep the lepers away from their houses, or confine them to certain quarters, this might be more from the disgust which they inspire than from the idea of the contagiousness of the disease, or from the view of checking its ravages. For we observed in the leper-quarters of Cyprus, Jerusalem, and of Damascus numerous victims of syphilis, who had been banished there in consequence of their disgusting appearance. Moreover, in Egypt, where the few lepers are allowed to go about, their number does not appear to increase.

"From all these considerations, which, however, are chiefly of a negative nature, it follows that the contagiousness of leprosy, which used to be estimated at a *maximum*, must now be reduced to a *minimum*."—(Pages 172-3.)

THE NEW BOARD OF EXAMINERS.—The vacancy in the new Board of Examiners in Anatomy and Physiology at the Royal College of Surgeons, caused by the lamented death of Mr. G. G. Gascoyen, will not be filled up until March next.

(a) "Report of Sanitary Measures in India in 1873-74, together with Miscellaneous Information up to June, 1875."

(b) "Memoir on Leprosy" in *Medico-Chirurgical Review* for July, 1873.

(c) "Die Krankheiten des Orients," von F. Pruner. Erlangen. 1847.

ON DIET.

By W. J. H. LUSH, M.R.C.S., L.R.C.P.,
Associate of King's College, London, formerly Resident Medical Officer at St. George's (Hanover-square) Dispensary.

THERE are few things of more importance, both in health and disease, than diet, and yet I believe there is nothing so much neglected—most certainly in health, when no professional advice is sought for; and very often in disease, when advice is given. In the former case, people eat and drink whatever tempts their appetite at the moment, forgetting or ignoring the consequences; and in the latter, very frequently too much importance is attached to the value of drugs, and too little to the kind and quantity of the food which should be given.

How often is a medical man—especially one whose practice is mostly associated with the diseases of children—brought in contact with illness, aye, and that affecting life itself, which is wholly caused by malnutrition. How often, when an infant a few weeks old is brought to him, evidently seriously ill, does he find on inquiry that it has been fed on rusks, and cake, and other indigestible substances, or, as the over-anxious mother forcibly puts it, "on anything we take ourselves," entirely forgetting the early age of the infant, and also its power of digesting; and how, when the child is fed on nothing but the food which nature has provided for it, or, if that is found to be insufficient, on a well-regulated diet, that, instead of presenting a weak and shrivelled appearance, it becomes strong and healthy, and this simply from the change to a proper from an improper diet.

As a rule, a healthy man, undergoing a fair proportion of mental and bodily exertion, requires three full meals a day, and these should be taken at fixed and regular intervals. Likewise, in disease great attention should be paid to the time at which nourishment is given; and, as a general rule, I believe it better to give it frequently in small quantities. In all cases when the respiratory or circulatory organs are impeded, the quantity and quality of the food taken is of the greatest importance. Whatever it be, it should tend as much as possible to keep the body at a uniform temperature, and to prevent the usual signs of indigestion which in health often follow a full meal or a long abstinence from food.

In some diseases a dislike is taken to a particular kind of food. In phthisis, for example, the patient shows a great distaste for all forms of fat; yet as emaciation always attends a case of phthisis to a greater or less extent, so the point indicated in the treatment is to give that form of diet and those drugs which will help to counterbalance the waste of tissue which the disease is causing. For this reason we give cod-liver oil, the most valuable remedy we have in the treatment of consumption, as it not only helps to produce fat, but often causes the patient to take other forms of fatty material. Directly, however, it causes nausea, it is far better to discontinue its use; for, whatever its value may be so long as it is properly digested, it certainly does more harm than good when such is not the case. In my opinion, invalids generally like what is best for them. They often ask their doctor what they may and what they may not take, and, as a rule, unless there is anything specially pointing against it, I recommend them to consult their own appetite. Certainly there are some patients who, even after asking for and receiving advice, will eat what they should not, and *vice versâ;* but a special craving for any food or drink by an invalid should, I think, be followed to the greatest extent, for I am sure that a food relished, be it every so small in quantity, does far more good than twice the amount which is forced on the patient against his inclination. Thus in no case should I think of ordering brandy if I found whisky was preferred; or a chicken to a mutton-chop. In all cases, I say, follow a patient's appetite to the greatest extent, even if by so doing you may run counter to the usually received doctrines of pathology and physiology.

A most valuable agent—whether it be classed as a drug or as an article of diet—is alcohol. Its use is generally indicated when there is general want of tone, together with depression of the heart's action; but, like all other powerful remedies, it requires to be ordered and given with the greatest caution. In some infantile maladies a few drops of brandy given in milk act most beneficially, but given in larger quantities it would be simply poison; whereas in the case of a person addicted to the use of stimulants, and suffering from diphtheria, erysipelas, or any other lowering disease, to give alcohol in small doses would do no good, but would, on the contrary, in my opinion, do harm.

We have no remedy of greater value than alcohol, and none that requires greater care in its use. Unless great attention is paid to the age and previous habits of the patient, the administration of it becomes most dangerous.

For persons in health the misfortune often is that their circumstances do not allow of them obtaining the necessaries of living properly. This cannot apply to the infants of the poor. I believe more deaths are to be accounted for amongst the infantile population from malnutrition than from any other source. Take the labouring classes of England, and more especially the agricultural labourer, and I suppose a more laborious, better paid (as a rule), or more virtuous class of people could not be found in the world; and yet I believe them to be one of the worst-fed populations that exists, and that simply from a want of knowledge of selecting the most useful kinds of food, or, even after obtaining them, of dressing them to the best advantage. Again, there are certain persons in our community who cannot eat what they like, but must eat what they can get; and specially with this class I would name aged and infirm paupers—men and women with no special disease, and yet who, from old age, are incapacitated from work. These people require nourishment, and not a continual course of medicine; they also require a change in their diet; and I think that with very little, if any, extra expense the regulation meat which is served out to paupers, on the recommendation of the district medical officer, might with advantage be changed from time to time to eggs, milk, extracts of meat, and other things likely to suit the palates of the aged and infirm poor.

There is one class of dietary which requires great attention, and although it has been much altered of late years, still requires reformation—I mean school diet. In most of our large public schools the various meals are under the personal superintendence of the head-master or master of the house, so that any defect in attendance or cooking comes immediately under his notice; but in some private schools the sums charged for tuition and board render it impossible, with the present high price of provisions, that the pupils should be fed as growing boys should be, unless at a great loss to the proprietors. Nothing is of greater importance to children than that they should be fed well and carefully during their early life, and as this is in most cases a time spent at school, I think a thorough inspection should be made at intervals of the diet-tables of our public schools, and, as far as possible, of all the proprietary and private ones. Were more attention paid to diet in youth, I am certain many of the ailments to which we are subjected would be avoided, or at any rate much modified; and if we were more frequently to apply the old maxim—that "where reason rules, appetite obeys"—to our morals, we should not only treat our patients better, but people universally would suffer far less from those "indescribable" pains which we so often hear complained of as age advances by those persons who "live to eat, as well as eat to live."

Fyfield.

THE RIBERI PRIZE.—The Academy of Medicine of Turin proposes as the subject for the next Riberi Prize of 20,000 fr. "The Pathology of the Female Genital Apparatus." Complete treatises and monographs, which may be either manuscript or printed, are admitted to compete. They must be in the Latin, French, or Italian languages, and the printed ones must have been published during the period 1874-76. Two copies must be sent in before December 31, 1876.

INTERNATIONAL DISPOSAL OF LUNATICS.—Up to the present time there is no international legislation with regard to the treatment of foreign lunatics and their restoration to their country (*rapatriement*). England, for example, neither takes them back nor pays for their treatment; and Germany only takes them back, without paying for their treatment. Austria pays for them when their families are in a position to reimburse her. Baden pays 1½ fr. per diem for three months, and then takes them back if necessary. The Duchy of Luxembourg, Russia, and Switzerland are the only countries in which all expenses are paid and *rapatriement* is put into force. Negotiations are now going on to establish complete reciprocity between France and Germany. Reciprocity is, in fact, the ordinary rule between all the countries, whether as regards payment of expenses or not.—*Gaz. Hebd.*, January 21.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASE UNDER MR. MARSHALL.

Epithelioma of Tongue—Excision of part of Tongue—Cellulitis of Neck extending beneath Deep Fascia into Chest—Œdema Glottidis—Trachcotomy—Death.

George F. W., aged thirty-eight, a colour maker, was admitted on January 4, 1875. He is a married man, and the father of six children. He says he has never been ill before now. No history of syphilis can be made out. Never was a great smoker; has given up smoking for the last two years. Fourteen months ago he fell and struck his left shin against an iron bar. The wound healed partially, but ulcers broke out again at the injured spot, which resisted the treatment employed. Eighteen months ago (July, 1873) his tongue was cut by the second upper right molar, which was not removed for three or four months, during which the tongue was constantly irritated by the friction against the very sharp edge of the tooth. After extraction (November, 1873) of the tooth the tongue became perfectly painless and apparently healthy again. But about eight months ago (May, 1874) pain reappeared in the organ. Patient noticed on the right side of the tongue a small white vesicle, the size of a millet-seed, which broke, and left a small ulcer. The ulcer then began to spread, and has done so steadily until the present day. Salivation became profuse. There is little pain except when the tongue is touched. Patient has lived on liquid food for the past three months. Has lost two stone in weight since the disease appeared. Mental depression has accompanied the progress of the disease. The right side of the tongue is much swollen, and is involved in an extensive irregular ulceration which extends half-way along the tongue from tip to base. The surface of the ulcer is smooth and finely granular, of a bright-red colour, and seamed with deep cracks. The edges are level with the surface of the ulcer and slightly indurated, the induration being somewhat knotty. The tumour itself is soft, and does not extend up to the middle line. The rest of the tongue is covered with an opaque white coating. The floor of the mouth is slightly swollen, but equally on both sides. There appears to be a gland slightly enlarged at the right angle of the mouth. On the front of the left leg are ten irregular shallow ulcerations in a patch of inflamed skin, which extends to about the middle of the leg. The largest of these is three inches long by one wide, the smallest the size of a threepenny-piece. All have sharply cut edges and a sloughy surface. Patient looks healthy, but evidently has lost much strength and substance during the course of the disease. There is much anxiety of countenance. Speech is very distinct, considering the state of the tongue.

January 8.—Yesterday patient was thoroughly chloroformed. The tongue was pulled out by means of a string passed through its substance, and held by Mr. Marshall's triangular forceps. The galvanic wire having then been passed around the diseased part of the tongue, and heat applied, the anterior half of the right side was excised. A small portion of the diseased mass, having escaped the action of the wire, was separately excised. On making a section through the mass, the tumour was seen to be opaque and white in the deepest part, semi-transparent and pinker in the more superficial and lateral portions, and to consist of long pointed processes projecting into the muscular tissue. Under the microscope this was seen to be a typical specimen of lobular epithelioma. Patient bore the chloroform well, and has not been sick. During the afternoon and evening he took a good quantity of milk and beef-tea. He slept well. This morning he looks pretty well. There is some head and back ache, but no great pain in the stump. Temperature 99·4°; pulse 88.

11th.—There is much swelling of the glands under the right maxilla. Small pieces of the slough are being loosened. Temperature 102·2°. Spoon diet; brandy ℥iv.

12th.—The swelling of the soft part is increased, but no fluctuation can be discovered. Pyrexia is more marked. Temperature 103°; pulse 96. Extract of beef; brandy ℥viij.; four eggs.

13th.—Temperature 102·8°; pulse 104; respiration 20. The swelling is still considerable, and extends downwards to about the middle of the sternum. No fluctuation can be felt. The slough was partially removed yesterday evening. The stump is not painful and looks quiet.

14th.—Temperature 102·4°; pulse 100.

15th.—Temperature 103·2°; pulse 100. Yesterday, Mr. Marshall made a small incision into the swelling below the angle of the jaw, and pushed a director under the fascia, but no pus could be found. Patient says he feels relieved to-day. There is a distinct blush over the swollen parts.

16th.—The swelling in the neck, which is now very extensive, apparently began in the glands, but was followed by diffuse cellulitis, extending up as far as the ear and down to the lower end of the sternum. The skin became dusky red, and covered with small vesicles containing opaque fluid, and the tissues extremely brawny and œdematous, but never giving a distinct sense of fluctuation. At the same time the voice became thick from swelling of the soft parts inside the mouth, and the patient's pulse was weaker and weaker, his appetite failing almost entirely.

17th.—10 a.m.: Patient found to be sitting upright in bed, breathing with considerable difficulty, inspiration being long, expiration short. The swelling of the neck had extended across the middle line to the left side. The face livid; pulse small and frequent. Epiglottis found œdematous. Two or three drachms of pus were pressed out from incision by manipulation from behind. Mr. Marshall came at twelve o'clock, and passed a probe along the neck to the middle line in front, where it passed into a cavity of some size. Over this he made an incision about two inches long, and let out a considerable quantity of pus. This gave no relief to the breathing. After waiting about ten minutes, it was decided to open the larynx. This was entrusted to Mr. Gould, who began to prolong the incision along the larynx. The tissues along the larynx were swollen, œdematous, and very vascular, so that no points of cartilage could be felt, and the incision caused very free bleeding. After a great deal of trouble, the finger-nail discovered an interval above a cartilaginous ring, supposed to be the cricoid, although it seemed too low in the neck for this. Into this a scalpel was passed transversely. The blood from the wound got into the air-passage, and respiration ceased. Mr. Gould sucked at the wound two or three times, and then began artificial respiration. Air entered through the wound, held open by hooks. After twelve inspirations, a natural effort was made. Artificial respiratory efforts were then restricted to aiding each of these natural efforts, and in a short time respiration was carried on entirely naturally. An attempt was made to introduce a laryngotomy-tube. A small tracheotomy-tube was then put in. This did not prove sufficient, and it was removed. An attempt was made to enlarge the wound by a probe-pointed bistoury, and another attempt made to put in a laryngotomy-tube; but this failed. After considerable difficulty a bivalve collapsible tube was passed in, and the canula put in. A lighted candle was held close to the tube, and at once extinguished by the expired air. The tube was then tied in. The whole of this operation was attended with considerable difficulty, for the ordinary cartilaginous landmarks could not be felt, and the tissues around the larynx were more than one inch in thickness, and very soft and vascular. The operation was performed with the patient in the sitting position. Two enemata of brandy and ammonia were administered, but not retained. After the operation the patient was considerably relieved, though there was still some dyspnœa. The pulse was fair in size, and not very rapid. Patient was removed into private ward, and temperature kept at 70°. Was very restless during the afternoon. One nutrient enema was retained. He was unable to swallow, and as enemata could no more be retained, an œsophagus catheter was introduced, and egg, brandy, and milk injected. The patient died during the night.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASE OF ACUTE RHEUMATISM WITH INORGANIC CARDIAC MURMUR.

(Under the care of Dr. SANSOM.)

[For the notes of the following case we are indebted to Mr. Burtonshaw, House-Surgeon.]

Alfred J., aged eleven years, was admitted on November 20, under the care of Dr. Sansom.

On admission, the patient complained of pain in all his limbs.

He had been ill about four days. Previously to this he had been exposed to wet. The right ankle-joint was swollen, red, and extremely painful. No other joints were affected. A blister was ordered to be applied just above the joint. This relieved the pain very much. A mixture of bicarbonate of potash and tincture of digitalis (Mv.) was given every four hours. The heart-sounds were slightly weakened, but there was no murmur.

November 27.—Pulse 48. Digitalis omitted in mixture.

December 1.—Pulse 58. On examining the heart a soft, musical, short first-sound murmur could be heard over the right ventricle, and as far as the apex, the maximum intensity being at the middle of the ventricle.

4th.—Bruit still more manifest; preserves its musical character; heard at apex, but its greatest intensity is at the fifth costal cartilage at its junction with the sternum. It is heard up to the base, propagated very slightly along the right subclavian, but more distinctly along the left.

On December 7 the patient was ordered mist. ferri perchlor. ℥iv. ter die. All the rheumatic symptoms had disappeared.

8th.—All heart-sounds well marked. No murmur audible.

The patient was discharged cured on December 17, 1875.

Remarks by Dr. Sansom.—The interest of this case consisted in the determination of the nature of the murmur heard over the heart. Was it due to a structural alteration of the valves or not? It would seem at first sight most probable that a pronounced musical murmur developed during the progress of an attack of acute rheumatism would be due to endocarditis of the valves. No doubt such would be the case in a large majority of cases. If any observer had approached the case for the first time on December 4, he would scarcely have hesitated before coming to the conclusion that the murmur was one of mitral regurgitation. It was a decided, clear, musical murmur, of rather high pitch, strictly coincident with the systole. In this case, however, the opinion concerning the murmur was that it was non-structural, and that it would disappear—an opinion which the progress of the case confirmed. During the earlier period of the history of the case, whilst the articular symptoms persisted, it was noted that the area of heart-dulness continued normal; thore was no murmur, but the heart-sounds were feeble. The pulse was regular, and its average was about 60 per minute. It was on account of the feebleness of heart and pulse that the digitalis was ordered, which soon caused a slowing of the heart-contractions even to 48 per minute. After the digitalis had been omitted, and the pulse had risen to 58, the bruit began to be manifested. It was shown that the bruit was not localised at the apex, but over the right ventricle, its maximum being about the middle of the ventricle. Subsequently the maximum deviated to the left, and the bruit was heard quite as far as the normal apex. It was audible at the base, but appeared to be propagated more along the course of the pulmonary artery than over the aorta. There was a marked condition of anæmia in the lad. Dr. Sansom considered that the murmur was generated in the right ventricle, and that it was due partly to anæmia and partly to a weak and tremulous action of the ventricle. The previous effect of the digitalis may have been a predisposing cause. Such ventricular murmurs, difficult to distinguish from those dependent upon organic alterations of the valves, Dr. Sansom has met with in typhoid fever and in tuberculosis.

PROSECUTION OF A PARIS MEDICAL JOURNAL FOR A "POLITICAL" ARTICLE.—It is the French law that any journal published more than once a week, desiring to treat of any political or economial subject, must deposit a security, or *cautionement*, of 18,000 fr.—rather a heavy sum when applied to medical periodicals, some of which appear in Paris three times a week. The Tribunal of Correctional Police has to decide whether inculpated articles are of this nature; and M. Labbée has been summoned before it for an article that appeared in the *Mouvement Médical*, of which he is responsible editor. It was entitled "On Education; Our Conclusions addressed to Medical Students," and M. Labbée pleaded that the article had no political bearing at all, but related solely to a question of social economy. The Tribunal nevertheless condemned him to a fine of 500 fr., and the publisher of the journal to one of 100 fr. It is evident that a French medical editor needs to have all his wits about him, when his "Advice to Medical Students" is liable to be thus dealt with. In the time of the Empire this infraction of the law might have led even to the suppression of the journal.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JANUARY 29, 1876.

FOREWARNED AND FOREARMED.

THE announcement that a paper was to be read before such a body as the Association of the Medical Officers of Health, by the President of the Epidemiological Society, on "The Prospect of a Reappearance of Plague in this Country and on the Continent of Europe," naturally not only greatly interested the profession, but also excited no little uneasy curiosity, not to say alarm, in the minds of the public. So far as the public are concerned, their knowledge of the plague is, as Mr. Netten Radcliffe reminded his hearers, chiefly, if not wholly, derived from the pages of Defoe,—and we suspect that even Defoe's "Journal of the Plague Year," 1666, is not very generally read nowadays,—and it was consequently very startling to have it so much as hinted, by such an authority as Mr. Radcliffe, that after an interval of a hundred and fifty years, plague might again appear amongst us. We were therefore very glad to be enabled to give our readers Mr. Radcliffe's paper *in extenso*, so that they might see for themselves how much could be said in favour of the possibility of the reappearance of plague in this country, and how little in support of the probability of its spreading should it reappear. And we have no doubt that Mr. Radcliffe's paper on the subject has been very carefully read and studied. He showed that though more than one hundred and fifty years have elapsed since the disease disappeared from England, hardly forty have passed since it ceased on the Continent and in its chosen haunts in Egypt, Syria, and Mesopotamia; and that some of its most serious and widespread modern outbreaks on the Continent and in the countries bordering on the Mediterranean had occurred within the present century. But it seemed to have quite died out in the East in 1844. For nearly five-and-twenty years nothing was heard of its existence in its old haunts in the Levant and Mesopotamia; though one circumscribed outbreak, in 1858, occurred in Benghazi, North Africa; and, as it is now known, it had prevailed, in 1853, in the highlands of Western Arabia. Dr. Gavin Milroy, in 1864, in his "Sketch of the Geography, etc., of the Plague

during the Present Century," remarked that this prolonged subsidence of the plague, though a curious fact in the history of epidemic diseases, did not "warrant the expectation of any permanent extinction of the Oriental plague in the Ottoman dominions—unless, indeed, it was accompanied with a substantial improvement in the sanitary and hygienic condition of the people"; and three years afterwards, in 1867, the first of a series of outbreaks occurred in the East. In that year, after an absence of thirty-three years from the district, plague broke out among the Arab tribes living among the great marshes lying on the west bank of the Euphrates, and killed, it is believed, 300 out of 1000 people inhabiting five villages. In the winter of 1870-71 the disease appeared, after an absence of forty years, in Persian Kurdistan; fourteen towns and villages were affected, and 79·5 of the inhabitants attacked died. In 1873 and 1874 it appeared on the Lower Euphrates, and caused 4000 deaths in a population of about 80,000. Outbreaks occurred in other districts also, and in 1875 the disease again broke out on the Lower Euphrates, was as fatal as in 1874, extended over a wider area, and spread on both sides of the Euphrates. The official reports of these several outbreaks show, Mr. Radcliffe pointed out, that the disease presented all its old characters, that, "in its symptoms, its course, its fatality, and its mode of diffusion, it differs in nowise from plague such as it was known in England two centuries ago—such as it occurred in this metropolis in the great outbreak of 1665, and such as characterised it in Europe and the Levant during the past century and the early part of the present"; while "its increased diffusiveness on the Lower Euphrates in 1874-75, as compared with 1867, and its manifestation in three widely separated localities in 1874, suggest that it may be about to enter upon a new period of epidemic activity." Is there, then, any danger of the plague being imported into this country? Eastern and Western Europe are now closely linked together by railways, and by steam navigation the facility and frequency of communication between England and the Continent generally and Syria and Egypt have been enormously increased, so that it seems that, "with any serious prevalence of plague in the Levant, we could hardly hope to escape importation of the disease, either by way of the Continent, or by way of the sea, or by both ways." Since the beginning of the present year an outbreak of bubonic disease has been reported on the Euphrates, on one of the high roads into Syria; and we have no right, Mr. Radcliffe thinks, to believe that we are plague-proof. All this is undoubtedly very alarming; but, happily, we are reassured as Mr. Radcliffe pursues his subject. He holds that, "having regard to the vast social changes which have taken place in this kingdom since plague was a current disease in it, to the present state of our towns, and to the existing sanitary organisation of urban and rural districts, it would seem almost impossible for plague to get a serious hold on the country, and that imported cases should be other than pathological curiosities"; and then he proceeds to point out, with the authority of a master, and in a most satisfactory manner, that the provisions of the Public Health Act (1875) relating to current infectious diseases supply abundant means for dealing with first cases of infection, if properly carried into operation. "The common provisions and arrangements," he says, "which the law aims at securing for the prevention of current infectious diseases in every district of the kingdom, is also the provision which, I believe, is best adapted for arresting the development of foreign infectious diseases, such as the plague, if introduced into a community. From this point of view, English sanitary law stands pre-eminent in its scope and breadth." It would be futile, he observes, to put any trust in quarantine; though, as it is—as the late Sir Arthur Helps stated—"not a medical, but a political question," we might have to put it in force in some measure to satisfy other nations. But it should be clearly understood, Mr. Radcliffe says, that, should plague again appear in this country, the real work of prevention will rest with the local authorities; and that this work, in its initial and more important stages, requires only the judicious and watchful exercise of the powers given by the common sanitary law of the kingdom. This opinion, from such an authority as Mr. Netten Radcliffe, and supported by the approval of the President of the Association of the Medical Officers of Health (Dr. Buchanan), should be amply reassuring. Mr. Radcliffe fully justified, we think, his action in forewarning us of the possibility of a reappearance of plague in this country; and we may, especially after such a warning, trust that our port and other sanitary authorities will by unceasing watch and ward take care that we are fully forearmed for the encounter, should it come.

PROFESSOR TYNDALL ON GERMS.

In 1868-69 an inquiry which Professor Tyndall was making into the decomposition of vapours by light, led to the necessity that he should procure some optically pure air, and the procuring of this air led him to make some experiments on the floating matter of the atmosphere. He found that air passed through closely packed cotton-wool, or through a red-hot platinum tube containing a bundle of red-hot platinum wires, or carefully led over the flame of a spirit-lamp, was optically pure. A beam of light passed through a chamber full of this optically pure air was lost until it emerged on the other side, as there were no particles suspended in the chamber to refract the waves of light. Hence it was shown that the gaseous portion of our atmosphere could not scatter light, and that if it were entirely deprived of all the particles which float in it we should be in total darkness. Pasteur long ago noticed that the air of cellars long undisturbed was almost destitute of germs; and Tyndall now found that if the chamber containing the air was smeared with glycerine, and left quiet for a few days, it became optically pure. Lister had noted the fact that air which has passed through the lungs no longer induces putrefaction in blood mixed with it. Tyndall had demonstrated that expired air is optically pure, before he knew of this fact observed by Lister. These are the main facts and observations which led to the experiments lately detailed by him in a paper read before the Royal Society, and laid before the public in a somewhat more ornamental and attractive form at the Royal Institution on Friday last. He came to the conclusion that "the power of scattering light and the power of producing life go hand in hand." To endeavour to prove his theory by facts, he planned and carried out the series of experiments which we briefly detail elsewhere; and, not satisfied with that, he repeated many of the experiments which have been performed by other observers in this field: the result being that his own theories seem clearly demonstrated, while those of others—built, apparently, on the same foundations, but with a very different superstructure—receive a deadly shock. We will quote a few of the leading views on this much-vexed question, and it will at once be seen that *some* of those expressing them must be greatly in error.

Cohn considers that no putrefaction can occur in nitrogenous substance, if kept free from the entrance of new bacteria after those which it may contain have been destroyed. Pasteur pronounces spontaneous generation "a chimera." The views of Lister are too well known in this country to need recapitulation. Dr. Roberts, of Manchester, who published some beautiful experiments in the *Philosophical Transactions* for 1874, found himself forced, apparently somewhat unwillingly, to the admission that cases of spontaneous generation do occasionally arise; and though the views of Dr. Bastian are also very well known, we will briefly recapitulate one or two. He states that the temperature of boiling water being known t

destroy bacteria and their germs, putrefaction will, nevertheless, occur in flasks containing boiled solutions and hermetically sealed; and that hay and turnip infusions exposed to filtered air, calcined air, or shut off altogether from contact with air, are, nevertheless, prone to swarm with bacteria and vibriones in from two to six days. Tyndall in 1870 sided decidedly with the germists, and was rather roughly handled by some well-known medical writers in consequence; and it seems only fair that, now he brings forward such a battery of facts to support his theories, they should be early placed before the profession.

We now propose briefly to review his experiments, and show of what immense importance they may be to practical medicine and surgery.

In the first series, more than one hundred in number, he boiled various infusions in optically pure air, and then exposed them in this same air; while parts of the same infusions were boiled in just the same way in the ordinary atmosphere, to which they were also freely exposed after boiling: the invariable result being that those in the optically pure air remained fresh as when first boiled, and free from organic life; while a few days sufficed to breed in their companions, exposed to the ordinary atmosphere, putrefaction and swarms of bacteria and their allies. We say "invariable," because the few cases of apparent exception are so simply explained as due to slight defects in the experiments that they rather add to the force of the demonstration than diminish it.

To "minds open to conviction" these results certainly seem to prove what Tyndall started to prove—viz., "That the power of developing bacterial life by atmospheric air and its power of scattering light go hand in hand." And we would commend the experiments to the careful study, and, if they like, careful repetition, of those who believe in spontaneous generation, and also of those who believe that putrefaction and bacteria are only casual acquaintances and companions.

Professor Tyndall is not satisfied to stop here, but he proceeds to call attention to the fact that there are particles floating in the air too fine to be distinguished by the microscope, and yet capable of acting on light; and he proceeds to argue that these small ultra-microscopic particles are probably the germs of these low organisms. After a study of his experiments, no one can deny the probability of this theory, and we think opponents of it must bestir themselves for facts with which to oppose it, if they wish to prevent its acceptance—at any rate, as a strong probability.

We have already referred to the opinions of Dr. Bastian. Professor Tyndall, after carefully repeating his experiments, finds himself forced to very different conclusions, both with regard to hermetically sealed tubes and the influence of calcined air, etc. Out of an immense number of experiments, but one slight accident occurs, and this is clearly explained. While admitting the beauty of Dr. Roberts' experiments, he puts his finger on a minute point of detail which vitiates the results in the very experiments which forced Dr. Roberts into a belief in spontaneous generation.

A careful study of Professor Tyndall's experiments and of the trains of thought which they have started in his mind opens up in all directions new paths of inquiry, which, if carefully traced by diligent observers, cannot fail to be rich in results to both scientific medicine and surgery. Our space is too short to deal at all fully with them, but we must briefly allude to a few.

Thus, the varying colours developed suggest the possibility of establishing a classification of these organisms, which, with a study of their individual actions, may be of immense importance to surgeons in their treatment of wounds. The period of latency in their development, after the particles must have fallen into the fluids, opens a field of inquiry for the thoughtful physician; while comparisons between the latency in epidemic diseases and the different behaviour of the organisms under varying conditions, such as the nature of the infusion, the condition of the animal just before death from the tissues of which the infusion was prepared, are very suggestive. The surgeon, again, may find an explanation for many a puzzling case, which he has lost or nearly lost when the wound, up to a certain point, seemed doing so well, in the theory of germ clouds; and this may also explain the vagaries of epidemic diseases.

The struggle for existence between the bacteria and the moulds suggests many reflections on the peculiar behaviour of certain diseases in different individuals. The fact that the gases emanating from putrid tubes did not infect others so long as the air was kept too quiet to waft spores from one tube to the other is very instructive, and Professor Tyndall points to the singular freedom from enteric fever enjoyed by the old town of Edinburgh, where the refuse of twenty-four hours is allowed to remain and give off its gases in the dwelling-rooms of the poor during that period; each family being merely exposed to the emanations from its own refuse, and not to the general sewer-gas of the community, which may be laden with the floating messengers of disease. He also points to the fact that the quantity of material used in infecting pure tubes from putrid ones does not affect the quantity, or quality, or development of organisms, and compares this result with what we are all familiar with in vaccination.

It seems to us a very instructive fact that the addition of water to the putrefiable fluids favours the growth of organisms and putrefaction. Many surgeons advocate dry dressing, and many object to lotions, as they think they increase the risk of blood-poisoning by diluting the poison, and rendering it more easy of absorption; but may not this observation of Tyndall's give a clue to a different explanation—dilution favouring the more rapid development of organisms, and the attendant decomposition of wound secretions? Our space is exhausted, or we could point to many more equally suggestive observations. It only remains, however, to urge on those members of the profession who have time and inclination to follow out some of these many interesting inquiries, to be as careful in accepting doubtful evidence as Professor Tyndall appears to have been, and to diligently repeat any experiment which seems to contradict the general direction of the results they may obtain.

THE SANITARY RESTORATION OF UPPINGHAM SCHOOL.

Our readers will not need to be reminded that in autumn an outbreak of typhoid fever occurred in the School and town of Uppingham, which led to the School being dismissed at the end of October. So far as we can make out, thirty of the boys in the School had the fever there, and some more fell ill with it after their return home; in at least fifty cases, perhaps, including scholars, children, nurses, and servants, fever was contracted in the school-houses. Various circumstances combined to give great publicity to the outbreak, and some amount of very unpleasant and undesirable feeling appears to have been somehow excited between the School authorities and the Sanitary Authority, or at least between the former and the Medical officer of Health; and the letter which we published last week from Mr. Haviland, and to which we appended an extract from Mr. Rawlinson's report to the Local Government Board, seemed to show that some such feeling still existed. It may be well, therefore, to state, as briefly as we can, what sanitary deficiencies were found existing in the School, and what has been done to remedy them. For this purpose we shall make use of Mr. Rawlinson's report to the Local Government Board; Mr. Tarbotton's report to the Trustees and Head Master of Uppingham School, Mr. Haviland's

report to the Rural Sanitary Authority of Uppingham, and Mr. Field's report to the same authority; all which documents are now before us. Mr. Tarbotton, we will premise, is the civil engineer who was deputed to act for the School authorities; Mr. Field, the civil engineer deputed to act for the town authorities; and these gentlemen acted, or were in constant communication, with Mr. Rawlinson.

If we take as a basis Mr. Field's report, as being free from all possible suspicion of favouring the School authorities, we find—first, that Uppingham itself is described as "essentially a cesspool town"; a system of sewerage has been constructed (chiefly, apparently, since 1871), "but it is very little used, the greater portion of the town still draining into cesspools, many of which are very badly situated and offensive." Both old and new sewers were in effect totally unventilated; the old sewers were faulty in construction, and not laid sufficiently deep; none of the sewers had any provision for flushing; there were defects in the working of the sewage farm; and there was no public supply of water; while from the large number of cesspools the private wells were more or less contaminated. Mr. Rawlinson also says that, after all the expense that had been incurred in sewer-making, "the main sewers have been practically useless, if not in some respects mischievous, as they have not been fully ventilated, regularly flushed, or otherwise properly cared for"; the houses have not been drained, the outlet sewage works have not been properly attended to, private cesspools have not been abolished, and there is no public water-supply, the inhabitants "now drinking, in their polluted well-water, a diluted poison." We give this description of the state of things in the town of Uppingham, because it, at least in part, as it seems to us, accounts for very many of the sanitary defects in the school-houses; and it is to be observed that Mr. Rawlinson says that in 1855 there was a request from the School for local sewerage; and, "as the school-houses have increased in number, reiterated applications have been made by the masters to the Local Authority for public sewerage accommodation, and also for an improved water-supply."

Secondly, as regards the School, there are fourteen houses, including the sanatorium. Nine of the houses are situated either in or close to the town proper; one, the sanatorium, is at some distance to the west of the town; and four are placed to the south, some distance from the town. "Of these fourteen houses," Mr. Field says, "twelve drain either wholly or for the most part into cesspools; one partly into cesspools, but for the most part chiefly into the town sewers; and one entirely into the town sewers. The four houses to the south of the town are in such a position that they could not have drained into the town sewers. The rest, with one exception, have at the present time overflows from the cesspools into the town sewers, and all might have drained into them, and are now, I believe, going to do so. Out of the fourteen houses, five have well-appointed earth-closets in addition to water-closets." In four houses the cesspools were all at some distance from the houses; in four, some were close to, and some away from the houses; and in five, all were placed close to the houses. In four houses the cesspools had all special ventilation pipes; in two, some were ventilated and some were not; and in seven houses the cesspools were "either all unventilated or only ventilated by one-inch pipes, or by soil-pipes of drains discharging into them, or by privies discharging into them." The other grave defects noticed were—the passage of drains unnecessarily under the houses, and their imperfect arrangement and construction; as regarding water-closets, their improper position within houses, improper structural arrangements, direct connexion of their pipes with cesspools, want of ventilation or inadequate ventilation of their pipes; as regards sinks, baths, and lavatories, their improper method of connexion with the drains and cesspools; as regards water-supply, the dangerous proximity of the wells in certain instances to cesspools and drains. Mr. Field then points out that the two chief objects of a perfect system of house drainage should be—"(1) The immediate and complete removal from the house of all foul and effete matter directly it is produced; (2) the prevention of any back current of foul air into the house through the pipes or drains which are used for removing the foul matter;" and he shows how these objects failed to be carried out, and how existing defects should be remedied; and it is to be observed that, as regards the prevention of any back current of foul air into the house, and the disconnection of house-drains with sewers, the arrangements at the sanatorium seem to have been eminently defective. Mr. Tarbotton notes all the defects noted by Mr. Field, and he also observes that "the cesspool system appears to have been the recognised mode of disposing of the sewage at Uppingham," owing to the incomplete and defective condition of the public sewerage; that the sewer in the centre of the town, by which many of the school-houses ought to have been drained, was deficient in depth and construction, and was totally unventilated; and that in the case of one of the school-houses, in High-street, "the cesspool was constructed by the express order of the Local Authority, who declined to allow a direct communication with the sewer." He further remarks that, though the various defects noted were serious, they were only those too often found in the most modern houses and mansions; while from an examination of many in various parts of the country, including the West-end of the metropolis, he felt no hesitation in saying that "the Upper School-houses stood high in the scale of comparison"; and that the masters had "used the means and applied the advice usually available to secure safe and healthy habitations."

Now as to what has been done in the way of improvement. Mr. Field reports that he had the satisfaction of finding himself in accord with Mr. Tarbotton, who had made "an excellent report on the subject, with detailed recommendations for each house, and also drawn up a schedule of regulations and memoranda on house-drainage to be generally carried out in all the school-houses"; and these regulations had met with the approval of the Medical Officer of Health. The essential features of the recommendations were, that cesspools should be abolished wherever practicable, and connexions made with the town sewers, structural defects remedied, and a thorough system of disconnection and ventilation of the house-drains carried out. This has all been done, and completely done; and in the case of the four houses to the south of the town, which could not be drained into the public sewers, several, instead of all, of the cesspools have been abolished, and those remaining are thoroughly ventilated and rendered innocuous; while, as the grounds surrounding the houses are large, the sewage is to be distributed locally by irrigation. Mr. Rawlinson reports that he had gone over, with Mr. Tarbotton, all the alterations, additions, and improvements recommended by him, and was satisfied that each school would be "in as complete and satisfactory a state as the best modern sanitary science can put them"; and, as we reported last week, he expresses his opinion that the sewerage, drainage, ventilation, and water-supply of the several schools have been improved in the best practicable manner; and that "these establishments may be considered in all these respects as perfect as any houses can be made."

Mr. Field has pointed out the measures necessary to place the town of Uppingham in a satisfactory sanitary condition, has devised a system of sewers, and, like Mr. Rawlinson, has specially dwelt on the importance of providing a public water-supply. Measures have already been taken for securing the proper ventilation of existing sewers.

It is not our object now to go into the history of the epidemic, though it is a very instructive one; and we do not

therefore say much of Mr. Haviland's full, detailed, and, we must say, in some parts rather sensational report. It treats, of course, of all the imperfections and defects we have already noticed, and it also enters fully into the history and the causes of the outbreak and spread of the fever; and it must be admitted, we think, that the existence of fever in some of the school-houses ought to have been much sooner reported to the Sanitary Authority. The first case of all occurred in June last, and was not reported; and the next case occurred in the same house as the first, in September; but it seems that no official report of the existence of fever in the School was made to the Sanitary Authority till October 13, at which time there were thirty cases of fever in the school-houses. Who was really and chiefly responsible for this neglect we do not undertake to decide; but, supposing that Mr. Haviland's statements are correct, we think he is justified in holding that had the nature of the disease been at first recognised, its causes properly investigated, and the defects in sanitary arrangements pointed out to the masters of the School, the spread of the disease might have been altogether prevented, or at least very early cut short; and we do not see how the medical attendant of the School can satisfactorily explain his own inaction in this respect. At the same time, it is not easy to understand how it came to pass that no rumour of the existence of fever in the School reached either the Inspector of the Sanitary Committee or any of its members before the fact was officially reported to them by one of the masters.

Mr. Haviland strongly condemns the bathing-pool; and certainly, according to his account, it is anything but a pool of health. He also complains much of the want of cubical space in many of the boys' dormitories and "studies," and of the School dietaries. If his report of the dietary is correct, some improvement of it is decidedly necessary; and we have little doubt that attention will be paid to this and the other defects complained of by him in the School regimen and routine.

It is clear that the state of the town and the school-houses before typhoid fever broke out was such as to insure its spread if it once gained admittance; but, looking at all that has been done for the improvement of the School, and is to be done in the town, we may confidently expect that both will enjoy in the future a long period of uninterrupted health and prosperity.

THE WEEK.

TOPICS OF THE DAY.

Public attention has recently been called to a subject which before now has been ventilated without any satisfactory result; we allude to the question of the utility of, or necessity for, the large amount of sentry duty imposed upon the household brigades, both foot and horse. As regards the purely military portion of the question we, of course, offer no opinion; but taking into consideration the present alarming dearth of recruits, it certainly does seem important to ascertain whether the modification of a harassing and unhealthy portion of duty might not increase the popularity of the service, to say nothing of reducing the steady annual drain which is thereby caused by deaths and invaliding. A reference to the various annual reports on the health of the army shows that the percentage of deaths and invaliding in the Household Cavalry and Foot Guards is greater than in any other arm of the service; and in the report for the year 1873, recently made public, the following passage occurs:—"In the Foot Guards the highest ratios of admissions (to hospitals), of deaths, and invaliding are combined in the 1st Battalion of the Grenadier Guards stationed at London and at Windsor." The soldier on night duty lies down in his clothes in a guard-room, kept something more than healthily warm, and turns out thence into the keen night air, to pace up and down during his allotted period of watch, or, still worse, to stand shivering in a cold sentry-box. He lacks even the stimulating amount of excitement attendant on a similar position in time of war, when the necessity for vigilance may do something towards relieving the monotony of his employment. It is not therefore surprising, under these circumstances, to find that bronchitis and phthisis are so frequently met with, and the Horse Guards would do well to consider whether the efficiency of the service could not be equally well maintained if a large portion of the present useless posts were abandoned, and that costly machine, a thoroughly trained soldier, were a trifle more economised.

Sir Sydney Waterlow, in addressing his constituents at Maidstone last week, informed them that the Metropolitan Board of Works proposed to build on the area in Gray's-inn-lane, which is to be cleared of its present fever- and vice-breeding tenements, a thousand homes in flats for the working classes, each home to consist of a single room, with the necessary domestic offices on open balconies. Sir Sydney Waterlow is generally most accurate in his statements, and if this be the fact, we fear that the contemplated reforms in the locality in question will not be so desirable as they should be. Single-room dwellings for artisans should not be encouraged: they are bad both from sanitary and moral points of view, even when fitted with all the modern appliances; and we shall be glad to hear that the speaker was misunderstood by those who reported his speech upon the occasion in question.

It is generally understood in the insurance offices of the United States that the average length of life in that country is greater than in England as shown by the English tables; and this accounts for what would otherwise be unexplainable—the immense profits realised by the life-insurance offices there—the rates of insurance being chiefly based upon English tabular estimates of life—another proof of the "smartness" of our cousins across the Atlantic.

If the following tale is to be credited, that much-enduring organ, the human stomach, has sometimes an exceptionally hard time of it. A post-mortem examination of a lunatic who died in the Prestwich Asylum led to the discovery of no fewer than 1841 indigestible articles in his stomach—namely, 1639 shoemaker's sparables, six 4-inch cut nails, nineteen 3-inch, eight $2\frac{1}{2}$-inch, eighteen 2-inch, forty $\frac{1}{2}$-inch, and seven $\frac{3}{8}$-inch cut nails; thirty-nine tacks, five brass nails, nine brass brace-buttons, twenty pieces of buckles, one pin, fourteen bits of glass, ten small pebbles, three pieces of string, one piece of leather three inches long, one piece of lead four inches long, and one American pegging awl—the total weight of these articles being 11 lb. 10 oz.!

A deputation from the Hackney District Board of Works waited upon Mr. Cross last week at the Home Office, to urge upon the Government the importance of introducing a measure for preventing the present wholesale use of refuse and cinders as foundations to houses. The deputation explained to Mr. Cross and Mr. Sclater-Booth that it was the practice of many builders to take out the sand and gravel in making foundations for houses to be built, and fill in the holes with the foulest refuse that could be met with. The Nuisance Removal Act afforded no assistance in this matter, and special legislation was absolutely necessary. Dr. Tripe, who accompanied the deputation, said that one consequence of the nuisance was consumption, as well as fever, arising from houses being erected on rubbish-shoots. He had tried all in his power, as medical officer of health, to prevent such deposits, but had failed, owing to magistrates holding that they must prove injury to the health of some individual passer-by, which of course it was impossible to do. He also quoted the opinions of medical officers in different parts of the country on this subject, which bore out the views he had expressed. Further, Dr. Tripe maintained that it should be made illegal to erect buildings

over these deposits; and that a condition should be imposed whereby a layer of sufficiently good concrete, to the satisfaction of the District Board and the surveyor of the Board, should be used, so as to secure that the concrete would offer adequate resistance to the admission of any foul air into the houses. Also that all drain-pipes going under houses should be laid in concrete, owing to the fact that pipes occasionally give way, and emit most injurious smells. Mr. Sclater-Booth remarked that in the country they had by-laws which placed the remedy in their own hands. Mr. Cross, in acknowledging the great danger which did arise—though people did not know it—from the circumstances they had just mentioned, promised to see whether some provision could be made to meet the requirements of the case; he would require a little time to think the matter carefully over. The deputation, thanking Mr. Cross for the attention he had given them, then withdrew.

Apropos of the recent outbreak of fever which we noticed as having occurred on board her Majesty's ship *Sultan*, we now learn from the *Globe* that the frequency of fever cases on board her Majesty's ships when stationed at Gibraltar—their berth being near the "outfall"—having attracted the attention of the Colonial Office, steps are being taken to prevent the drainage from flowing direct into this sheltered portion of the harbour.

It has been reported to us that the female domestic who, it will be remembered, brought a serious charge against a medical man residing at Brighton, in September last, has left this country. The case was sent for trial at the assizes which will be held in March next, and if the rumour which has reached us is confirmed by the non-appearance of the prosecutrix, it will necessarily assume a different character.

A rather singular case is reported from the Camp, Aldershot. On Monday last, by order of General Sir Thomas Steele, a Court of Inquiry, under the presidency of Colonel Elkington, assembled at the Camp under unusual circumstances. An officer of the 21st Hussars reported himself sick, and was informed by the medical officer attached to that regiment that he was not ill. He therefore consulted some civilian practitioners, from whom he obtained certificates to a contrary effect. He has, in consequence, insisted on an investigation of the case, and Sir Thomas Steele has ordered the Court to report to the Assistant Adjutant-General without delay. One of the members of the Court of Inquiry is a surgeon-major.

The case of the Queen *v.* the Guardians of the Keighley Union was heard last week in the Queen's Bench Division before Mr. Justice Blackburn and Mr. Justice Lush. This was a demurrer to a return to a writ of *mandamus* which commanded the defendants to carry out the directions contained in the rules and orders of the Local Government Board on the subject of the Vaccination Act of 1874. Two of the paragraphs of the return which was demurred to, in effect stated that it would be prejudicial to the health of the inhabitants of the district to carry out the provisions of the Act. The Court, however, remarked that that was a matter for the Legislature, and not for them. A further objection was also set aside by the Court.

The fourth annual report of the National Committee for Promoting the Boarding-out of Pauper Children has recently been published. It shows that the plan is steadily extending throughout the kingdom, and asserts that guardians are beginning to listen to proofs that the system has great economical advantages in addition to its freedom from a pauperising tendency. The Committee state that, with a very small expenditure, they have materially promoted the objects they have in view; and their accounts show that the expenditure for the past year has been very slightly in excess of income.

Dr. John Thomas Banks has been appointed a member of the Senate of the Queen's University, Dublin.

TYPHOID IN THE GARRISON OF DUBLIN.

In an interesting and valuable paper on "Typhoid Fever in the Garrison of Dublin," read before the Medical Society of the College of Physicians of Ireland last month, Surgeon-Major Gore says that fever is never absent from Dublin, being apparently both endemic and epidemic. It becomes very fatal in the autumn when the mean temperature falls below 54°, the mortality continuing to rise with the falling temperature. There is a striking increase in the percentage of the amount of typhoid towards the close of the year, while the highest percentages of typhus are met with in the contrary seasons of winter, spring, and early summer: the reasons being that typhus is often intimately related to overcrowding, and bronchial and thoracic affections are amongst its most frequent complications, while typhoid is connected with a specific contamination of air and water by sewage matter, and its secondary phenomena are developed generally in connexion with the digestive system. Hence its greater prevalence when the autumnal rains wash into the sources of water-supply the decomposing matters, which were innocuous as long as the skies were rainless. Febrile diseases were much less prevalent in 1875 than in 1874. Among the troops the admissions into hospital were confined almost exclusively to typhoid, owing probably to the fact that some of the essentials to the production of typhus—viz., want of food, proper clothing, *plus* undue exposure to wet and cold, and overcrowding—were entirely absent, whereas defects in the mode of getting rid of the excretions were not infrequent. In the eleven months ending November 30, 1875, the mortality from typhoid in the civil population of Dublin was equal to a ratio of ·04 per cent., but in the garrison it amounted to only ·02. There were no cases of typhus in the garrison during the year. The low rate of zymotic diseases as a whole, the entire absence of typhus, and the small rate per cent. of mortality from enteric fever, speak very favourably for the sanitary efforts of the military authorities in Dublin. As regards treatment, Surgeon-Major Gore states that on admission to the hospital, typhoid patients were given a warm bath, then placed comfortably in bed, put on milk diet, with one or two pints of beef-tea daily, and lemonade or soda-water. If there was much heat of skin, some simple diaphoretic was given, cold applied to the forehead, and the hair cut close. In case of excessive diarrhœa, chalk mixture was given, but, as a rule, it was found to be the better practice not to meddle with the diarrhœa. As the disease progressed, and symptoms of debility appeared, the quantity of beef-tea and milk was increased, and stimulants given *pari passu* with the gravity of the symptoms, and weakness and rapidity of the pulse. Stimulants always had a good effect when the patient was low, but proved injurious during the increase or normal rise of the fever. The use of stimulants caused a sense of relief, steadied the pulse, and moderated the restlessness and delirium. To induce sleep, Dover's powder or chloral were occasionally administered; head symptoms were relieved by blisters behind the ears; determination to the lungs by jacket-poultices, sinapisms, and expectorants; abdominal tenderness and meteorism by turpentine stupes; throat symptoms by chlorate of potash gargles, etc. Ale, porter, and port wine were given during convalescence, with chicken diet. In the discussion which followed the reading of the paper, Dr. Grimshaw said that in the treatment of enteric fever his practice was to leave the patient as much as possible alone. Unless the diarrhœa was excessive, great caution should be exercised in checking it. He had tried the cold water treatment, and he

did not intend to try it again. No doubt it cooled the patient, but the question was not yet settled whether high temperature *per se* was dangerous. Temperature could be more safely reduced by quinine, which acted also as a tonic. He had found it of the greatest possible value in cases of enteric fever.

THE RECENT ACCIDENT ON THE GREAT NORTHERN RAILWAY.

We are enabled to publish the following list of the casualties which resulted from the recent terrible collisions at the Abbot's Ripton block signal-box station of the Great Northern Railway. We believe that the particulars were taken from the note-book of Mr. T. Carr Jackson, the surgeon to the Company, and may be therefore relied on as absolutely correct. The following were killed on the spot, viz.:—Mr. James Sanderson, agent to the Marquis of Exeter, of Brecknock-road, London; Mr. Ben Jollife, farmer, of Yafford, in the Isle of Wight; Misses Elizabeth and Margaret Burdon-Sanderson, nieces of Dr. Burdon-Sanderson, and daughters of Mr. Richard Burdon-Sanderson, of Newcastle-upon-Tyne; Mrs. and Misses G. and H. Fosbery; Mr. Dion William Boucicault, eldost son of Mr. Boucicault, the dramatic author and actor; Mr. Herbert W. Noble, son of Mr. M. Noble, the sculptor, of Bruton-chambers, London; Mrs. Allgood and two sons, of Ingram Rectory, Northumberland. Mr. Thomas M. Mure, a member of the Scotch bar, was very severely injured; his left calf was fearfully lacerated, there was a badly comminuted fracture of the fibula, and he had received a severe shock. His injuries were attended to at the Huntingdon County Hospital, in which institution he died on Sunday morning. The following is a list of the rest of the injured, together with the nature of the injuries received, viz.:—Mr. R. Burdon-Sanderson, fractured leg, right arm, and clavicle. He has received a severe shock to the system, and his case is further complicated by a chest affection for which he was on his way to Italy. He was, when our report reached us, going on well. Mrs. Sanderson, wife of the above, severe shock to the system and bruises; Mr. A. Fawcus, of Seaton Carew, Durham, comminuted fracture of leg; Mr. Foster, of Halifax, severe injury to right leg; Miss Kellie, of Dunse, N.B., bruise of temple and shock; Miss Mary Calder, travelling with Miss Kellie, wound of forehead and contusion of left arm; Mr. A. E. Oudet, of New Cross, fracture of ulna and slight graze of head; Mr. H. C. Abbs, of the Temple, bruised legs; Mr. P. Lelich, valet to the Russian Ambassador, compound comminuted fracture of the left leg—altogether a very bad case; Mr. D. Attrill, of the Isle of Wight, bruised and cut about the head; Mr. Cleghorn, a director of the North-Eastern Railway, compound fracture of left arm; James Cattley, driver of the Scotch express, right hand crushed and middle finger cut off, contused knee and severe shock. The following received slight injuries, viz.:—Mr. Christisen, of the Isle of Wight; Mr. W. Brice, of South Shields; Captain Long, Ashbury; Mr. Allerton; Mr. Yeoman; Mrs. Cocksedge; Mr. Myers, of Louth; and Mr. F. Hodgson, of Darlington.

FEMALE MEDICAL STUDENTS IN RUSSIA.

The St. Petersburg newspaper *La Semaine* states that in 1875 there were 171 ladies preparing to become doctors in Russia. Of these, 102 belonged to the nobility, 17 to the merchant class, 14 to the class of shopkeepers, 12 to clerical families, and the remaining 24 to various ranks of the middle classes of society. In religion, 23 were Jewesses, 12 Armenians, and 3 Lutherans; the remainder were all members of the Orthodox Church: 23 were married, and 53 were highly complimented by the Director of the Faculty of Medicine on receiving their diplomas. To some minds these facts will afford material for reflection, and for comparing the state of female medical education in Russia with that in our own country in a way not entirely favourable to the latter. In Russia the *à priori* objections to the study and practice of medicine by females, of which we hear so much in England, and which have given rise to such angry recriminations between those interested in advancing and in opposing female progress, have been put to the test, and found untenable. It has been even discovered that not only two or three, but as many as fifty women can in one year finish their medical studies, and be permitted to commence practice, after passing a final examination so creditable as to elicit the warm congratulations of the examiners—"*les plus vives félicitations*" is the original wording. A friend, with more wit than delicacy, has suggested to us that the reason why English medical examining bodies, far from congratulating any female candidates on their success, refuse to examine them at all, is because they are actuated by a kind of feminine jealousy, which prompts to opposition; and he actually muttered something about "old women," which we dare not repeat. The number of female medical students in Russia from the ranks of the nobility is very remarkable. In England not even noblemen become doctors, far less noblewomen, though we must give the latter credit for having taken and continuing to take much sincere interest in the arrangements of hospitals and in nursing. It is difficult to see why medicine should not be studied by the younger sons of the nobility in England, just as law is, or horse-racing is, or pigeon-shooting is. If Pope is right, and "the noblest study of mankind is man," the study of medicine must be nobler even than tea-tasting or other commercial pursuits which are now reckoned as "the last resource of noble minds." The example which noble ladies have set in Russia is a very valuable one, and might be commended to the notice of the male members of the same class in this country.

MEMORIAL OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND TO SIR MICHAEL HICKS BEACH, BART.

The King and Queen's College of Physicians in Ireland have presented a memorial to the Chief Secretary for Ireland on the subject of the necessity of retaining the office of Medical Commissioner to the Local Government Board of Ireland. The memorial explains that the College have been induced to take this step on account of a rumour having been circulated that it is not the intention of the Government to fill up this office reported to be vacant by the resignation of Dr. McDonnell—a step which would be likely to be attended with serious detriment to the public. It is further urged that not only has the extension of the Poor-law Medical Service proportionally increased the necessity for a Medical Commissioner, but since the institution of that service in 1851, and reconstruction of the Irish Poor-law system, several new and important duties have from time to time been imposed upon the Board by advancing legislation. These new duties being to a great extent of a technical and professional character, the College submit that they can be efficiently administered and superintended only by a medical head in the department. The various Acts of Parliament relating to Ireland which require medical supervision are recapitulated, and it is pointed out that a suggestion (made by the Commission appointed in 1872 "to inquire into the state of the Civil Service in Ireland") that the Local Government Board there should obtain the occasional assistance of a Medical Inspector, in lieu of a permanent Commissioner, was protested against by the College at the time. The memorial concludes by stating that as the Army, Navy, and Local Government Board of England, the Poor-law Board of Scotland, and the various Colonial Medical and Sanitary Boards have each a permanent medical chief, the College see no reason why a different course should be adopted with regard to the highly important Public Medical and Sanitary Service of Ireland. We trust that Sir Michael Hicks Beach will accord this memorial the attention which the importance of the subject undoubtedly demands for it.

THE SANITARY CONDITION OF NORTH DEVON.

HITHERTO the towns and villages in North Devon have not enjoyed a particularly high reputation as regards their sanitary condition, and outbreaks of typhoid and other epidemics have been very frequent in the district. It is therefore satisfactory to hear that those who are responsible for the sanitary condition of the district are effecting many necessary reforms with a view to protecting and preserving the health of the inhabitants. In his annual report just issued, Mr. Blyth, Medical Officer of Health for the large union districts of Dulverton, Bideford, Okehampton, Southmolton and Torrington, says that he can honestly affirm that numerous unhealthy influences have been removed or remedied; that considerable progress has been made generally. Among other places, many permanent improvements have been effected at that romantic summer resort, Clovelly, near Bideford, which, says Mr. Blyth, "is now in a very different state from what it was six months ago, and will present next summer to the tourist all its charms of wild, natural beauty, unsullied by the unromantic refuse of its inhabitants." The mortality throughout the district has been higher than in 1874, which is believed to be due to adverse meteorological conditions—viz., excessive cold in the early part of the year, and extreme humidity in the summer and autumn. There were a few epidemics of typhoid during the year scattered throughout the district, but they were of an extremely mild and non-fatal character. Diphtheria also prevailed, but to what extent is not exactly known, as Mr. Blyth says that it is very probable that cases which are returned as croup by many practitioners are in reality diphtheria. Respecting pneumonia, which was unusually prevalent during the year, Mr. Blyth says that evidence accumulates in his hands that acute pneumonia is really infectious; and he lays great stress upon this opinion of his as to the infectious nature of pneumonia, in order that those who are in contact or who nurse the sick affected with this disease may take suitable precautions. Very few will, we believe, be disposed to agree with Mr. Blyth on this question, but we would say nothing to discourage him from pursuing his investigations in this direction. It may be that he will ultimately happen on some facts that will set the question at rest, at least in his own mind, one way or the other. Meanwhile, we can congratulate him on doing some good sanitary work in North Devon.

THE CONTAGIOUS DISEASES ACTS AT SHEFFIELD.

LAST week a meeting was held in the Temperance Hall at Sheffield, to hear the reply of Mr. J. Edley Taylor, surgeon, to the opponents of the Contagious Diseases Acts. Mr. Taylor's address, which was much too long for us to give in detail, reviewed the whole subject from the beginning: in a temperate and clear manner he explained the whole working of the Acts; and replied to the various charges brought against them by Mr. Stansfeld, Mr. Mundella, and others, by showing the amount of exaggeration and highly coloured statements which had been brought to bear on the question. He further proceeded to refute many of the figures put forward by Dr. Birkbeck Nevins, and concluded by observing that many people, who had been deluded into opposing the Acts by statements which could not be maintained when they came to be examined, were withdrawing their opposition.

While on this subject, we may remark that we have received a copy of a journal published in Liverpool, which appears to have been originated for the purpose of opposing the Contagious Diseases Acts. We are sorry to find, on looking over it, that the nature of the opposition is of the same character as that adopted at the various meetings periodically held with a view of bringing about a repeal of the Acts; but we suppose it is useless to point out that personalities are not arguments, and that a subject of so much importance is at least worthy of temperate discussion.

MEDICAL ADVERTISING IN VICTORIA.

ADVERTISING in lay papers by medical practitioners in Victoria has of late been notoriously on the increase. At length the Medical Society of Victoria has taken the matter up, and held a special meeting to consider and express an opinion on the conduct of Mr. John Wilkins, F.R.C.S. Edin., M.R.C.S. Eng., Honorary Surgeon to the Alfred Hospital, Melbourne, a member of the above Society, who had advertised, stating the hours he could be consulted at home, and also giving notice that after a certain date he would "attend out-door practice in medicine and surgery." From the discussion at the meeting, it appears that objection was taken to Mr. Wilkins' conduct on three grounds—first, that, in addition to appending his legitimate titles, he had also placed "1st M.B. Lond." after his name, with the object of inducing the public to believe that he possessed an additional qualification; second, that the style of the advertisement was calculated to deceive, as it represented that Mr. Wilkins was effecting a change in his practice, when the fact was that he had all along taken out-door practice; third, that he had aggravated the offence by continuing the advertisement in the papers after he had been remonstrated with by the Society's committee. After several members of the Society had spoken—all expressing disapproval of the advertisement,—Mr. Wilkins offered an explanation, and said that he had no wish to act in opposition to the wishes of his professional brethren; and if the feeling of the Society was that the advertisement was unprofessional, he would bow to that decision. It was then resolved "That Mr. Wilkins' conduct in issuing the advertisement be considered unprofessional"; also, "That the Society declares its satisfaction that Mr. Wilkins has expressed his regret at having issued the advertisement, and his intention of withdrawing it." The members of the Medical Society of Victoria may be congratulated on the result of their action in this matter, which will doubtless have a happy effect in restraining the advertising tendencies of those members of the profession in Victoria who systematically parade their names before the public in the columns of the daily and weekly newspapers.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting was held on January 11—Sir George Burrows, Bart., President, in the chair. The report showed that the total amount received by the honorary financial secretary during the year 1875 comprised £951 subscriptions and £881 donations; there was also £200 in legacies. The sum of 1295 was distributed in grants of immediate relief among 126 distressed medical men and widows; and as, in many instances, these had families dependent on them, the aggregate of persons to whom aid was afforded greatly exceeded that number. Among the principal donations were—Dr. Warburton Begbie, £105; Professor Erasmus Wilson, £105; Sir Wm. Gull, Bart., £50; Dr. Charles Shrimpton, £100; the Trustees of the late Miss Brackenbury, £150; the Sydenham District Medical Society, East Surrey, £52 10s.; the late T. Bliss Pugh, Esq., £40; Dr. Begley, £50, etc.; legacies of £50 from the late Dr. William Beattie, and £150 (through J. S. Bartrum, Esq.) from the late Miss Davies. The number of annuitants receiving from £10 to £20 per annum was thirty-nine, from whom, after full consideration, four were selected by the Committee to receive grants from the special fund, increasing the annuity in each case to £26. Special votes of thanks were accorded to Messrs. J. and A. Churchill, for their liberality in providing a room for the meetings; to the editors of the medical journals, for their continued advocacy of the claims of the Fund; to Messrs. T. H. Hills and E. Parker Young, as auditors; to Dr. Jonson, for his valuable services as chairman of committee; to Dr. Broadbent, the treasurer; to Mr. Webber and Dr. Hett, the honorary secretaries; and to Sir George Burrows, for presiding.

THE CATERHAM IMBECILE ASYLUM.

From the annual report of the Committee of Management of the Metropolitan Imbecile Asylum at Caterham, we learn that 2351 patients were treated in the Asylum during the year, of whom 486 were fresh admissions. Of these only twenty-eight were discharged cured; twenty-one were sufficiently improved to be removed to the care of their friends, and twenty-nine were removed to county asylums as dangerous or suicidal. The admissions were fewer in number than in former years, but the cases were of a more hopeless character. In former years age and imbecility were the chief characteristics of the imbeciles admitted at Caterham; last year a large number of the admissions were patients suffering from some severe form of brain disease, evidenced by such conditions as advanced general paresis of the insane, epilepsy and other convulsive diseases, chronic chorea, paralysis agitans, etc. Dr. Adam, the Medical Superintendent, reports that the recoveries of the year were less than one-half of the number discharged as cured during the previous year. This he explains by the fact that the possibly curable have been mostly sent away recovered; and the cases of those filling their places are so hopeless as not to admit of cure. The total number of deaths was 294, as against 192 in the previous year, the increased mortality being accounted for by an unusually severe winter.

ARSENIC-EATING.

At the last meeting of German naturalists and physicians at Graz, some very interesting facts were related by a Styrian physician, Dr. Knapp, with reference to the above subject. He stated that he was personally convinced that there are a large number of persons in Upper and Central Styria who eat arsenic, and that he had known many grooms, woodmen, and hunters, and also some women, who were habituated to its use. Arsenic-eating is generally begun at from seventeen to eighteen years of age, and it may be continued till very late in life. It is difficult to give any statistics as to the number of persons who indulge in this practice, for most of them are anxious to conceal the fact. Those who admit it generally assign as their reason for arsenic-eating, either that it protects them from certain diseases, that it gives them a healthy look, that it makes their breathing easier, or else that it improves their digestion. The arsenic appears to be sometimes used by the Styrian women to produce abortion; and Dr. Knapp has met with one case in which it was used for that purpose with fatal results.

Arsenic-eaters, according to Dr. Knapp's observations, have a strong and healthy appearance, and they often live to a great age. Dr. Knapp believes that it is only persons of strong constitution who can accustom themselves to the use of arsenic. He has never observed the development of any cachexia in habitual arsenic-eaters: we can believe this when he mentions the case of a man of seventy, who stated that he had been an arsenic-eater for more than forty years. Arsenic is taken in two forms—either in that of arsenious acid, or else as yellow sulphide of arsenic,—and it is either swallowed by itself in the dry state, or else spread on bread. Only very small doses are taken at first, and the quantity is gradually increased. The largest dose that Dr. Knapp ever saw taken at one time was fourteen grains. The intervals between the doses vary much in different individuals: some only take it once a fortnight, others once a week, and others again two or three times a week. At the conclusion of his lecture Dr. Knapp exhibited two arsenic-eaters *propriis personis*, and proceeded to give one of them a dose of 0·3 grains of sulphide of arsenic, and the other 0·4 grains of arsenious acid, before the assembled audience. In the discussion that followed, in answer to a question whether the prolonged use of arsenic gave rise to impotence, Dr. Knapp replied that, as far as he had observed, the sexual power was increased rather than diminished. Dr. Kaposi, of Vienna, speaking of the prolonged use of arsenic in chronic skin diseases, mentioned that a patient suffering from lichen rubra in the course of one year took as much as 22·5 grammes of arsenious acid, and with the most favourable results.

TEMPERATURE OF THE WEST OF IRELAND.

In the *Daily Express* we find a letter from Mr. Pike, of Achill, drawing attention to the remarkable warmth of that island, as compared with other parts of England and the Continent. He finds, on reference to a daily register, that the temperature averages 7° Fahr. higher than that of London during the winter months; and we have reason to believe that this represents a more equable as well as a higher temperature. He attributes it to the influence of the Gulf Stream, "which renders this locality warmer than some more southern portions of Ireland, though all the west coast is affected by it." In reference to the salubrity of this district, Mr. Pike says—"The late Dr. Adams, a well-known physician, after a successful career in Dublin, retired, about the year 1834, to the island of Achill. He resided there about twenty years, and attended gratuitously a population of over 5000, and he assured me that during that time he had not known a case of pulmonary consumption amongst the inhabitants. This my own experience for more than twenty-two years, as Chairman of the Dispensary Committee, fully bears out." The island of Achill, situated off the coast of Mayo, at the north-west corner of Clew Bay, is but seldom seen by those who visit Connemara, but it affords a great many points of interest and attraction; the scenery in many parts is wild and romantic in the extreme, and it possesses a number of natural objects, the very existence of which in the United Kingdom is probably not suspected by the majority of Englishmen. Whether or not the West of Ireland is much more accessible than the South of France may perhaps be doubted, but that Achill and its neighbourhood would offer great advantages as a health-resort for consumptive patients can hardly be a matter of question.

DEATH FROM THE ADMINISTRATION OF CHLOROFORM.

On last Saturday morning, January 22, a young man, aged twenty-two, died from the effects of the administration of chloroform, which was administered as an anæsthetic in Steevens's Hospital, Dublin. The patient came to the Hospital to have a simple though painful operation performed, and at his own request was brought under the influence of chloroform, his heart having been previously carefully examined and found healthy. The operation was over, and the man had recovered consciousness, when sudden syncope, ending in death, occurred. Every suitable method for restoring animation was tried in vain. At the coroner's inquest, held last Monday, an uncle of the deceased stated that he had recently recovered from typhoid fever, but this fact had not previously come to the knowledge of the Hospital staff, most of whom were present in the operation-theatre when the lamentable occurrence took place. The jury returned a verdict entirely exonerating the Hospital staff from blame.

A MILITARY COLLEGE AT OXFORD.

An association, among whom are many gentlemen connected with the army, has been formed for the purpose of founding a Military College at Cowley, near Oxford, in order to provide the best possible education for the sons of officers, to train and prepare candidates (whether sons of officers or not) for commissions in the military service, and to enable its senior pupils to keep residence as unattached university students, and to take degrees. The freehold of Cowley School and the adjoining land, which is situated on high ground about two miles from Oxford, has been secured for the purposes of the proposed College.

GEORGE GREEN GASCOYEN.

We greatly regret to announce the untimely death of Mr. G. G. Gascoyen, Assistant-Surgeon to St. Mary's Hospital. A year or two ago Mr. Gascoyen found it advisable to retire for a time from work on account of some delicacy of his lungs; but he speedily returned, apparently quite restored, and was gladly welcomed back by his friends, who were many. Since that time he has worked on steadily, not, perhaps, quite so vigorously as before, but still with no little energy and activity. Mr. Gascoyen was one of the recently elected Anatomical Examiners at the College of Surgeons, and took part in the examinations on two occasions. The work, however, and the exposure to the night air seem to have been too much for him: he was seized with pneumonia, and in no long time passed away. How lovable a man Mr. Gascoyen was, how gentle and how kind, many can tell. With him, unfortunately, dies a vast accumulation of knowledge, especially relating to syphilis, the result of many years' labours in the Lock Hospital: this we had purposed to lay before our readers, but we fear it is now lost learning and experience.

OBSTETRICAL SOCIETY OF LONDON AND THE MIDWIFERY QUALIFICATION OF THE COLLEGE OF SURGEONS.

We learn that an influential committee has been appointed by the Obstetrical Society to take cognizance of the action of the College of Surgeons in reference to the midwifery licence. It is understood that this important Society will protest vigorously against any attempt at degrading midwifery practice by the threatened "levelling down" which appeared until now to be imminent. But we have reason to believe that the College Council Committee on the matter have decided to wait the further progress of the Conjoint Board Scheme before proposing any change in their regulations.

CREMATION IN ITALY.

The *Pungolo* of Naples lately had the following statement:—"The erection of a building for the purpose of cremation in our cemetery is nearly finished. The altar on which the remains of Chevalier Albert Keller are to be burnt is already fixed, and the crematory apparatus is in its place. It consists of a large hollow iron cylinder, in the interior of which there will be 200 gas jets. It is calculated that the heat given out by the latter will be sufficiently intense to reduce the body (which will be placed in the middle of the cylinder) to ashes in about an hour." The date fixed for the cremation was January 15.

UNIVERSITY OF GLASGOW: CHAIR OF NATURAL HISTORY.

We understand that, owing to the liberality of Mrs. Honeyman Gillespie, the emoluments of the chair of Natural History will be materially increased by a sum of money specially set aside for that purpose. Hitherto the subject of geology has been taught by the Professor of Natural History, and it is in order to advance instruction in that subject that the present liberality has been shown. We understand it is now the intention of the incumbent of the chair to avail himself of the services of an assistant, the office to be looked upon as a sort of prize to the most deserving student in his class.

OBSTETRICAL SOCIETY.

At the next meeting of the Obstetrical Society, to be held on Wednesday, February 2, the discussion on Dr. Meadows' note on the Post-mortem Diagnosis of a Multiparous Uterus will be resumed, when it is expected that specimens illustrative of the subject will be brought forward by Dr. Braxton Hicks and others. We believe that several visitors will attend the meeting.

Professor Wilson, F.R.S.—This gentleman will commence his annual course of lectures on Dermatology in the Theatre of the Royal College of Surgeons on Tuesday next.

PROFESSOR TYNDALL AT THE ROYAL INSTITUTION.

A BRIEF ACCOUNT OF HIS EXPERIMENTS, WITH SOME OF THE DEDUCTIONS HE HAS DRAWN FROM THEM.

Wishing, if possible, to throw some light upon the much-vexed question of germs and their relation to putrefaction and disease, Professor Tyndall, F.R.S., has planned and carried out a large series of experiments, and he has just laid the results before the Royal Society, in a paper entitled "The Optical Deportment of the Atmosphere in relation to the Phenomena of Putrefaction and Infection," and before the public more generally in a lecture delivered at the Royal Institution on Friday last.

Starting from the discovery that a box smeared inside with glycerine, and allowed to remain at rest for a few days, contained at the end of that time air optically pure or free from floating particles, he arranged a box so that twelve test-tubes were fixed in its bottom, their open ends projecting into the box, while their lower halves remained outside. In the top of the box a pipette was fixed, with an arrangement for lateral motion, so that it could be used to introduce fluid into the tubes. In the top were also fixed two tubes bent several times in a manner known to stop all particles when air passes slowly through them; windows were fixed in the two sides so that a beam of light could be projected through the box, and the whole of one side was made of glass. All these different parts and articles were so fixed that their joints were air-tight. The box was now left at rest for three days, when a beam of light passed through it was lost during its transit—*i.e.*, there were no particles suspended in the air of the box to refract the light. The contained air was optically pure. The tubes were now filled with fresh urine, which was boiled for five minutes by immersing their lower ends outside the box in boiling brine. The bent tubes were temporarily plugged during the removal of the brine, lest the sudden alteration in temperature should allow air to be sucked into the chamber too suddenly for their bends to filter it of particles.

Eight other tubes were filled with the same urine and boiled in the same way, but left exposed to the ordinary air of the laboratory standing beside the case.

The box was placed at rest on September 10, and on the 13th the air was found optically pure, and the two sets of tubes were filled, and on the 17th those exposed showed specks of mould and turbidity, which was found under the microscope (the glass used being a Ross of 1200 diam. magnifying power) to be due to the presence of swarms of bacteria. The tubes in the case remain as clear as when first filled up to the present time. The capacity of the box was 1666 cubic inches; and this quantity of air would be freely changed through the bent tubes as the temperature in the laboratory varied. As this is a good sample of the majority of the experiments, we shall now give a short list of them, mentioning the number of tubes and results. Some modification in the nature of the chamber was made from pecuniary considerations; but as these could in no way affect the results, and our space is limited, we shall not describe them further. The tubes in the cases we shall in future speak of as "protected," those out in ordinary atmosphere as "exposed."

Exp. 2.—Three tubes protected, three exposed; same result.

Exp. 3.—Mutton infusion. Six tubes protected, all remained unaltered; those exposed all putrefied and swarmed with bacteria in three days. One of the protected tubes was infected on November 14 with some infusion prepared on the 12th; it was turbid in two days, and full of organisms.

Exp. 4.—Three exposed, three protected; same result; yellow-green pigment developed in exposed tubes.

Exp. 5.—Beef infusion. Three protected remained unaltered; three exposed were hazy in one day, and green and full of bacteria in two.

Exp. 6.—Haddock infusion. One of the protected tubes in this case became turbid and full of life after remaining pure for three weeks. The box had been moved and probably some particle shaken into it. Two of the others were then purposely infected, one with a very minute quantity, and one with much more; both became diseased in the same time, and apparently to the same extent. Professor Tyndall calls attention to this experiment, and what we see in vaccination.

Exp. 7.—Turnip infusion. Six exposed to one of these; a little distilled water was added, the result being a more active development of smaller bacteria; the other five containing larger organisms with more sluggish motions. Six protected remained pure.

Exp. 8 *and* 9.—Each three protected; each three exposed. Some of the latter developed mould, which soon destroyed the bacteria, apparently by forming a thick pellicle and depriving them of oxygen; one developed bacteria with bright yellow-green pigment, and these seemed to conquer the mould and were alive long after all the bacteria in the other five tubes were dead. A similar contest was observed on several occasions between the mould and bacteria. At the end of thirteen days the back panels of these cases were removed, and the contents of the protected tubes examined microscopically, but no trace of organisms could be found; in four days more they were all muddy and full of bacteria. "The access of matter was the only condition necessary to the production of life."

Another chamber with six tubes was opened at this time and the first tube contents were found microscopically clear, but the succeeding ones were found swarming with organisms. Here was a failure—a case of spontaneous generation? No; it was found to be from using a pipette in which a small drop of fluid had been left after previous use.

The same chamber was cleaned and re-used, and the six tubes introduced remained clear. (This reminds one of the cleaning of an infected hospital ward. Rep.)

Exp. 10.—Hay infusion. Result perfect.

Exp. 11.—Sole infusion. Result perfect; pigment bacteria destroyed mould in exposed tubes.

Exp. 12.—Liver infusion. Result perfect.

Exp. 13.—Hare infusion. Result perfect.

Exp. 14.—Grouse infusion. Result perfect.

Exp. 15.—Pheasant infusion. Result perfect.

Exp. 16.—Rabbit infusion. One of the protected tubes in this case developed some pencillium tufts, but it was explained by a defect in the case, which was observed to allow escape of steam during boiling of the tubes, and consequently allowed ordinary air to enter.

The numbers given are merely placed here for convenience, and are not any arrangement of Professor Tyndall's; a large number of similar experiments were made with salmon, hop, tea, cod, herring, and mullet, with the same results. One experiment with coffee appeared to fail, but the failure was explained by the pipette having been left in contact with the side of the tube, and the coffee having boiled up over its end and remained in contact with some of the condensed vapour, which had trickled down the outside of the pipette.

Professor Tyndall here mentions another method of boiling the fluid, which he adopted in some of the experiments, viz., by passing into the fluid in the tubes two copper wires connected by a platinum coil at the bottom of the fluid and with a battery.

Professor Tyndall, by the foregoing experiments, claims to have demonstrated that "the power of developing bacterial life by atmospheric air and its power of scattering light go hand in hand."

He then deals with the size of the particles floating in air, and points out that it is demonstrable that there are particles which act on light and are yet ultra-microscopic. He states that he has never succeeded in finding, with the aid of the microscope, actual bacteria in the air, and he suggests the extreme probability that their germs are invisible (*i.e.*, ultra-microscopic), and affirms his belief that if we could cultivate them we should find them as distinct as we find our ordinary plants raised from seed.

He confirms Dr. Bastian's experience, that neither bacteria nor their germs can survive the temperature of boiling water, but contests his assertion that "boiled turnip or hay infusions exposed to filtered or calcined, or withdrawn from, air, will still develope organisms."

He gives experiments in support of his view with air filtered through cotton-wool, calcined or withdrawn after the boiling of the tubes, and with results exactly similar to those obtained by his other experiments, the only exception being with filtered air when one of the tubes boiled over on to the resinous material cementing the tube; a patch of pencillium developed, and when the air was changed it spread its spores into a tube of hay infusion, two tubes with mutton and turnip infusion in the same case remaining clear for another month and then becoming infected.

He then gives the result of an enormous number of experiments with hermetically sealed tubes with all kinds of infusions, no single failure occurring; and again, therefore, we find him at variance with Dr. Bastian.

In some of these experiments he detected the presence of ultra-microscopic granules by the behaviour of the infusion to light—viz., in oyster and potato infusions. Even these, which no ordinary filtering removed, he found subsided with a few weeks' quiet—just as the atmospheric particles do.

He also points out a fallacy in some of the beautiful experiments published by Dr. Roberts, of Manchester, in the *Philosophical Transactions*, 1874,—in that he plugged the necks of his flasks with dry cotton-wool, which always contains germs.

He concludes by some interesting experiments with large trays, contrived so as to expose a great number of tubes at once, and shows maps of the results; the main points of interest being the differences of colour, the period of latency, and the apparent travelling of the germs in "clouds." Of 100 tubes sent to friends in various places around London, not one escaped infection of some kind, but temperature was seen to exercise an influence on its rapidity of onset and progress.

He also makes some interesting observations on the action of bacteria upon a beam of light and the fluorescence of infusions; but as we have already exceeded our space, we must bring this brief account of his researches to a close, trusting that enough has been said to show their great value, and make the profession look out anxiously for their publication *in extenso*."

Dr. Duchenne (de Boulogne).—Many of our readers may like to be apprised that the December number of the *Archives Générales* contains by far the best account that has yet appeared of the scientific services of this eminent and much regretted *savant*. It is written by Prof. Lasègue and Dr. Strauss, and but for its length we should have much pleasure in transferring it to our pages, as a very complete and instructive exposition of Duchenne's physiological and pathological researches, and the advances in medical science which these have led to.

Professional Examinations.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates for the diploma of membership of the Royal College of Surgeons on Friday, the 21st inst., viz.—1. Describe the several relations of the brachial artery, and of the veins and nerves in front of the elbow-joint; and state where and how you would perform venesection at this part. 2. Give the relations, having surgical importance, of the urinary bladder in the male, under various modifying conditions. 3. What are the usual causes, the local indications and symptoms, of acute phlebitis? State how you would treat such a case, and what are the pathological changes in and near the vein which are likely to occur during its progress. 4. What are the varieties of cataract? how are they distinguished from each other? and to what pathological changes are they due? 5. Describe the two most frequent dislocations of the shoulder-joint; and state how they may be distinguished from each other, and from other injuries about the joint. 6. Under what circumstances, and with what attendant symptoms, is the use of the trephine justifiable in injuries of the head? Describe the operation of trephining; and mention its risks, both immediate and remote. Candidates were required to answer at least four (including one of the first two) out of the six questions. The following were the questions on the Principles and Practice of Medicine submitted to the candidates on Saturday, the 22nd inst., viz.—1. Describe a case of rheumatic fever, mentioning the complications which are most apt to arise; and state how you would distinguish them and treat them. 2. What is meant by tactile vibrations or vocal thrill? and what are the modifications which the sign undergoes in disease? What is understood by crepitation, bronchial respiration, pectoriloquy, ægophony, and metallic tinkling? and what are the conditions upon which those several signs depend? 3. Mention the preparations of iron, zinc, and arsenic contained in the Pharmacopœia; and state for what purposes and in what doses they are severally used. Write a prescription for a mixture to assist expectoration and relieve cough. The body of the prescription to be written in Latin in full, the directions in English.

MENTONE.

(*From our own Correspondent.*)

In my former letter (vide *Medical Times and Gazette*, Dec. 4, 1875, p. 633) I spoke chiefly of the precautions which invalids should observe in travelling from England to the South of France; in the present letter I shall speak particularly about Mentone from the point of view of an invalid. And first let me say a few words about the position of the town and suburbs of Mentone, as without some knowledge of this it will be impossible to make it clear why, in selecting an hotel, it is not a matter of indifference which one is chosen. Supposing, for simplicity's sake, we arrive at Mentone by carriage from Nice, as in the old days before the railway was opened: we have to pass, before reaching the town itself, for nearly a mile over a level road which runs at a short distance from the sea on the right, and is flanked at varying distances by the spurs of the hills on the left. Between the road and the sea are scattered at intervals, which gradually become closer as we near the town, villas and hotels; and on the north side there are again villas enclosed by gardens. These latter, however, are too expensive for any but the wealthiest class of visitors, and need not detain us further. About a quarter of a mile from the town, the hills, which before were comparatively close to the road, recede very considerably, and leave a wide space, which is occupied by houses and gardens; and far in the background, like a sheltering wall, is seen the mountain range to which Mentone is so much indebted for its mild climate. At this point the road crosses the bed of one of the two torrents which find a vent near Mentone, and we look northwards up the valley of Borigo, a favourite promenade for invalids at the season of easterly winds. From the bridge over this torrent the carriage-road to Mentone divides, and we can either reach the town by keeping straight on, and passing behind a number of hotels and pensions, until we enter the main street proper; or else we can turn to the right, and drive close by the sea, with the sun on our right and the houses on the left, along the Promenade du Midi, which is about half a mile long, and stretches nearly to the tiny harbour, or port, beyond the centre of the old town. Whichever road we take, we have, just before we enter Mentone, to cross, by a short suspension bridge, the second torrent—the River Carrëi—which issues from the so-called Turin Valley about a quarter of a mile from the shore, and flows due southwards into the sea. The Turin Valley plays an important part in the formation of the climate of the West Bay—the name ordinarily given to the western suburb of Mentone—first, owing to the circulation of air which it permits; and, secondly, because its eastern and south-eastern slope, as it widens out, protects the numerous hotels and villas which lie at its base from easterly and north-easterly winds. If we now leave the West Bay, and drive from end to end of the real town of Mentone (the old town), we only pass through one long and rather narrow street, very sunless, draughty, and not over-clean. The houses on either side are chiefly shops, but several hotels have their carriage-entrance here. The best thing an invalid can do is to keep out of this street as much as possible. Unfortunately, as the Promenade du Midi is not continued in front of the whole length of the town, everyone who has to go to the second suburb of Mentone—the East Bay, in which several of the oldest and best hotels are situated—must pass through a portion, and that the worst portion of it. The East Bay, which we now enter, has a completely different character from the West Bay. The sea runs much further up into the land, so that the carriage-road skirts the shore in nearly a semicircle, instead of in a very shallow curve, as it does in the West Bay: and it is squeezed in, so to speak, between the hills and the shore, so that on its inner side there is but scanty space left for houses, especially towards the west. Owing to this nearness of the hills, which are not intersected by valleys or torrents, and to the fact that the eastern side of the bay is protected by a huge mass of bare and precipitous mountain (the Berceau), which sends its spurs almost into the sea, the East Bay is unusually sheltered, perhaps more so than any similar indentation on the north shore of the Mediterranean. The temperature of this bay is also higher than that of the West, owing to the reflection of the sun's rays from the limestone rocks by day, and to the heat which they absorb by day and give out gradually at night. There is also less motion in the air on this side of Mentone, though at times the south-east wind makes itself felt pretty severely on the western side of the bay, especially at the turn of the road which leads into the town. Although the East Bay has much to recommend it, owing to its picturesqueness and its sheltered situation, yet it has its drawbacks. In the first place, when the sun is shining brightly, the heat and the glare of the sea are very oppressive, and have a relaxing effect on many people. Then, the only walk for invalids is by the side of the carriage-road, which is, except for a short time after rain, very dusty, and along which there is a good deal of traffic. Another drawback arises from the aspect of the parts of the bay in which the hotels are, namely, the western and central portion—for while the morning sun pours down with even too great fervency on them, the afternoon sun strikes the windows so obliquely as scarcely to enter the rooms; and further, owing to the mass of houses which form the boundary of the extreme western portion of the bay, and which rise immediately from the carriage-road on the steep side of a small hill, the sunlight is completely cut off comparatively early in the afternoon in midwinter, and the buildings in the western part of the bay are in shade when the sun is still shining brightly on those along its eastern shore. Lastly, nearly all the best hill excursions have to be commenced from the West Bay, and the railway-station is also in the latter, so that in both cases invalids are compelled to pass through the cold and draughty town. In spite of its drawbacks, however, the East Bay suits some persons best, just as the West Bay does others. Where a warm, rather close, sheltered situation is necessary, the former is to be recommended; and where free movement of air and a bracing climate are essential, the latter. Those who, after trial, find either disagree, can in the first month or six weeks of the season easily change from one to the other. Later on in the middle of the season, when the hotels are full, good south rooms are not easy to find vacant. We can now pass on to speak more in detail about Mentone life.

An invalid who means to spend the winter at Mentone has first to decide whether he will live in a villa or in an hotel. The number of villas has much increased in the last four or five years, and they are to be met with of all sizes. They are chiefly situated in the West Bay, on the north side of the Nice road, and on either side of the Carrëi torrent, for some little distance up the Turin Valley. A few have been built on rising ground from fifty to a hundred feet or more above sea-level. This is true of some of the newest, which stand a few hundred yards behind the railway-station. Most of the villas are let furnished. The occupier has to provide his own servants, and to enter into a number of engagements with regard to furniture, crockery, and other household requisites, which do not increase the mental comfort of an invalid. On the other hand, he enjoys more privacy than he would in an hotel. He has his own garden to sit in, is not forced to take his meals at other people's times, and if he has his family about him, he is able more or less to retain the domestic character of his home life abroad. The price of villas varies from 1000 to 4000 or 6000 francs for the season. Flats containing three or four living-rooms, with a small kitchen and a servant's room, can sometimes be taken for about 1000 francs the season. On the whole, for the majority of invalids, hotel life seems the most to be recommended. For a fixed sum per diem (about six to eight francs) the Mentone hotels provide you with three substantial meals, breakfast consisting of coffee, chocolate or tea, and bread-and-butter; luncheon or *déjeûner* (at twelve or one o'clock) consisting of eggs, hot and cold meat, cheese, and dessert; and dinner at six or half-past—the regular *table d'hôte* dinner with which most people are acquainted. It is usual for breakfast to be taken separately, but at luncheon and dinner all who are not confined to their rooms are expected to sit down together. Meals at other times than the *table d'hôte* hours are charged extra, since they involve more trouble to the waiters. Wine and beer are nearly always extras, and the prices charged for them are often exorbitant. Three francs are asked for a bottle of very indifferent *vin ordinaire*, and a quart bottle of English stout or pale ale costs two or two francs and a half. The *table d'hôte* system relieves the monotony of hotel life by bringing people together, but for invalids it is far from being an unmixed good. Especially in

the evening, persons must leave their warm rooms and go through chilly passages, and up and down draughty staircases, in going to the dining-room; and on leaving it, matters are still worse, owing to the excessive heat caused by the gas and the want of proper ventilation, which makes the contrast between the temperature of the room and of the passages still more marked. For this reason invalids should take a shawl with them to put on when they leave the dining-room. By this precaution many colds may be avoided. To some persons the number of dishes, and the length of time which the meal takes, are an objection to the *table d'hôte*, but a little experience enables a choice of food to be made without taking everything handed, and it is always possible to leave the table early if desired.

Probably the majority of the people who visit Mentone adopt the French custom of using one room as bed and sitting-room. Private sitting-rooms exist, of course, in all the hotels, but they are too expensive for any but those with large means. A public reading-room or *salon* is universal, and English and foreign papers are always provided with greater or less liberality, according to the hotel. For those who play, there is generally a piano in the *salon;* and at some hotels there is a small library of works of fiction. For my own part, I should strongly advise invalids to frequent the *salon* as little as possible in the evening, unless the ventilation is better than it has as yet been my fortune to find it. When an hotel is full, the size of the room is disproportionately small compared with the number of people who use it; and the gas and overcrowding make the atmosphere very injurious. It cannot be denied that sick persons are often their own enemies as far as ventilation is concerned in these cases, for they insist on all windows and doors being shut, in a way that would startle a medical officer of health; and in this respect foreign invalids, and especially Germans, are tremendous offenders. There is, no doubt, a great temptation to those who are fond of society to join the social circle in the *salon;* but the risk is not worth the consequences which it may entail. The daily life of a visitor to Mentone does not require a very elaborate description. As most invalids are impressed with the idea that they are to be out of doors as much as possible here, whenever it is fine and the sun shines—which, this winter at least, has been a frequent occurrence—all but those who are seriously ill find their way into the open air. In the morning the hours of exercise are from ten to twelve or one o'clock; and in the afternoon the traditional time for getting indoors is about half-past three; after four only the healthy remain out. The most favourite mode of taking the air is, probably, that of walking by the sea on the Promenade du Midi, in the West Bay, which runs from east to west. This promenade, which has been already spoken of, is provided with a fair number of seats which face the sea, and are sheltered from the prevailing northerly breeze by the houses at their back. At the centre of the promenade is the so-called Jardin Anglais, a small and badly kept wilderness of trees—English in nothing but its name, but which affords shade and protection from the sun in the hottest hours of the day; and the seats placed in it are therefore often occupied. In the afternoon the western sun is sometimes rather unpleasant, so that some persons prefer to get more inland; and the walks on the eastern side of the Borigo and Turin valleys are then much frequented. Those who like driving will find at Mentone very comfortable one- and two-horse carriages, both open and closed, and the prices being regulated by tariff are not exorbitant. A one-horse carriage costs 1 fr. 75c. an hour, and a two-horse 3 fr. 50c. A simple drive from one part of Mentone to another costs 1 fr. 25c. for a one-horse carriage, which is equal to a shilling cab-fare in London. For long excursions an arrangement has generally to be made with the driver. There has been a great improvement in the matter of carriages, and also in the behaviour of the coachmen, since I was here a few years ago. There are, unfortunately, not many available short drives round Mentone, and most people content themselves with driving along the shore from one bay to the other. This involves passing through the town, and incurring the risk of draught and cold shade. Invalids who drive in open carriages require plenty of wraps, and they should carefully avoid days when there is much wind. When long drives are taken, it is very important to arrange so as to be home again before sundown. Those persons who can neither walk nor drive can hire very comfortable Bath chairs. For excursions up the hills, capital donkeys can be procured. These animals, being trained to carry wood and heavy loads to and from the neighbouring villages, are very strong and sure-footed, and by their assistance invalids can reach many picturesque spots which would be otherwise quite beyond their power.

(*To be continued.*)

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At the meeting of the Hunterian Society at the London Institution on the 12th inst., Professor Wanklyn read a paper entitled "Milk Analysis from a Physiological Point of View." Having referred to the high degree of accuracy with which milk-solids could be determined when proper precautions were taken, he insisted on the great constancy of the "solids not fat," which are determined by first taking the total milk-solids and then washing out the fat by means of ether. According to Professor Wanklyn, the "solids not fat" amount to 9·3 per cent. of the milk, and never fall sensibly below that figure. In rare cases there appears to be a little increase in the solids not fat, and this is accounted for on the supposition that in pathological states the capillaries of the mammary gland become too easily permeable, just as in certain pathological conditions the vessels in the kidney become too permeable, and let albumen pass through their walls. An interesting fact was elicited during the discussion. The solids not fat consist of caseine, milk-sugar, and ash; and in those instances in which the caseine is abnormally high the milk-sugar is found to be depressed, thus very nearly maintaining the constancy of solids not fat. In cases of foot and mouth disease the milk was found to have a great tendency to ferment, but otherwise nothing remarkable had been noticed on submitting it to analysis.

FROM ABROAD.

Prof. Bouchut's Cerebroscopic Review for 1875.

Prof. Bouchut, in pursuance of the plan he has adopted since 1862, of bringing before his pupils the great utility of the ophthalmoscope in the diagnosis of diseases of the brain and spinal cord, has just published (*Gaz. des Hôp.*, January 1) what he terms his "Cerebroscopic Review for 1875"—*i.e.*, a recapitulation of the various cases in which he has found it useful.

"It comprises cases of tuberculous meningitis, typhoid meningitis, diphtheritic encephalitis, encephalitis (whether simple or from cerebral tumour), thrombosis of the sinuses of the dura mater, cerebral œdema in the eclampsia of albuminuria, chronic hydrocephalus, myelitis, cerebro-spinal sclerosis, etc. In all these cases there has been, according to the disease, optic neuritis, neuro-retinitis, punctuated choroiditis, tubercles of the choroid, or papillary atrophy. As I have long since pointed out, special laws regulate the appearance of these lesions, which differ in the meningites, in simple encephalitis, in tumours of the brain, and in diseases of the spinal cord. 1. The cause of intra-ocular lesions may be *mechanical*—thus, when clots have formed in the sinuses of the dura mater, or in the meningeal veins, the blood of the veins of the retina cannot re-enter the cranium. From this there result hyperæmia of the papilla, peripapillary serous suffusion, and dilatation and flexuosity of the veins of the retina, with hæmorrhages and thrombosis of those veins. This is the case in all the tubercular and typhoid meningites; or if there is serous effusion in the arachnoid, descending by the sheath of the optic nerve, and compressing this nerve, the papilla becomes swollen within the sclerotic ring, and forms what is termed 'strangulated neuritis.' The compressed central artery of the optic nerve ceases to be visible in the fundus of the eye, a white exudation forming on the papilla, which completely conceals it. The veins of the retina are dilated and flexuous, disappearing in part, and producing by their rupture small disseminated hæmorrhages. This is observed in a certain number of cases of meningitis, and in some partial encephalites. 2. The ocular lesions may be the result of a *descending neuritis*. Hyperæmia and inflammation of the cerebral substance in the vicinity of the origins of the optic nerve may descend along the whole length of the nerve, and reach the fundus of the eye, where they are revealed by simple or exudative neuritis, which after a while may lead to papillary atrophy. 3. The third law relates to *reflex or sympathetic neurites*, as when optic neuritis and papillary atrophy are due to diseases of the spinal cord, as myelitis, sclerosis, locomotor ataxy, and chorea. The diseases of the cord act upon the origins of the sympathetic which are connected with the first dorsal nerves; and by the intermedium of this nerve they first induce hyperæmia of the papilla, under the influence of which there eventually takes place a connective proliferation of the optic nerve, compressing the nervous tubules, and leading to papillary atrophy. In this way atrophy of the optic nerve takes place in the last stage of ataxy. 4. There are also *diathesic* intra-ocular lesions, which give rise to scrofulous neuro-retinitis, as well as to syphilitic and tubercular choroidites.

"Now, in order to establish that these facts are not simple illusions on the part of the observer, I have shown you that by means of histology we find in the optic nerve and the choroid the lesions observed during life. I have demonstrated in neuritis the altered condition of the nervous tubules, which have become granular and varicose, having in their midst an enormous quantity of connective tissue, which compresses them and causes their atrophy. I have also exhibited tubercle of the choroid under the form of masses of agglomerated embryonic cells undergoing the process of granular-fatty degeneration; and around these tubules there is atrophy of the pigmentary cells of the choroid, which gives to the fundus of the eye the peculiar whitish, punctuated appearance which is never seen except in general tuberculosis."

Transfusion of Blood in the Insane.

There have been several trials of this made at the asylums in Italy, and Dr. Alfred Voisin, in the *Gazette des Hôpitaux* for December 21, gives an account of a case so treated by him at the Salpétrière.

Chronic insanity in its simple form, he observes, may at last,

in consequence of insufficient alimentation, give rise to a kind of slow inanition and a changed condition of the blood, which shows itself by pallor, transparency of the skin and mucous membranes, flaccidity of the muscles, œdema of the extremities unaccompanied by albumen, a special odour of the breath and skin, an appearance of languor, and the production of eschars on the sacrum and elbows. The blood of such patients exhibits changes which consist in a greater paleness when seen issuing from a prick of the finger, and sometimes in the separation of the drop of blood into a clear and coloured portion. Under the microscope the mass of the globules is found separated into islets, surrounded by clear spaces, and without any increase in the number of the white globules.

This secondary morbid condition usually resists all treatment, the patient gradually getting worse until the formation of eschars leads to his death. After having witnessed such a termination, Dr. Voisin resolved to give a trial to transfusion. The first patient upon whom it was performed was not a fair case, as numerous eschars had already formed, which soon proved fatal; but the second case occurred in a woman forty-one years of age, the subject of profound suicidal melancholia, with indisposition to eat, and whose blood exhibited the appearances above described, and which are a sure sign of the imminence of eschars. By inadvertence, twenty grammes of human blood were injected into the cellular tissue at the bend of the elbow, instead of into the vein, producing a considerable thrombus. This soon subsided, and in a day or two afterwards eighty grammes of blood were thrown into the median vein. The success was remarkable. Even the injection into the cellular tissue led to a diminution of the œdema and obstinate constipation, while after the injection of the eighty grammes, which was borne without inconvenience, these two conditions disappeared at once, while the patient soon recovered her appetite, and from being indisposed to move at all, was found willing to walk out of doors. Her mental condition was still the same; but her improved health enabled her to take morphia in much-increased doses; and under the use of this she has lost all disposition to suicide, is able to attend to her domestic duties, and has recovered her appetite. Dr. Voisin believes it is only in the direction of its influence on the bodily health, and not as a curative agent in insanity, that good is to be looked for from transfusion.

At a meeting of the Paris Société de Médecine (*Gaz. des Hôp.*, January 13), Dr. Voisin stated that he had then two patients under treatment by injecting forty-five or fifty grammes of sheep's blood into the cellular tissue at intervals of some days, having been induced to pursue this practice, not only by the advantage which had ensued upon the accidental injection related above, but also by the fact that it had been recommended by several practitioners who had tried it. The cases, at the time of the report, were still under treatment, but decided advantage had followed the procedure, giving reason for hopeful expectations.

Preservation of Vaccine Lymph.

At a recent meeting of the Istituto Lombardo di Scienzi (*Gazzetta Med.*, January 1), Dr. Roncati read a note on his mode of preserving vaccine lymph during long periods in a liquid and active condition. After alluding to the failure of the various means that have been hitherto employed, he thus describes the plan which, after numerous trials, he has adopted. Taking an ordinary capillary vaccine tubule, he half fills it from a mature pustule, this being done to economise the lymph, so that another tubule may be charged from the same pustule. This tube, after having had its ends secured by sealing-wax, is placed inside the barrel of a goose-quill, which is then filled with the finest dry sand—that which is used to dry writing with, and which every penman in Italy has close at hand. The quill is also secured by sealing-wax, and then placed in a small phial, which is also filled with the sand, corked and sealed. The operation is conducted as rapidly as possible.

Lymph so prepared on October 30, 1874, was employed on April 20, 1875 (*i.e.*, at the end of 173 days), for the vaccination of an infant, and from seven punctures that were made, seven magnificent pustules were produced, exactly as in arm-to-arm vaccination. From these, sixty infants were vaccinated and two tubes were charged for future use, two of the pustules being left intact. A more brilliant result, the writer justly remarks, could scarcely have been obtained. In order to answer the question whether the lymph would have stood the ordeal of the great summer heats, Dr. Roncati vaccinated two infants on September 16 with lymph which had been preserved since April 20, and of five punctures made in each, only one proved successful. This, however, was a very fine pustule which yielded the lymph which was required for the autumnal vaccinations. Although this amount of success seems small, the characters of the pustule, and the results of the employment of its lymph proved that it was quite genuine, some accidental circumstances having limited its efficient action. These probably arose from the fact that the lymph was taken only at the end of the eighth instead of the seventh day, and that it was kept in a damp cupboard. Even supposing these explanations do not hold good, the most that could be said would be that the procedure does not succeed so well in the hot as in the temperate or cold season; and in this case additional means of conservation might be employed—as that of adding pure glycerine, as recommended by Poli and E. Müller (vide *Med. Times and Gaz.*, October, 1871, page 503; and June, 1872, page 731). Or a minute quantity of a concentrated aqueous solution of tannic acid might be introduced before the lymph into the tube.

As regards the explanation of the *modus operandi* of his procedure, Dr. Roncati observes that its success cannot be due to the exclusion of air, for he, as well as others, have often found that lymph hermetically sealed and entirely deprived of air has failed; while also his own tubes, being only half full, do contain air, which also the finest sand does not exclude the access of. Still, the obstacles that are placed to a free access of air may aid in preventing decomposition. Preservation from external humidity is not her means by which the sand may act; but perhaps the least uncertain of its modes of operation is the low temperature secured by its contact. One has only to pass the hand into this fine sand at any season of the year to appreciate the agreeable coolness it produces.

The funeral of the late Mr. Gascoyen will take place this day (Friday) at Kensal-green Cemetery, leaving his late residence in Queen Anne-street at half-past twelve.

The Medical Faculties of Strasburg and Paris.—An exaggerated statement having gained publicity, that 1,000,000 fr. are annually devoted to the Medical Faculty of Strasburg, and, contrasting this with the parsimonious donation of the Paris Faculty, the *Gazette Hebdomadaire* (January 21) states that it has ascertained the facts of the case. The 1,000,000 fr. are for the entire University, consisting of its six faculties, the Medical Faculty receiving 329,405 fr. of this sum, of which sum the professors receive as salaries 144,160 fr. And the University of Paris with its six faculties receives a higher sum than does that of Strasburg, its Medical Faculty also receiving for its professors and *agrégés* 351,000 fr. (The German professors, however, in addition to their salaries receive the students' fees, which in France are made over to the State, which realises a handsome surplus after paying the professors.) By a recent decree the salaries of Professors of Faculties of Medicine and of Science have been fixed at 13,000 fr. for Paris, and at from 6000 fr. to 10,000 fr. in the departments; and the salaries of *agrégés* at 4000 fr. in Paris, and 3000 fr. to 3500 fr. in the departments.

Complicity with Charlatanism Punished.—The French tribunals have for a long time applied to *clairvoyants* and other charlatans the penalties to which those who practise medicine illegally are liable, and these have been sought to be evaded by the somnambulists, who were well enough in repute to be able to keep a doctor in their pay, by employing him to transcribe and sign their prescriptions; and it seems that there are a certain number of these traitors willing thus to get their bread. This fraud is now exploded, for one Allard, who had been condemned as the accomplice of two somnambulists to a fine of $3\frac{1}{2}$ fr. in 458 cases, having appealed to the Court of Cassation, this body delivered the final judgment that a practitioner must be considered as a conjoint in an illegal medical practice, when, in place of treating a case himself, he abdicates his position and adopts the prescriptions of a charlatan—his intervention being, in fact, but a culpable artifice intended to cover with his name and signature the illegal practice of another. This judgment is also of great importance by authorising the interpretation of the law adopted by the lower courts (at the instigation of the law advisers of the French Medical Association), by which every separate infraction may be punished, so that the accumulation of even small penalties may amount to an important fine.—*Union Méd.*, January 22.

REVIEWS.

Medicinal Plants: being Descriptions, with Original Figures, of the Principal Plants employed in Medicine, with an Account of their Properties and Uses. By Robert Bentley, F.L.S., Professor of Botany in King's College, London, Professor of Botany and Materia Medica to the Pharmaceutical Society of Great Britain, etc.; and Henry Trimen, M.B., F.L.S., Department of Botany, British Museum, and Lecturer on Botany at St. Mary's Hospital Medical School. London: J. and A. Churchill.

It is with sincere pleasure we welcome a work such as the above-named, portions of which now lie before us, and which is a real and important addition to the scientific side of English medicine. Our works in this country, when not purely practical, are apt to be weak in their science, and their authors to take a good deal of it at second hand; but in the work before us there is less of this than in almost any similar book we could name, more especially considering the nature of the subject. All the plates, which are most beautifully executed and coloured, are taken from the actual objects. These, as far as possible, have been specimens grown either naturally or artificially in this country, especially at Kew Gardens. When such were not to be obtained in the requisite perfection, drawings have been made from dried specimens in the British Museum. Nor have the specimens selected been limited to illustrations of the British Pharmacopœia; others are included in the programme which belong to the American and Indian Pharmacopœias—a circumstance which will undoubtedly enhance the value of the fully completed volume.

At the present moment, four numbers have made their appearance, but these already represent a wide field of botanical study, for no definite order has been pursued, and the parts published are merely potential, being, in point of fact, intended for separation and rebuilding up in definite order. The letter-press referring to the botanical characteristics, the medicinal parts and uses of the various plants, is also very good. It is really by such a work as this and that of Hanbury and Flückiger that medical botany and pharmacology should be studied. Such subjects are better banished as far as possible from medical students' books.

Lectures on Dermatology. Delivered in the Royal College of Surgeons of England in 1874 and 1875. By Erasmus Wilson, F.R.S., F.R.C.S., etc. London: J. and A. Churchill, New Burlington-street. 1875.

These lectures are a continuation of those delivered by Professor Wilson in 1870-73, which have been already published, and they deal with the new growths which affect the skin, including lupus and epithelioma; with the atrophic affections, under which the author includes ichthyosis, morphœa, and scleriasis or sclerema; with the hypertrophic affections, such as warts, corns, elephantiasis, and cheloid; and, lastly, with the neurotic or neuropathic affections, including pruritus, prurigo, and other perversions of nervous function. The method which is adopted by the lecturer of referring to the different preparations in the dermatological collection of the College of Surgeons, without in all cases fully describing them, will, we think, make the work more valuable to those who can take the book to the museum, and there, as Professor Wilson says, "compare the description of the disease with the object itself," than to persons living out of London. The remarks on treatment must, however, be universally acceptable; for example, the most excellent remarks on the management of struma and lupus in the lectures of 1874.

Putting aside, however, the somewhat discursive form in which these lectures appear, they contain a very large amount of valuable information. Early in the first course a summary of the gratifying results obtained in leprosy by the use of the Gurjun balsam, and of Professor Wilson's own experience of it, is given. Later on we have the author's latest views on morphœa and scleriasis, with some good illustrative cases; and towards the end of the book he enters fully into the subject of the so-called "neurotic excoriations" and hæmorrhages, which occur not only in hysterical women, but also (so it appears) in sensible people with well-balanced minds. Reference is made to the case of Louise Lateau, the Belgian enthusiast, whose sufferings and bleedings Professor Wilson is inclined to regard as genuine.

One or two points in the lectures before us call for a word of comment. Will Mr. Wilson's classification of ichthyosis under atrophic affections of the skin really stand? He admits that the changes which Neumann finds microscopically are rather those of growth than of atrophy, and also that there is "excess and accumulation of epithelial matter"; but, true to his idea of the necessary co-existence of "feeble vitality and nutrition of the skin" as the cause of this condition, he ignores the anatomical peculiarities of the disease as one of the elements on which his classification should be founded.

Secondly, it strikes us as somewhat extraordinary that under the description of prurigo senilis (page 189) there is no mention of its almost invariable dependence on the presence of pediculi vestimentorum. Mr. Wilson speaks of it as if it were invariably of purely neurotic origin, a subjective sensation due to causes existing only within the individual. If he is correct, there exists among the upper classes of society a disease which in the out-patient practice of hospitals and dispensaries does not exist. The prurigo senilis of the ordinary out-patient is, whether he be well dressed or shabbily dressed, due to the irritation of lice. They can be found if looked for, or else conscientious patients will admit their existence. The knowledge of this fact is of so much importance in suggesting the appropriate treatment, and ignorance of it is so likely to give rise to a course of tedious and unnecessary drugging, that we feel it our duty to protest against the purely neurotic theory of prurigo senilis. At any rate, the marks of distinction between the neurotic and parasitic forms should be very definitely pointed out.

Professor Wilson seems to us to have rather hurried over the last lecture for 1875. He gives no hints for treating pruritus, and barely alludes to the subjects of hyperæsthesia and anæsthesia. On the whole, however, in spite of these slight defects, the lectures are a valuable addition to the literature of dermatology, and their veteran author deserves our best congratulations. The publishers deserve great credit for the way in which the book has been turned out, and the print has the supreme recommendation that it does not try the eyes.

Diseases of the Nose and its Accessory Cavities. By W. Spencer Watson, F.R.C.S. Eng., B.M. Lond. London: H. K. Lewis, Gower-street. 1875.

That a volume of more than 470 octavo pages should be devoted to so limited a field of surgical inquiry as the diseases of the nose will probably surprise most readers, and perhaps alarm some of those who deprecate the growing tendency to "specialism" amongst English surgeons. We confess to having had a misgiving of the kind ourselves when this goodly volume reached us. But the doubt cleared away as we turned its pages. Mr. Watson, attracted doubtless by the interest of a subject to which he has devoted so much laborious attention, appears to have sought to render his work as complete as possible, by omitting nothing which the most captious critic might consider as forming part of the subject. We have therefore, to commence with, a tolerably complete review of the anatomy and physiology of the nose; and in the course of the work, special chapters are devoted to diseases of the frontal sinuses, glanders, the antrum of Highmore, the lachrymal sac and nasal duct, the diseases which may chance to disfigure the skin covering the nose, and even the relation of the function of smell to hygiene and sanitary science. About eighty pages are occupied by an excellent appendix of cases, in which no undue prominence is given to those under the author's care, and which therefore forms a valuable practical treatise in itself. But if we limit ourselves to the chapters treating of the diseases, injuries, and deformities of the nose proper, we find that 160 pages alone out of the whole 470 suffice to include this most essential portion of the subject.

We are not sure, therefore, that the author has been quite wise in so freely enlarging the natural boundaries of his subject. If the size of the volume deters surgeons generally from undertaking its perusal, a valuable contribution to surgical literature will be passed over, and the book fail to make its proper mark. We have been induced to make these comments in the hope that the author may see his way at some future time to the production of a greatly more condensed and therefore more practically useful work to the busy practitioner. Meanwhile, with this elaborate treatise at hand, no surgeon will have much trouble in learning all that has been written upon anything which can with the most generous latitude be styled a disease of the nose.

If the pathological sections are carefully written, the practical instructions are no less conscientiously minute. The treatment of that common and troublesome affection, nasal polypus, is very fully described. Our own experience, indeed, would lead us to wish that greater stress had been laid upon the use of the snare, as opposed to the common practice of avulsion by forceps, for it is at least as easy to get the noose of wire round the pedicle of the polypus as to seize the same part with the forceps; and it has the great advantage of being an almost bloodless and painless method, whilst the ordinary use of the forceps always strikes us as being singularly rough and unsurgical. As a matter of fact, however, we suspect most surgeons will admit that it is far more difficult to see and secure by any means the stalk of a nasal polypus than would appear from any written description, and that until we have some better means of illuminating and exploring the nasal cavities, we must continue to grope our way, in dealing with these tiresome growths, in the present not very satisfactory manner.

It would need lengthened extracts to give any adequate idea of the care and completeness with which the various subjects considered are treated, and for this we have not space, but, having ventured to criticise the book as unnecessarily voluminous, we are bound to bear our witness to the thoroughly able manner in which the work has been carried out. Modern pathological views are clearly stated, and all the more recent suggestions for treatment are inserted, so that the profession must feel really indebted to Mr. Watson for the painstaking manner in which he has produced for us a treatise which, if it errs at all, errs only in being too elaborate.

Outlines of Human Osteology. By F. O. Ward. Third Edition. London: Renshaw. Pp. 368.

We have here a new edition of the admirable little work on osteology which has so long been a favourite with us. It is greatly improved in general appearance, and is slightly enlarged. We miss, however, what would have been a great improvement—plates suitable to illustrate the text. Plates are perhaps more useful in osteology than in any other department of medical study, but apparently the author has thought it best to dispense with them, and to let the student pursue his studies by the help of the real specimens only. Be this as it may, there can be no doubt but that the present edition of Ward's "Osteology" will continue to merit the praises already so amply bestowed upon it.

A Model Pass-List.—According to the *Annuaire* of the Catholic University of Louvain, Belgium, the examining jury found that of the 489 students who passed their examinations 297 did so in a satisfactory manner, 141 with distinction, and 51 with the highest distinction—not one with whom fault could be found!—*Lyon Méd.*, January 23.

Donations to Hospitals.—By the will of Mr. William Bishop, late of No. 50, Chepstow-villas West, Notting-hill, St. Mary's Hospital, St. George's Hospital, Middlesex Hospital, Charing-cross Hospital, St. Bartholomew's Hospital, the Royal Free Hospital (Gray's-inn-road), the Hospital for Consumption (Brompton), St. Thomas's Hospital, and the Small-pox Hospital are each to receive a legacy of £1000.

Changes in the Intestines from Embolism.—Prof. Biesiadecki, of Cracow, read a paper at the Lower Austrian Medical Society on this subject. He observed that it has been long known that minute emboli of the superior mesenteric artery often give rise to hæmorrhage in connexion with peritonitis: but Dr. Parenski, of Cracow, has recently described other conditions due to the same cause. He relates the case of an old woman, in whose body was found a portion of gangrenous intestine two inches long, and another half this length, which seemed as if they had been separated in consequence of an incarcerated hernia. This, however, had never existed, and the gangrene was found to be due to numerous emboli in the branches of the superior mesenteric artery. Other similar cases had been observed by Dr. Parenski; but in some of these, instead of gangrene of the intestine, there were only ulcers of the mucous membrane, although neither typhoid nor tubercular disease existed. These ulcers sometimes healed, causing considerable stenosis, which in one case led to an operation being performed, under the idea that internal incarceration existed.—*Wien. Med. Zeit.*, December 21, 1875.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 11.

John Marshall, F.R.C.S., Vice-President, in the Chair.

Notes on Pathological Absorption-Spectra.

Dr. Edward Lawton Moss read a paper on this subject, of which the following is an abstract:—Urine absorbs the shorter light waves indiscriminately, but the great range of colour possessed by various urines does not display an equally conspicuous diversity of absorption-spectra, and the complicated chemical colouring matters bring none of their confusion into spectroscopic observations of fresh urine. The spectroscope yields the earliest evidence of the hæmaturia of Bright's disease. The existence of blood bands in the absorption-spectrum of urine gives far more definite evidence than mere smokiness or albuminuria. A case of cirrhosis of the liver supplied a urine which, for the three weeks it was watched, gave a permanent absorption-band not mentioned by Thudichum. It also exhibited a well-defined intense band lying between 1700 and 2100 of Kirchhoff's scale, which became more intense as the urine became staler and more acid, and it suggested the existence in the urine of biliary products. Experiments on the bile of animals and on meconium failed to produce any similar absorption-band, but it was found in normal acid fæces. It disappeared on neutralisation with ammonia, and reappeared on re-acidulation, the substance yielding it seeming to be some free acid. It is soluble in alcohol, but not in ether. These notes seem to show that the application of the spectroscope may decide whether the high-coloured urine of a tropical pyrexia owes its tint to the altered bile of bilious, or the disorganised blood of yellow fever.

Dr. Ord said he was in the habit of using a spectroscope for the examination of urine, and had in consequence, in a recent case, been enabled to detect the presence of hæmoglobin, though only a very small quantity of blood corpuscles could be made out.

Eczema of the Areola of the Breast.

Mr. Henry T. Butlin read notes on the minute anatomy of two breasts, the areolæ of which had been the seat of long-standing eczema. The investigation of these two breasts was made on account of a supposed connexion between chronic eczema of the nipple and areola and cancer of the breast. In each breast was found small cell-infiltration in the vicinity of the galactophorous ducts, whilst the ducts themselves were dilated, and exhibited their lining-epithelium in a condition of proliferation. In each breast the corium and subcutaneous tissue of the areola was the seat of small cell-infiltration. The mucous layer of the epidermis was in a condition of proliferation. In one of the breasts, in an indurated part of the gland, the acini were found dilated and filled with epithelium. The ducts were in the condition above described. Small cell-infiltration of the connective tissue was frequent. No actual cancer structure was discovered.

Dr. D. Powell suggested that it would be interesting to know something of the causes of the eczema in such cases, especially its relation to suckling.

Dr. Thin considered the spindle-shaped elements described by Biesiadecki as normal structures. Certain branched cells, too, in the epithelium of the cornea were readily brought into view by a slight degree of inflammation. Spindle-cells and branched cells also occurred in the ducts of sweat-glands. He thought that, as far as the epidermis was concerned, there was rather a formation of new cells than any distinct proliferation of old ones.

The Chairman insisted on eczema being a possible cause of cancer of the breast, though it did not follow that they were necessarily connected. He had seen one case, but there the eczema seemed to act much as a bad tooth in producing epithelioma of the lip or tongue. In his case, too, there was a strong hereditary predisposition to cancer. It was only by such observations as the present that a true light could be thrown on the subject.

Mr. Butlin, in reply, pointed out that there could be no irritation of the kind indicated by Dr. Powell, since both patients were long past child-bearing. He made use of the

term "proliferation" only to indicate an increase in the number of the cells. His main object was to point out this increase so deep down.

On the Etiology of Skin Disease.

Mr. George Gaskoin read a paper, which tended to show the constitutional character of skin complaints, and the importance of recording the health of the patient's family as well as his personal history. A *rationale* of skin disease is sought for in the hereditary dyscrasiæ, which are rarely absent in the patient's antecedents, and they are generally commutable with it. This is so much the case as to suggest for adoption that law of heredity which is known as "metamorphosis of diathesis." It is well exemplified in pulmonary and arthritic conditions; but, though less recognised, it is here insisted on as found in nervous affections, such as insanity, epilepsy, imbecility, deaf-mutism, and certain abnormalities and deformities. The similarity of results from specific fevers and those of inherited transmission suggest an impairment of vitality as best expressing the nature of skin complaints, which seems to depend essentially on want of vigour in the constitution. Parasitic diseases are mentioned as not excluded from the influence of diathesis, and modern dermatology is accused of too exclusive an attention to the objective phenomena of disease.

Dr. Drysdale said that skin affections were rare in phthisical subjects, and he could not corroborate the statement that the two were interchangeable.

Dr. Powell confirmed this, and said that, except chloasma and sudamina, skin affections were rare in phthisis. When they did occur they were probably syphilitic. In many cases of this there was a marked rheumatic diathesis, and that too without cardiac affection.

Mr. S. Watson thought the author rather referred to skin affections in the progeny of phthisical patients. He had met with many cases of lupus in the subjects of phthisis, or in those come of phthisical parents.

Mr. Waren Tay also said that, directly or indirectly, lupus and phthisis were frequently allied. Psoriasis was undoubtedly hereditary, being often transmitted from generation to generation.

CLINICAL SOCIETY.

Friday, January 14.

Sir William Jenner, Bart., M.D., D.C.L., F.R.S., President, in the Chair.

The eighth annual report of the Council was read by the Honorary Secretary. It congratulated the Society upon its continued prosperity. The number of resident members was now 227; of non-resident, forty-four. During the year, two members (Dr. E. Johnson and Mr. W. R. Warwick) and two honorary members (Dr. R. Adams, of Dublin, and Dr. P. M. Latham) had died. The sums paid to the Honorary Treasurer during the year amounted to £360 14s. 9d., from which had to be deducted an expenditure of £257 4s. 9d., leaving a balance of £103 10s. During the year £47 3s. 9d. had been funded, making a total of £350 3 per cent. Consols possessed by the Society. Sir Thomas Watson and Dr. C. J. B. Williams had been elected honorary members in the room of those deceased. It was proposed that Mr. Cæsar Hawkins should also be elected a honorary member. The Honorary Treasurer (Dr. Greenhow) then read the balance-sheet of the Society, and Mr. S. Watson and Mr. E. Venning moved that the report of the Council be received, adopted, and entered upon the minutes. This proposition was carried unanimously. Subsequently, a vote of thanks to the retiring Honorary Secretary, Dr. Southey, was proposed by Mr. Hulke, seconded by Dr. Cholmeley, and carried unanimously. Dr. Southey returned thanks for the vote. Dr. Broadbent proposed a vote of thanks to the three retiring Vice-Presidents and other retiring members of Council; this proposition was seconded by Mr. A. T. Norton, and carried unanimously. The officers for the coming year were then elected.

Morbus Erronum.

Dr. Greenhow introduced a patient, presenting such marked pigmentation of the skin that he had been sent to Middlesex Hospital as a case of Addison's disease. He was a pauper, about sixty years of age, and had doubtless been long exposed to the influences of dirt and vermin. Most of the regions chiefly affected in Addison's disease were here very deeply pigmented; but some symptoms, as vomiting and breathlessness, which might be attributed to constitutional disturbance, were accounted for by cardiac disease. Possibly some cases, erroneously described as Addison's disease, without supra-renal affection, were examples of this kind of pigmentation, which Dr. Greenhow proposed to style "morbus erronum." The pigmentation, however, was more mottled and less uniformly distributed than in Addison's disease. Moreover, the face and hands were least discoloured, and repeated applications of detergents diminished considerably the depth of tint.

The President remarked that it was a point of diagnostic interest in the case that there was no pigmental deposit along the tarsal margins, as was found in Addison's disease.

Dr. Southey said that Professor Hebra taught that, in cases similar to this one, the scapular regions were most free from pigmentation; whilst on parts of the body, such as the hips, where the man could best rub and scratch himself with his hands, the pigment was most marked. It was so in this case.

Dr. Greenhow said that, ten years ago, at the Pathological Society, he had exhibited examples of this malady, which he had called "Vagabonds' Disease." The Germans had since adopted the term; but, as it could not well be placed over the patient's bed, or in his sight, he had lately used the title—"morbus erronum."

Thrombosis of the Cavernous Sinuses—Sudden Loss of Vision—Hæmorrhage into the Right Anterior Lobe.

Dr. Dowse read notes of this case. The patient, a strongly built man, in the prime of manhood, whilst walking home from Covent-garden, was suddenly tripped-up behind, causing him to fall upon the back of the head. He was stunned for a few seconds, but recovered himself sufficiently to walk home, a distance of a quarter of a mile, without feeling giddy. There was no evidence of any serious injury to the skull, nor hæmorrhage, nor vomiting. The following morning, the scalp in the occipital region was much swollen; but he did not experience any severe pain in the head for two or three days, when it came on with great severity, and extended to every part. On the day previous to his admission into the Central London Sick Asylum at Highgate, his sight became cloudy, and in a few hours he was completely and (as it proved) permanently blind; so that, when first seen, there was nothing to be noted, either mentally or physically, save the total loss of vision. The other special senses were good, and both cranial and spinal nerves normal. The pupils were dilated, and the irides immovable. Upon ophthalmoscopic examination, the condition of ischæmia papillaris was well marked. The discs were swollen, œdematous, and covered with small patches of extravasated blood. The veins were large and tortuous. He was treated with blue pill and iodide of potassium; but the want of sight continued. On December 6 he was seized with diffuse inflammation of the scalp; and on the day previous to his death the following note was made:—"Is lying on his back in a state of partial coma The lower limbs are devoid of voluntary, automatic, or reflex movements. The upper limbs are moved automatically. There is subjective, but not objective, cerebral consciousness. There are no convulsive movements, nor muscular rigidity, showing pretty clearly that his condition is not due to hæmorrhage over the convolutions." Thus was found a state of subconsciousness, cutaneous anæsthesia, muscular æsthesia, akinesis of lower and automatic movements of upper limbs. Pulse 160; temperature 104·2°. The post-mortem appearances of the brain were stated in detail. The superior longitudinal and lateral sinuses were free from thrombi; but the cavernous sinuses were almost completely occluded with fibroid masses adherent to their walls. In the substance of the right anterior lobe there was seen to be considerable hæmorrhage of recent date, not localised, but distributed freely through it. At the outer part it was punctiform; but towards the anterior fissure, in relation to the gyrus rectus, was a clot of blood about the size of an acorn. The microscopic appearances of the brain and optic nerves were then detailed. Dr. Dowse remarked, in reference to the plugging of the cerebral sinuses, how little we have to guide us in making a diagnosis as to the existence of this lesion; and, from examinations which he had made, he was inclined to believe that thrombosis of these blood-channels was of more frequent occurrence than was usually supposed; and it became a question how far this part of the circulation

might be interfered with, and yet the brain retain its physical and psychical characteristics. It appeared probable that, in the case under consideration, thrombosis of some of the sinuses took place shortly after the accident, and gave rise to the intermittent attacks of pain. That the sudden loss of vision, with rupture of the retinal vessels, was caused by the plugging of the cavernous sinuses, seemed probable; and, again, the hæmorrhage into the anterior lobe might be ascribed to the same cause. Hæmorrhage into the anterior lobe was of rare occurrence, and its diagnosis more difficult than that of any other. (Gintrac found that, in a total of 751 cases of hæmorrhage within the cranium, it occurred only in seventeen.)

The PRESIDENT said that the punctiform hæmorrhage into the brain could only arise from impediment to the return of blood from the part in which it occurred. It sometimes followed a blow by which the brain was torn, and where subsequent plugging by a clot in the torn vessels occurred.

Dr. SOUTHEY said that punctiform hæmorrhage had been formerly regarded as one of the evidences that concussion of the brain had happened.

Dr. BUZZARD inquired if Dr. Dowse had given the microscopical characters of the outgrowth from the brain.

Dr. DOWSE said that there was no actual tumour; the outgrowth was simply due, he supposed, to infiltration of serum.

Dr. GOWERS asked if any special observations were made as to the loss of taste. The injury of the brain was close to the olfactory nerve, and was far removed from the part whence arise the true nerves of taste. It was, of course, well recognised that taste and smell were very closely allied.

Dr. DOWSE stated that there was not an entire absence of taste, but great abnormality of that sense, so that things which would usually taste pleasant were very disagreeable. There was apparently no affection of the sense of smell.

Mr. HULKE said that in such a case he had noticed pulsation of the orbital tissues, closely simulating aneurism. He thought it due to momentary tightening of the pressure of the substance of the orbit at the time of the pulse, whilst, the cavernous sinus being plugged, the pulsation occurred anteriorly.

Mr. HOLMES said that in many of these cases a loud bruit was to be heard over the side of the head on which the injury had happened.

Mr. HULKE said that in his case there was so loud a bruit that the husband could not sleep with his head on the same pillow as that on which his wife (the patient) slept.

Dr. DOWSE had not examined the head of his patient stethoscopically.

The PRESIDENT inquired of Mr. Hulke where the noise in his case had been produced.

Mr. HULKE said that the murmur was rhythmical with the pulse, and was probably produced by the plugged sinus pressing on the internal carotid, whence the noise was communicated through the bones of the skull, as through a sounding-board.

Mr. HOLMES said it was a well-known fact that in thrombosis of the cavernous sinus there was to be heard a bruit over the side of the skull; but whether it was always to be heard he did not know.

Dr. DOWSE said that in a case of thrombosis of the cerebral sinuses which he had brought forward at the Pathological Society there were such blowings and whistlings as had been mentioned by Mr. Holmes.

Dr. SYMES THOMPSON remarked that in Mr. Hulke's case, which occurred eighteen years ago, and which he had seen, the murmur was so very loud over all the skull as to lead himself and Mr. Bowman to diagnose an aneurism. But after death no aneurism was to be found.

CONGENITAL FATTY TUMOUR.

Mr. E. VENNING related the particulars of this case. C. E. G., a male child, aged eight months and a half, was seen in July last. At that time, a tumour was found situated on the right buttock, rather to its inner side. It was first noticed by the mother at the birth of the child, and was then about the size of a pigeon's egg. Its surface was very red, and she remarked that it began to increase in size when the child was two months old. When seen in July last, it was of the size of a Tangierine orange, its surface was of a dark red colour; it was elastic to the touch, and became much more tense when the child cried. There was no impulse, and it had no connexion with the rectum. It so much resembled a large nævoid growth that it was diagnosed as such. The growth was then divided into three portions by strong silken ligatures, and for a time they seemed to be contracting rapidly. In September the case was again seen, when it was found that rapid growth had taken place, and the tumour was then as large as a moderate-sized orange. Extirpation was decided on and performed. Very little hæmorrhage took place. The tumour was found to consist of fat, very like fœtal fat, and differing considerably from the usual appearance of a fatty tumour occurring in adults. Remarks were first made on the difficulty which was experienced in arriving at a correct diagnosis of the nature of the tumour, as it presented so many of the characteristics of a large nævus, and secondly upon the rarity of fatty tumour occurring in a congenital form. Reference was made to reported cases, and also to some specimens of the disease in the museum at St. George's Hospital.

Mr. HOLMES said it was a case of great interest. Surgeons were too much in the habit of considering all congenital growths as nævi. Many were outgrowths of the cellular tissue, some being mixed with cysts. They grew with enormous rapidity, so as to simulate the growth of cancer; and yet upon post-mortem examination turned out to be nothing but tissue like udder. Others, like Mr. Venning's case, were more solid. Of such a kind was Mr. Athol Johnson's case, to which Mr. Venning had alluded. In the operation for the removal of that tumour, which had been witnessed by Mr. Holmes, the tumour being situate over the spine, it was found that the laminæ of the subjacent vertebræ were absent, so that the spinal membranes were exposed, and they were found pulsating, like the membranes of the brain. In Mr. Venning's case, the skin and cellular tissue only were involved, and, when "insulted" by the ligature at the first operation, the tumour grew with enormous rapidity. He thought the best way, if one were in doubt as to the nature of the case, was to puncture or make a small incision into the tumour.

The PRESIDENT inquired why the swelling increased in size when the child cried.

Mr. HOLMES said it was perhaps from its proximity to the rectum; as a hernia would similarly increase. There was, however, no anatomical connexion between this tumour and the rectum. In another case, where a tumour was lying on the rectum, he had noticed a distinct impulse when the child cried.

Mr. A. T. NORTON said that if a trocar had been inserted into the growth, and a crochet-needle passed through it into the tumour, sufficient of the substance might have been removed for microscopical examination. In such a case in the neck, where the diagnosis was doubtful, this expedient was resorted to, and the growth was found not to be a nævus, as had been suspected, but fat.

Dr. GOODHART said that mucous tissue grew rapidly, whilst fat did not. He thought perhaps there was a case of rapid growth of mucous tissue. He related the case of a child, ten years of age, which had a tumour in the thigh, which was removed by Mr. Davies-Colley. Upon subsequent examination, the fat of the tumour contained large interspaces filled with blood, showing a close relationship between fatty tumours and nævi.

Mr. MORGAN said that Mr. T. Smith, with his wide experience of children's surgical diseases, had only twice removed such congenital tumours. In each case, the tumour grew from bone; from the radius in the one case, from the ilium in the other.

Mr. VENNING said that, in his case, the skin was exceedingly vascular, and when the child cried, became turgid: which was perhaps the cause of its increase in size upon such occasions. The tumour certainly should have been punctured before its removal; but it seemed to be an undoubted case of nævus. When a tumour was solid, a needle inserted into it could not be moved about; whereas, when the swelling was nævoid, a needle being inserted, could be turned about in all directions.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—The fourth meeting of the Society was held at the Medical Library on Tuesday, January 4. The discussion on Mr. Turner's "Case of Catalepsy" was resumed; Dr. Beverley exhibited Hawksley's apparatus for the inhalation of ether; and Mr. Turner presented a patient suffering from great enlargement of the liver. The next meeting will be held at the Norfolk and Norwich Hospital, February 1, at 3.30 p.m.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 24th inst., viz :—

Bark, John, L.K. and Q.C.P. Ire., Great Crosby, Lancashire, student of the Liverpool School.
Evans, Frederick William, L.S.A., Cardiff, of St. Bartholomew's Hospital.
Fendick, Rowing William, L.K. and Q.C.P. Ire., Portland-square, Bristol, of the Bristol School,
Harris, Stanford, L.S.A., Pendlebury, Lancashire, of the Manchester School.
James, Walter Culver, L.S.A., Kennington-park-road, of Guy's Hospital.
McCarthy, George Francis, Dublin, of the Dublin School.
McLarty, Colin, M.B., Toronto, St. Thomas's, Ontario, of St. Thomas's Hospital.
Millman, Thomas, M.D., Toronto, Woodstock, Ontario, of St. Thomas's Hospital.
Moone, John, Mornington-road, of University College Hospital.
Moorhead, James, M.D. Dub., Belfast, of the Belfast School.
Naylor, Charles George Robinson, L.R.C.P. Edin., Calcutta, of the Edinburgh School.
Paxon, Herbert Elliott, L.S.A., Dorking, of the London Hospital.
Pickburn, Thomas James, M.D. Aber., Sydney, New South Wales, of St. Bartholomew's Hospital.
Popert, Adolph Joseph, L.S.A., Limehouse, of the London Hospital.
Saunders, Edward Argent, L.S.A., Haverfordwest, of University College Hospital.
Startin, James, Kennington-road, of St. Thomas's Hospital.
Walker, George Abraham, M.B. Aber., Darlington, of the Edinburgh School.
Weddell, William Henry, L.S.A., Stamford, of St. Mary's Hospital.
Wright, William Henry, L.S.A., Derby, of the Liverpool School.

Four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners; were referred to their professional studies for six months, and one gentleman who passed in Surgery will be admitted a Member of the College when qualified in Medicine.

The following passed on the 25th inst., viz. :—

Betty, Samuel George, L.S.A., Park-street, Regent's-park, student of University College Hospital.
Braithwaite, Samuel, Egremont, Cumberland, of the Newcastle School.
Cameron, Charles Hamilton Hone, Plymouth, of St. Thomas's Hospital.
Chadwick, George Richard, L.S.A., King's Lynn, Norfolk, of Guy's Hospital.
Davis, Henry, L.S.A., Euston-square, of the Middlesex Hospital.
Finch, Alfred, Blackheath, of Guy's Hospital.
Gardner, Arthur John, Northallerton, Yorkshire, of the Leeds School.
Gorst, Henry, Huyton, Lancashire, of the Liverpool School.
Grimbly, Richard Henry, Banbury, St. Thomas's Hospital.
Hay, John Home, Wandsworth, of the Edinburgh School.
Jacob, Ernest Henry, M.A. and M.B. Oxon., Winchester, of St. Thomas's Hospital.
Osborne, John Henry, L.S.A., Southwell, Notts, of University College Hospital.
Speed, Henry Andrews, New Cross, of St. Thomas's Hospital.
Stewart, William Robert, Russell-street, E., of the London Hospital.
Taunton, William Whitchurch, Salisbury, of University College Hospital.
Wade, Arthur Breedon, Ryde, Isle of Wight, of St. Mary's Hospital.
Wise, Alfred Thomas Tucker, Warlock-road, W., of St. Mary's Hospital.
Wolff, Alfred Abraham, Gloucester-gardens, of St. Thomas's Hospital.

Two gentlemen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

The following passed on the 26th inst., viz. :—

Champneys, Henry Laurence, New-street, S.E., student of Guy's Hospital.
Duke, Edgar, Clapham-road, of Guy's Hospital.
Eccles, Robert, Larne, co. Antrim.
Evans, Charles Walter, Bakewell, Derbyshire, of Univerity College.
Fitzgerald, James Gubbins, Cambridge-street, W., of the Charing-cross Hospital.
Forrest, John George Stracey, Bessborough-gardens, of St. George's Hospital.
Francis, Ernest George, Sutton, Surrey, of University College.
Holwell, Edward Baines, Leeds, of the Leeds School.
Jackson, Arthur Atkinson, Adbaston, Newport, Salop, of the Birmingham School.
Layborn, William Kirkus, Beverley, Yorkshire, of University College.
Mackson, George, Blackheath, of Guy's Hospital.
Oram, Richard Rundell William, Stonehouse, Devon, of Guy's Hospital.
Sellon, John William Gore, Budleigh Salterton, Devon, of University College.
Strange, Orlando Baily, Hammersmith, of the Charing-cross Hospital.

One candidate was approved in Surgery, and when qualified in Medicine will be admitted a Member of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 20 :—

Barnes, Raglan Wykeham, 126, Gower-street, W.C.
Feltham, William Parsons, Queen-street, Portsea.

The following gentleman also on the same day passed his primary professional examination :—

Roberts, John Thomas, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

MILES, GEORGE EDWARD, M.R.C.S., Assistant Medical Officer at the North Wales County Lunatic Asylum, Denbigh.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870 :—James Gibson Thomson Forbes, Esq., has been authorised to assume the rank of Deputy Inspector-General of Hospitals and Fleets of her Majesty's Fleet from November 8, 1875, the date on which he was placed on the retired list.

BIRTHS.

DAVY.—On January 16, at Vue du Lac, Guernsey, the wife of Francis Arthur Davy, M.D., Surgeon Army Medical Department, of a daughter.

HYDE.—On November 6, 1875, at Aller Park, Ladysmith, Natal, the wife of G.C.Hyde, District Surgeon, J.P. for Klip River, prematurely of a son.

MAUNSELL.—On January 21, at the Royal Arsenal, Woolwich, the wife of Surgeon-Major T. Maunsell, Army Medical Department, of a daughter.

MCCONAGHY.—On December 25, at Peshawur, Punjaub, the wife of J. M. McConaghy, M.D., 29th Bengal Native Infantry, of a son.

ROBERTSON.—On January 19, at West Dulwich, the wife of W. B. Robertson, M.D., of a son.

TARRANT.—On January 23, at 2, Peel-terrace, Chester-road, Manchester, the wife of Surgeon-Major T. Tarrant, M.D., of a son.

MARRIAGES.

BURT—MACGREGOR.—On January 13, at St. George's, Bloomsbury, Edwin Burt, of Barking, Essex, to Julia, widow of the late John James MacGregor, M.D., of Brunswick-square, London.

GARDINER—NORTH.—On January 18, at Stoke Damerel Church, South Devon, William Alexander Gardiner, Surgeon-Major Army Medical Department, son of the Rev. A. S. Gardiner, rector of Halstead, Essex, to Kate, daughter of the late John R. North, Esq., of Leeson-street, Dublin.

JONES—RIDGE.—On January 20, at Christ Church, Marylebone, Thomas Jones, M.D., of 19, Chapel-street, Belgrave-square, to Ruth Harriet Mary, only surviving child of the late Joseph Ridge, M.D., F.R.C.P., of 39, Dorset-square, N.W.

MOBERLY—FRASER.—On December 28, 1875, at St. Paul's Church, Landom, N.-W. Presidency, India, Wm. Henry Moberly, Lieut. 40th Regiment, youngest son of the late Colonel Henry Moberly, H.E.I.C.S., Madras, to Mary Jane, eldest daughter of Surgeon-Major Archibald Henry Fraser, Army Medical Department, late of 88th and 40th Regiments.

OVERTON—WEBB.—On January 13, at Christ Church, Ramsgate, Peter Raven Overton to Mary Whiteman, eldest daughter of John Whiteman Webb, M.D., of Ramsgate.

TUCKEY—LOVE.—On January 22, at St. George's Church, Bloomsbury, Charles Caulfield Tuckey, M.B., to Susanna, daughter of the late John Love, Esq., of Canterbury.

DEATHS.

CLARK, HUGH, M.D., Surgeon Bengal Army (retired), at 6, Ardross-street, Inverness, of typhus, on January 23, in his 41st year.

FERGUSSON, ANDREW, M.D., Surgeon-Major Madras Army, at sea, on board the Peninsular and Oriental steamer *Zambesi*, on December 31, 1875.

GASCOYEN, GEORGE GREEN, F.R.C.S., Surgeon to the Lock and St. Mary's Hospitals, at his residence, 48, Queen Anne-street, Cavendish-square, W., on January 23, aged 46.

WAYTE, CHARLES MATTHEW, M.B., at Rome, on January 18, aged 51.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM AMALGAMATED FRIENDLY SOCIETIES' PROVIDENT MEDICAL INSTITUTION.—Resident Surgeon. Candidates must be married and duly qualified. Applications, with testimonials, to the Secretary, 197, Camden-street, Birmingham, on or before February 16.

KENT COUNTY LUNATIC ASYLUM, BARMING HEATH, MAIDSTONE.—Medical Superintendent, and a Second Assistant Medical Officer. Candidates for both appointments must be duly qualified and registered. Applications, with testimonials, to Messrs. Beale and Hoar, at the Asylum, on or before February 11.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to H. H. Hornby, Esq., 8, Knowsley-buildings, Tithebarn-street, Liverpool.

LONDON HOSPITAL, MILE END, E.—Assistant Obstetric Physician. Candidates must be M.R.C.P. Lond. Applications, with testimonials, to the House Committee, on or before January 31.

NORTH LONDON CONSUMPTION HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

Odd-Fellows' Dispensary, Hull.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

Royal Hospital for Diseases of the Chest, City-road.—Surgeon. Applications, with testimonials, to the Secretary, on or before Feb. 28.

Royal Free Hospital.—Three Junior Resident Medical Officers. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before February 2.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Chelmsford Union.—Mr. C. Franklin has resigned the Sixth District; area 6092; population 2145; salary £48 per annum.

East Retford Union.—Mr. Whitington has resigned the Tuxford District; area 17,571; population 3516; salary £40 per annum.

Gower Union.—Mr. J. Hurley has resigned the Eastern District; area 7581; population 4032; salary £20 per annum.

Northallerton Union.—Mr. Pringle has resigned the Osmotherley District; area 11,327; population 1936; salary £35 per annum.

Stratton Union.—Mr. E. A. Burgess has resigned the Week St. Mary District; area 27,430; population 3065; salary £60 per annum.

APPOINTMENTS.

Central London Sick Asylum District.—Samuel Benton, L.R.C.P. Lond., M.R.C.S. Eng., as Assistant Medical Officer at the Highgate Asylum.

Cranbrook Union.—Arthur A. Blakiston, M.R.C.S. Eng., L.S.A., to the Benenden District.

Lincoln Union.—John T. H. Sealy, L.R.C.P. Ed., L.R.C.S.I., to the Twelfth District.

Rugby Union.—Thos. B. Whitehead, M.R.C.S. Eng., L.R.C.P. Edin., to the Dunchurch District.

St. Saviour's Union.—Thomas S. Worboys, M.R.C.S. Eng., L.S.A., to the First District; Alfred Matcham, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Fourth District.

Conversazione of the Obstetrical Society.—The Obstetrical Society proposes to give a *conversazione* in May next, and we understand that permission has been given for it to be held at the Royal College of Physicians. It is expected that there will be a very brilliant gathering, and we believe that it is looked forward to with considerable interest by many who are desirous of promoting the welfare of the Society.

West Kent Medico-Chirurgical Society.—On Friday, January 7, the fourth meeting of this Society was held at the Royal Kent Dispensary, Greenwich-road, Dr. J. N. Miller, President, in the chair. Dr. Thomas B. Peacock read a very valuable and instructive paper on "Rheumatic Carditis." The next meeting will be held on Friday, February 4, at 8 p.m. precisely, when Dr. Tilbury Fox will read a paper on "Ringworm."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Lex.—1. Obstetrics is a branch of medical practice. 2. Any *registered* practitioner, physician, surgeon, or apothecary can fill up a certificate of lunacy.

The Salaries of Medical Officers of Health.—Referring to the article which appeared in our last issue under the above heading, Mr. J. Guy, M.R.C.S. Eng., of Workington, writes:—"It was not owing to Mr. Fox's salary being too much that he was not re-appointed; his successor was appointed at the same salary. His successor gave entire satisfaction until stricken with paralysis; when Mr. Fox was re-appointed there was no other candidate."

W. P. C.—A remarkable predecessor of Mesmer in this country was Valentine Greatrakes. He, in Charles the Second's reign, performed "severall marvaillous cures by the stroaking of the hands." He was born on February 14, 1628, at Affane, in the county of Waterford. Not only from all parts of Ireland, but from England, the lame, blind, deaf, dumb, and diseased made their way to him at Affane. When he settled in London, both rich and poor flocked to him. Mr. Justice Godfrey assigned rooms at his house, in Lincoln's-inn-fields, for the reception of patients.

Critic.—Dr. Johnson's reply to Miss Lucy Porter, who told him that she should like sometimes to purchase new publications, but might she trust to the reviewers, was, "Infallibly, my dear Lucy, provided you buy what they abuse, and never anything they praise."

A Surgeon's Widow.—Croquet is said by some medical men to be an unhealthy game, because it necessitates much lounging and standing still, and a good deal of stooping.

Statistics.—From the "Australian Statistics" for the year 1874, it appears that the population of Australia in that year was 1,753,403 persons, that of Tasmania was 104,197, and that of New Zealand 318,903; and according to the *Japan Mail* a recent census of the Japanese empire shows the population to be 33,300,675 persons, being an increase of 189,850 since the last census three years ago.

A Metropolitan Teacher.—We have been informed that out of the 103 candidates at the anatomical and physiological examination for the diploma of Membership of the Royal College of Surgeons, which will be brought to a close this day, no less than sixty had been rejected from once to four times (inclusive) at previous meetings.

F.R.C.S., Manchester.—As a Fellow of the College and a recognised lecturer you will readily obtain access to the theatre to witness the examinations now going on. Several visitors daily attend. We noticed a Birmingham teacher on Tuesday last. Each candidate has now ten minutes' examination at three tables instead of two, as formerly, and the result is taken by marks. Mr. Savory is chairman of the new Board of Examiners, and at each of the four tables is one of the old members of the Court, associated with one of the recently elected members—viz., Messrs. Birkett and Power, Holmes and Gascoyen, Forster and Wood, Holden and Heath. There were 103 candidates. The pass examination commences this day (Friday).

J. J. N.—Dryden's lines are—

"The first physicians by debauch were made:
Excess began and sloth sustained the trade.
By chase our long-liv'd fathers earned their food,
Toil strung their nerves, and purified their blood;
But we, their sons, a pamper'd race of men,
Are dwindled down to threescore years and ten.
Better to hunt in fields for health unbought
Than fee the doctor for a wondrous draught.
The wise for cure on exercise depend;
God never made his work for man to mend."

Subscription-list.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to offer you my grateful thanks for inserting my letter in your valuable journal on the 1st inst. May I ask you to increase your kindness by permitting me through the same medium to acknowledge the following subscriptions already received. I am, &c.,

Sarah Beale.

January 20.

	£	s.	d.
Sir W. Jenner	5	5	0
Sir James Paget	2	2	0
Dr. J. W. Begbie	2	2	0
Dr. L. S. Beale	1	1	0
Dr. Barr Meadows... ...	1	1	0
Dr. Roche Lynch	1	1	0
Dr. William Thorn ...	1	1	0
Mr. H. H. Rugg	1	1	0
Dr. Danford Thomas ...	0	10	6
Mr. Hill	0	10	0
Total	£15	14	6

Medical Women *versus* Medical Men.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In looking through a late number of your journal I find it announced that the Royal College of Surgeons of England have obtained *new* power from Parliament in relation to the L.M. for women. I wondered, and have puzzled myself in trying to answer the question,—Is it a counter-move to that so recently obtained by the Worshipful Society of Apothecaries from the same source? Now, this enables the fair aspirants to register L.M.R.C.S.E., L.S.A.L.—quite a formidable run of letters! I, for one, have no objection to women entering the profession, so long as the public wish, provided they enter the over-stocked vocation through the same portals, and not with two cheap diplomas, which will give tangible proof to the public of their legality to practise, while medical men are obliged to take others. But if this little is granted, why on earth not give the whole? Half measures never succeed. Two of the four large lying-in hospitals in London are exclusively reserved for lady students and nurses. I have an idea that women will soon get tired of the glorious uncertainty pertaining to the calling of Æsculapius, however well it may answer for those in which the uterus exists in an immature state. Perhaps, on the other hand, we shall be enabled to learn something of the true physiology of ovulation. Consequently, in the interest of science, allow those to enter that will, sex being considered a mere accident; but do not confine the examination solely to states of the gravid or non-gravid uterus, but to things in general that belong to a medical or surgical calling, either as an alienist or oculist. The end of benefiting the public should justify the means employed to that purpose as being necessary. I am, &c.,

A. H. Morrill, M.R.C.S.E., &c.,

London, Jan. 24. late House-Surgeon to the Lying-in Hospital, &c.

The Contagious Diseases Act.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your readers cannot but be instructed by the letter of Mr. Lowndes on this subject, in your last number, and obliged to him for the pains taken in collecting facts and information,—it may be said, adding to a mass of records going before to the conviction and conclusion from results, which come "as shadows, so depart," on the mental vision of certain persons who view the question from their own standpoints. Two positions are taken up by them—first, the religious, calling it a licence for sin, an encouragement to vice and immorality; second, the spreading of disease, physical as well as moral, accompanied with annoyance to women in general. The religious charge is easily answered, for it is well known that in illicit sexual indulgence all risks are run, and that where religion makes the individual chaste the consideration of disease or no disease enters not into the question. Respecting, secondly, the operation of the Act, it can be administered by a detective police like any other Act, not to interfere with or annoy the wrong person; and attested reports prove not only the lessening of disease, but much reformation of unfortunate women.

The Act was a necessity to make our soldiers and sailors more free from disease and efficient for duty. So far it has succeeded, and must abate taxation. When we look at the appalling miseries and mischiefs coming from the diseases contemplated to be dealt with (people of high birth and low equally exposed to infection), the corroding poison silently passing through married life to the children, we might presume all fathers and mothers, viewing the measure in its right light and by its effects, would hail it as wise and proper and most desirable legislation. No extravagance, however,—under the monomania of intellectual phantasmagoria, even among many persons regarded for cleverness and character,—needs be wondered at after the renowned Kenealy-Claimant case.

Nailsworth, January 25. I am, &c., Thos. Stokes.

COMMUNICATIONS have been received from—

Mr. H. K. Hitchcock, Lewisham; Mrs. S. Beale, London; The Registrar of Apothecaries' Hall, London; Dr. C. Williams, Norwich; Lex; C. B. B.; Our Paris Correspondent; The Registrar of the King and Queen's College of Physicians, Dublin; Mr. W. W. Reeves, London; Dr. T. Smith, Reigate; Mr. H. P. Pike, Gloucester; Mr. A. Davidson, Liverpool; Dr. Wiltshire, London; Mr. T. Stokes, Nailsworth; Dr. Bevan Lewis, Wakefield; Dr. Dale, Kingsland; Mr. G. Hett, London; Mr. Grays, Workington; Mr. Morrill, London; Dr. B. Bramwell, Newcastle-on-Tyne; Dr. J. W. Moore, Dublin; Dr. R. J. Anderson, Belfast; Mr. W. E. Williams, Abertillery; Mr. L. Casella, London; Mr. Henry Arnott, London; Dr. T. M. Bruce, London; Dr. Gavin Milroy, Richmond, Surrey; Mr. J. Hancocke Wathen, Fishguard, Pembrokeshire; Mr. J. Knowsley Thornton, London; Mr. J. Chatto, London; Mr. Henry Morris, London; Mr. George Brown, London; Mr. W. E. Poole, London.

BOOKS AND PAMPHLETS RECEIVED—

Hygiène de la Voix, par le Dr. L. Mandl—Leisrink on the Transfusion of Blood, translated by Gill—The Report of the Committee of Management of the Metropolitan Imbecile Asylum, Caterham—Chambers's Popular Summary of Public Health—Foulis on the Development of the Ova—Robinson on Post-Nasal Catarrh—Jones on Evolution of the Human Race from Apes, a Doctrine unsanctioned by Science—Haviland and Field on the late Visitation of Typhoid Fever in the School and Town of Uppingham—Examination Questions, arranged by H. Aubrey Husband, M.B.—Jones on the Medical Responsibility in the Choice of Anæsthetics—Simpson on Emmenologia—McElroy on Electro-Therapeutics—Kerr on the Medical Aspect of the Temperance Question.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—The Medical Inquirer—The Live Stock Journal and Fancier's Gazette—Brighton Observer—Tallerman's Table Talk—Glasgow Medical Journal—Dublin Medical Journal—Sheffield Daily Telegraph—Journal D'Hygiène—Chicago Medical Journal and Examiner—Revue des Sciences Médicales—Canada Medical and Surgical Journal—Annali Universali di Medicina e Chirurgica—Canada Lancet—Deutsche Medicinische Wochenschrift—Münchener Nachrichten—Transactions of the Medical Society of Columbia, U.S.A., vol. ii., Nos. 2 and 3—Melbourne Medical Record—Hastings and St. Leonard's Chronicle—Archives of Dematology, vol. ii., No. 2—New York Medical Journal—American Journal of Insanity—American Journal of Medical Sciences—Journal of the Society of Arts.

APPOINTMENTS FOR THE WEEK.

January 29. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. P. Pullan, on his "Excavations in Asia Minor."

31. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Lettsomian Lectures—Dr. C. Theodore Williams, "3. On the Influence of Climate in the Treatment of Pulmonary Consumption: Comparison of Home and Foreign Climates."

February 1. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

2. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Adjourned Discussion on Dr. Meadows's "Note on the Post-mortem Diagnosis of a Nulliparous Uterus": Illustrative Specimens by Dr. Braxton Hicks, Dr. Edis, and others. Dr. John Williams, "On the Mechanical Action of Pessaries." Dr. Cooper Rose, "A Contribution to the Statistics of Midwifery in General Practice." And other Communications.

Royal Microscopical Society, 8 p.m. Anniversary. The President will deliver an Address, and the Officers and Council will be elected.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p m.

Harveian Society, 8 p.m. Mr. Alfred Cooper, "On Piles: their Diagnosis and Treatment."

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

4. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. Preece, "On Applications of Electricity to Protect Life on Railways."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 22, 1876.

BIRTHS.

Births of Boys, 1332; Girls, 1295; Total, 2627.
Average of 10 corresponding years 1866-75, 2337·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	852	930	1782
Average of the ten years 1866-75	785·3	793·4	1578·7
Average corrected to increased population ...	...	...	1689
Deaths of people aged 80 and upwards ...	...	...	80

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	12	6	1	11	...	3	...	3
North	751729	...	8	12	5	27	2	1	1	3
Central ...	334369	...	4	10	...	9	...	...	...	2
East	639111	...	12	7	1	16	2	2	...	2
South	967692	...	16	25	...	32	1	7	1	6
Total	3254260	...	52	60	7	95	5	13	2	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·953 in.
Mean temperature	39·5°
Highest point of thermometer	49·2°
Lowest point of thermometer	24·3°
Mean dew-point temperature	36·0°
General direction of wind	S.W. & S.
Whole amount of rain in the week	0·54 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 22, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Jan. 22.	Deaths Registered during the week ending Jan. 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2627	1782	49·2	24·3	39·5	4·17	0·54	1·37
Brighton	100632	42·7	66	31	46·0	24·8	38·3	3·50	0·47	1·19
Portsmouth ...	124367	27·8	80	39	...	...	...	...	...	...
Norwich	83430	11·2	51	45	47·2	23·0	37·4	3·00	1·11	2·82
Plymouth	72230	51·8	48	34	...	...	...	...	...	...
Bristol	199539	44·8	141	135	50·3	24·6	39·5	4·17	1·61	4·09
Wolverhampton ...	72549	21·4	65	33	49·0	23·3	37·3	2·95	1·36	3·45
Birmingham ...	371839	44·3	335	206	50·0	23·6	38·3	3·50	1·17	2·97
Leicester	113581	35·5	91	45	49·5	22·5	38·2	3·44	0·95	2·41
Nottingham ...	93627	46·9	60	60	48·2	24·6	37·3	2·95	0·92	2·34
Liverpool	521544	100·1	388	364	51·3	30·0	40·7	4·83	0·48	1·22
Manchester ...	357917	83·4	234	246	49·0	25·0	39·5	4·17	1·02	2·59
Salford	138425	26·8	119	93	49·9	22·0	37·8	3·23	1·13	2·87
Oldham	88609	19·0	74	77	...	...	...	...	...	...
Bradford	173723	24·1	134	84	50·0	28·6	40·5	4·72	0·24	0·61
Leeds	291580	13·5	255	132	50·0	30·0	40·2	4·55	0·17	0·43
Sheffield	274914	14·0	187	151	49·7	25·5	39·8	4·34	0·92	2·34
Hull	136933	37·7	115	72	...	...	...	...	...	...
Sunderland ...	103343	32·8	109	43	50·0	29·0	40·4	4·66	0·01	0·03
Newcastle-on-Tyne	139929	26·1	113	63	50·0	26·0	40·1	4·50	0·00	0·00
Edinburgh	215146	51·3	107	95	...	...	...	...	...	...
Glasgow	545144	90·4	392	309	50·5	24·0	40·3	4·61	1·42	3·61
Dublin	314666	31·3	166	203	53·5	21·3	41·2	5·11	0·15	0·38
Total of 23 Towns in United Kingdm	8028595	37·7	6007	4342	53·5	21·3	39·2	4·00	0·76	1·93

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·95 in. The highest was 30·46 in. at the beginning of the week, and the lowest 29·45 in. on Friday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

NOTES ON SYPHILIS:

BEING THE ADDRESS AT THE PATHOLOGICAL SOCIETY INTRODUCTORY TO THE DISCUSSION ON THAT SUBJECT.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital;
Surgeon to the Moorfields Ophthalmic Hospital and to the Blackfriars Hospital for Skin Diseases.

MR. PRESIDENT AND GENTLEMEN,—In engaging in a discussion on syphilis, with a view to the advance of our knowledge of it, there are certain facts as to its nature which we may, I presume, take as generally acccpted. It is, I suppose, now a matter of general belief that the phenomena of this disease, notwithstanding their great variety in detail of character, are due to one virus, which, having been introduced into the body by contagion, developes within it, with tolerable uniformity as regards stage and time, certain processes of inflammatory growth. The pluralistic doctrine of Carmichael never obtained any wide acceptance; and it is now, I think, generally acknowledged that what was called dualism had not really any claim to such a name, since but few ever believed that there were really two rival forms of virus capable of producing constitutional effects. Further, even in its much more restricted sense, as implying that there are two distinct kinds of virus, to which are attributed two different forms of chancre, I think we may say of dualism that it is dead, and that the far simpler creed which attributes the soft chancre to contagion with inflammatory products produced by syphilis, but not, as a rule, containing its germs, is the one which now obtains general acceptance. We have, then, in syphilis, but one malady and one virus.

The objections which, on account of its apparent irregularity, were at first urged against the claim of syphilis to take position amongst the specific fevers, have been greatly diminished of late by facts from two different directions; first, by the observation that the short-lived exanthemata are by no means so regular and uniform in their carecr as it had been customary to account them; and that, in point of fact, they do vary quite as much as to length of stage, degrec of severity, and occasional omission of some of their phenomena, as does syphilis. Secondly, we have come to appreciate more correctly the antidotal power of our specifics, and have remembered that it is not fair to allege against a malady that it is irregular in its course, when our observations are made on cases in which we have done our best, by means of a most potent antidotc, to arrest its career. I have no doubt but that, if mercury were entirely put aside, we should soon see that syphilis is quite as regular in its stages as variola, and also that it varies quite as little in its degree of severity in different persons. When mercury does not cure, it delays; and the retardation of stages sometimes witnessed under its use is very remarkable.

Thus, then, what I shall have to say this evening will be based on the assumption that in syphilis we have to deal with a specific fever of prolonged but definite stages, which is produced by contagion only, which has a period of incubation, a period of outbreak (known as primary symptoms), and a period of efflorescence or exanthem (known as the secondary stage), and which, in exceptional cases, differs somewhat from its more short-lived congeners by being followed by sequelæ to which we give the name of tertiary symptoms.

Had it not been for this unfortunate tendency to recur and become protracted, syphilis might have remained a surgical malady. If it always ended, as it ought to do, with its exanthem or secondary stage, there would have been no need to trouble physicians as to its treatment, nor is it very probable the Pathological Society of London would have thought it worth while to invite a detailed discussion of its life-history problems. To the annoyance and misery of thousands, however, syphilis does not always end with its apparent death at the expiration of the secondary stage. The patient seems then to be well: he loses his fever; his rash disappears; his throat heals; his hair grows again; and his blood is renovated: but he is not safe. There remains ever after a risk—comparatively a very small one, but still sufficient to cause much anxiety—that he may become troubled with a tendency to the growth of tumours, which will be in direct relation to his bygone disease. These may occur in important parts, may attain large size, and will probably show very little tendency to spontaneous cure. To these we give the name of tertiary symptoms or sequelæ, and we recognise a most important distinction between them and those of the earlier stage, in that they are never general, and only by accident symmetrical. They do not constitute another stage of a blood disease; but, by their constant non-symmetry, appear to prove that now, at least, the blood is not concerned. We no more witness returns of the syphilitic exanthem—a symmetrical and general eruption—at long periods after the first, than we do recurrences of the small-pox cruption after the patient has recovered. Most unhesitatingly may we characterise as errors in observation a certain small number of cases which have been supposed to illustrate this occurrence. In all probability syphilis ceases to be a blood disease at the date when symmetrical manifestations cease to be usual. The precise period at which this takes place will vary with the treatment pursued and the idiosyncrasy of the patient.

The correct determination of the period at which syphilis ceases to be a blood disease could, perhaps, be determined with certainty only by inoculation experiments. That there is a period at which it does so cease without in the least exempting the patient from the risk of fresh local symptoms, appears highly probable. Whilst the secretions from all forms of secondary ulcerations and the blood of patients in the secondary stage are abundantly proved to be contagious, the negative evidence as regards both in the tertiary stage is very strong. The secretion from a phagedænic sore in a tertiary case may spread phagedæna, but will not spread syphilis, and hence, probably, one frequent source of what are called soft sores. It would be rash to assert that it is impossible for tertiary syphilis to prove contagious, but at present I know of no evidence which would support the affirmation. The test of contagion is probably the best that we possess as regards the existence of a blood-taint, and guided by it there seem strong reasons for suspecting that risk of hereditary transmission may persist long after the cessation of blood-contamination. At any rate, the risk of contagion appears to cease long before the risk of hereditary transmission. I admit that there is difficulty in conceiving of this, or in understanding how a taint no longer active in the parent's fluids can be reproduced with virulence in his offspring, but the facts seem to point in that direction. In speaking of the possibility of local syphilitic phenomena occurring long after the cessation of blood-taint, it is intended to imply very definitely the belief that many of the late phenomena of syphilis are purely local; and that, if they exist in parts which are accessible to local remedies, they do not imply any necessity for internal treatment. If I may be pardoned a statement which refers to clinical rather than to pathological matters, I may say that the long-persistent and frequently relapsing sores in the tongue and many forms of skin disease, palmar psoriasis, lupoid tubercles, etc., are local and not constitutional, and are cured quite as easily by local as by internal treatment. The internal gummata are also probably often only local, but you cannot bring mercury or iodine into contact with them, excepting by introducing these remedies into the blood. It is scarcely necessary to remark that success by internal treatment by no means proves that the disease was more than local.

Before proceeding further to speculate upon the true relationship between the secondary phenomena and their sequelæ, it may be best to glance briefly at some of the peculiarities of the syphilitic inflammations. So peculiar are the products that one is almost tempted to speak of new growth rather than of inflammation. From beginning to end—from the chancre to the latest tertiary gumma—the tendency to cell-growth is most remarkable, and the production of a solid, palpable mass, often very firm, is a characteristic feature of the inflammatory process when lighted up by the virus of syphilis. It is, however, by no means the only one. An avoidance of proclivity to suppuration (not constant, but still very marked), a tendency to cause death of the tissues affected, and thus produce phagedænic ulceration, or even sloughing, and a proneness to undergo rapid and complete absorption, and especially when attacked by certain metals or their salts, are features which characterise and distinguish the new growths due to syphilis. Let us add that, whilst absorption may easily be procured, relapses are very prone to occur, especially if the treatment be arrested too soon. It is to be insisted that these peculiarities are the common property of syphilis in all its stages. A gumma on the tongue may be almost as hard as a chancre, and either of them may be, and have been many a

time, mistaken for scirrhus. A chancre, when very large and dense, may perish and slough out just like an overgrown gumma. The chancre, the secondary rash, and the gumma, are all alike liable to undergo molecular death, and to be attended by phagedænic ulceration. To attempt to distinguish between the secondary and tertiary stages, by saying that the latter only is attended by liability to deep ulceration, is to set facts at defiance.

So marked is this liability to phagedæna in syphilis, and so rare in connexion with any other cause, that with a few exceptions we may count syphilis, either directly or indirectly, as the parent of all phagedæna. The discussion as to whether rupia and its allies are secondary or tertiary symptoms may thus be easily decided by explaining that there is nothing in the "rupial sore" characteristic of either stage, and that its features may be assumed in both. If rupia occur as a symmetrical eruption, it will always be found that the period which has elapsed since the contagion is only short, and that the disease is consequently secondary; but if it be unsymmetrical, then in all probability it is tertiary. Histologists, I believe, admit that the differences in cell-structure between an indurated chancre, a secondary tubercle, and a tertiary gumma, are only very slight, and that essentially all three are constructed on the same plan.

The attempt to found distinctions as to the stage of syphilis upon the tendency or otherwise to deep ulceration has been, let me repeat, the means of introducing much confusion into the subject. It cannot be too strongly insisted that this tendency may be shown at any stage. It may be remarked also in passing that phagedænic action constitutes an exception to the statement that the inflammations due to syphilis in an early stage show a tendency to spontaneous care. When the wizard Syphilis has once called up the demon Phagedæna, it has evoked that which it is powerless to control. No law of spontaneous cessation and recovery will now be observed; nor will the specifics for the parent malady avail much as regards the offspring. Phagedæna, once started, exists on its own behalf, and spreads by the contagion of its own pus. To arrest its spread it is necessary to destroy its secretion.

Thus, in examining the question as to the relationship between the several stages of syphilis, it is, I think, a matter of necessity that we admit that many features and many tendencies are shared by the phenomena which occur in all. Whilst, however, their similarities are marked, so also to some extent are their differences. First, and as by far the very most important of the differences between the stages, we place one which has been already mentioned—the tendency to general and symmetrical development in the secondary stage, and to local, restricted, and unsymmetrical formations in that of sequelæ. This, however, after all, is merely a question of abundance and not so much of character. In the secondary stage, the blood and all the tissues are involved; whilst, in the later ones, only certain regions, or it may be only single spots. The second difference is, that a spontaneous tendency to resolution and to absorption is constantly witnessed in the secondary stage; whereas it is exceptional in all tertiary products. It is, however, by no means certain that spontaneous disappearance does not often occur in the case of tertiary growths. Still it may be fairly granted that a proneness to persist, to grow, to spread, and to contaminate adjacent parts, is far more frequently witnessed in the tertiary than in the early formations. I am puzzled to find for mention any other characteristics which distinguish these two classes of symptoms. It may probably be suggested that there is difference as to the parts liable to be attacked, and as to the depth to which ulceration may go; that the symptoms in the secondary stage are all superficial—skin and mucous membranes; and that they do not spread deeply; whilst those of the tertiary stage are apt to occur in cellular tissue, periosteum, bones, viscera, or meninges. I can, however, only admit with great limitation these assertions. Deeply spreading ulceration occurs not unfrequently in the secondary or even in the primary stage; and as to the immunity of the viscera, cellular tissue, and periosteum in the secondary stage, it is far more easily asserted than proven. Some able writers on syphilis have proposed the term "period of gummata" as a substitute for "tertiary stage"; but really gummata may occur in the secondary stage also. It is true that the large gummata of the testis, cellular tissue, liver, etc., are very rare, excepting in the late tertiary periods; and hence a general impression on the subject which is, I suspect, very false. Nor is it absolutely true that even the large gummata are not seen in the secondary stage. Abundant facts on record disprove such an assertion. Distinctions which relate only to size may easily mislead.

The visceral pathology of the secondary stage might form a chapter in the history of syphilis which has not as yet been written, and for which we possess but few data. It is, however, I feel sure, a great mistake to suppose that there are none to be obtained, and this Society would, I think, be doing a most useful work in encouraging the production of carefully sifted evidence on this point. It is of course rare for patients to die during this stage, and opportunities for post-mortem examinations are not frequent. The widely spread belief that secondary syphilis, in the acquired form, has no internal pathology worth working at, has probably led to the waste of not a few opportunities which have chanced to occur. I venture to foretell that, when the facts are forthcoming, we shall change our opinions on this point very definitely. There is surely no *à priori* probability in the creed that a blood disease so severe as syphilis should produce lesions on the skin, in the mouth, and in the eye only; that it should, in fact, affect all the visible parts, and avoid all the concealed ones. The fact that the latter are concealed is probably the only reason why we believe so. The real difference between the secondary and tertiary manifestations, let me repeat, concerns probably some minor facts as to their course and tendencies, rather than the parts attacked. In the secondary stage, all the morbid processes are transitory, and tend to spontaneous cessation; whilst the tertiary ones are more persistent, and tend to destruction of the parts concerned. But, apart from mere inferential conjecture, there are certain facts already ascertained which seem to discredit the opinion that certain tissues are attacked in the secondary stage, and certain others in the tertiary one. Time will not permit of my mentioning cases, but I may briefly enumerate the following points.

1. In the inflammations of the eye, well recognised as early and secondary, we have various tissues involved: the iris, which is fibro-muscular; the hyaloid, the retina, and usually, I think, at a somewhat later period, the choroid. In the iris and in the choroid, little tumours, analogous, I suspect, in all respects to gummata, are seen.

2. When the internal ear is attacked in acquired syphilis, a very rare event, it is usually during or immediately after the secondary symptoms.

3. In two cases of death from syphilitic disease of the heart which have come under my own notice, the event in both occurred in the secondary stage (myocarditis with gumma).

4. In one of the latter cases (post-mortem by Dr. Sutton), definite gummata were found in both testes and in the spleen, although the secondary rash was still out in the patient's skin. A similar case in an infant, three months old, with secondary rash, has recently been brought before this Society by Dr. Coupland. Parallel facts have been recorded by French observers.

5. It is very common for patients during the secondary stage to complain of symptoms which would imply disease of the same tissues which are attacked later on in the tertiary period. Rheumatoid pains, often with slight swellings over bones, represent probably the nodes of a later stage. Febrile disturbance, severe headache, loss of appetite and strength, are all symptoms which the eruption on the skin scarcely suffices to explain. Transitory albuminuria is not uncommon, and jaundice may occasionally occur. We should probably see more of such symptoms were it not for the common practice in England to assail the disease with its antidote at an early stage.

6. The strongest reason for believing in the frequent occurrence of visceral and periosteal lesions in the secondary stage of acquired syphilis, is that they are very common in the corresponding stage of the inherited disease. In the latter, the secondary stage is far more severe than it is in adults, and often ends in death, and abundant opportunities are afforded to the pathologist. In infants, it is well known that visceral and bone lesions occur not very infrequently and simultaneously with the skin eruption. The best example of gummata in the liver that I have ever seen was from an infant. Mr. Canton has described in our *Transactions* a case in which these growths attained a large size, and showed all the characters which are displayed in those of the adult. To Wegner, of Berlin, we are indebted for important investigations proving the frequency of periostitis in infants; and the able work of Dr. Taylor, of Boston, just published, contains abundant evidence on the same point. When syphilitic sarcocele (gumma, and often large) occurs in inherited disease, it is always in

young children, and sometimes in infants. Nor is it possible to dismiss this class of facts by suggesting that many infants begin with the tertiary stage, and that probably those who show internal lesions are born of parents who have suffered from the disease long ago. It is, I believe, almost invariable for infants to begin with the secondary stage, whatever may have been that which their parents may have reached. And, further, in not a few cases in which infants have displayed phenomena ordinarily ranked as tertiary, they were the offspring of parents who had but recently suffered, and they themselves showed at the same time the usual symptoms of the secondary stage. It is certain, then, that—in infantile syphilis, at any rate—visceral and periosteal lesions often occur in the early periods. Let it be added that precisely tho same kind of differences are observed between the periostitis of infancy and the periostitis of some years later that we see between the transitory bone-pains of the secondary stage in adults and the more lasting nodes which follow years afterwards. In the infant, the epiphyses and adjacent bones swell and become tender; but after a while all trace of enlargement passes off, and unless—as sometimes happens to a growing bone—deformity is caused, no trace of the malady remains. Five or eight years later, very probably the same child's bones may become thickened by permanent osseous nodes.

The theory suggested as the relationship between the secondary and tertiary stages would amount to the abandonment of the latter as any true stage at all. I would emphasise the teaching of those who regard tertiary symptoms merely as sequelæ. Many authors, impressed with the difficulty of arranging in any orderly manner the various sequences of syphilis, have been willing to give up the use of the term tertiary; but it has, I think, always been found necessary to substitute it by some other in no respect more satisfactory. In Lancereaux's able treatise we have the term "period of gummy deposits." My argument is, however, that gummy deposits occur also in the secondary stage, and that in this they differ only from those of the tertiary in that they rarely attain any large size, and usually subside spontaneously. The gummata of the early period are usually small—miliary, as they have been called; those of the tertiary sometimes attain a large size. On this admission of fact follows closely a hypothesis which may prove important. Are not the tertiary gummata probably re-growths in structures left behind from the secondary stage? Such a hypothesis, if plausible, would undoubtedly help much to the simplification of the subject; it might also in the future assist in giving definiteness to our plans of treatment. The ingenious doctrine of residual abscesses, so ably propounded by Sir James Paget, may aid us in the appreciation of this suggestion. We need not, indeed, go far in any direction of pathological observation for proofs of the tendency of parts once diseased, or the site of morbid products, to relapse even after very long periods of quiet. An especially curious and apposite one is afforded by the rare cases in which indurated chancres relapse. The fact that indurations sometimes recur in parts where formerly chancres existed, without any fresh contagion, has been noticed by several writers, and, amongst others, Mr. Lee has recorded an example of it. It has, however, I think, scarcely received the attention which it deserves as an illustration of pathological law. I have under occasional observation at the present time several patients who are subjects of the relapsing chancre. Indurations, in all respects like primary sores, occur repeatedly, and without any fresh contagion, and present features which would defy the most experienced observer to diagnose them excepting by the history. They may remain for a few weeks, or even months, and may occur many years after the patient has passed through his secondary stage. Mr. Lee has suggested that they are to be regarded as tertiary gummata; but it is to be noted that they are as hard as cartilage, never slough, often disappear spontaneously, and are always located exactly in the site of the original sore. It is this latter fact which seems to me so important in reference to the theory just suggested. It may be well to add, that the facts that these relapsed sores are never followed by secondary symptoms, and that they may occur not once or twice, but half a dozen times to the same individual, conclusively support the patient's assertion, that they are not produced by fresh contagion. If an indurated chancre may, in virtue of something which has been left behind, develope afresh in its old site ten years after the primary disease, why may not a like event happen to the cell-products of the secondary stage? It is not to be forgotten that a difficulty may be suggested in reference to this hypothesis, in that the tertiary gummata occur often in parts which are not proved to have been involved in the secondary, and are absent in others in which they frequently are so. For instance, secondary iritis is common, but tertiary iritis, or tertiary gummata, in the iris are very rare. This objection is probably more apparent than real; and we must always keep in mind that tertiary phenomena of any kind are exceptional; and, further, that it is quite possible that regrowth is the most likely to happen where the original development has been but slight, and the cell-growth has been checked before its power was exhausted. It may also be fairly urged that, although exceptions happen, yet, as a rough rule, the tertiary neoplasms are met with in or near the parts which are most commonly affected in the secondary stage. The skin, the subcutaneous cellular tissue, the palate, and the throat, are their more frequent sites. It is true that the brain, nerves, muscles, and viscera claim our attention much more; but this is on account of the greater importance and interest of the symptoms produced, not because they are really the most frequent sites of tertiary gummata.

In connexion with this theory, that the tertiary growths occur in all structures which have remained over, in a quiescent state from the secondary period, it is matter of justice that I should mention the great name of Virchow. Amongst the many suggestions for which we are indebted to his labours is his well-known theory that relapses of symptoms are caused by stores of poison which have remained latent in various parts, especially in lymphatic glands, and, undergoing development after an interval, cause fresh contamination of the blood. This, however, is not quite the same idea as that the tertiary growths result not from blood-contamination in any way, but simply from local renovation of long-resting germs.

In contrasting the course of inherited syphilis with that of the acquired disease, several remarkable features at once arrest our attention. Amongst these are the severity of the secondary stage, often fatal; and, on the other hand, the frequent omission of all early symptoms; the remarkably long periods of latency which ensue after the cessation of the infantile symptoms; and, lastly, the great rarity of most of the conditions, which in the acquired form we rank as tertiary. I am warned that I must be exceedingly brief in what I have to say on these topics, and to the first two I will not further allude. The periods of latency which are often witnessed, constitute, however, a phenomenon too remarkable to be passed over. As is well known, most syphilitie infants suffer during the first few months of life from affections of the skin and mucous membranes, which are clearly analogous with the early secondary symptoms in adults. These pass off after a time, and at the end of a year, if the child have survived, it usually appears to be quite well. It may now remain for five, ten, twenty, or even five-and-thirty years without any further indication of its taint, and then may occur some definite and most peculiar affections. That there is a form of interstitial inflammation of the cornea, which when well characterised can be recognised as most certainly due to inherited syphilis, is a fact which I believe is not now doubted by any English observers. It is usually symmetrical, and, in a large majority of eases, it runs its course, and disappears spontaneously and as completely as does a secondary syphilitic rash. Nor are the facts as to the long period of latency which may precede it more in dispute than its own character, and I shall scarcely be blamed for exaggeration if I say that they are amongst the marvels of pathology. Not only may this form of keratitis occur to a grown-up person who has had no symptoms of syphilis since infancy, but it may happen also to one who has never had any symptoms before, and may yet be itself most characteristic. It is difficult to offer any explanation of the cause of this long delay, other than that it has, perhaps, something to do with the gradual development of the tissues. In connexion with it, we must remark that, however long may have been the interval of latency, interstitial keratitis is still plainly one of the secondary group. Its symmetry and its tendency to spontaneous disappearance both prove its position in this respect, and we note, besides, that certain other phenomena which sometimes occur at about the same age show similar characters. The choroiditis, and the disease of the ear which in these patients so often leads to deafness, are both of them usually symmetrical, and so also very often is tho more chronic form of periostitis. I do not mean that the symmetry is absolute. It is not the Dutch-gardener sort of symmetry, which insists on an absolute correspondence, both as to time

and features, in the two halves; but still it is sufficiently well marked to assure us of the fact. Very often one eye takes precedence by a short time of the other, and often one suffers more severely than its fellow. I have yet another and a stronger reason to urge for placing the keratitis and the inflammation of the internal ear, which are so frequent under the circumstances described, in the secoudary class—namely, that when met with in acquired syphilis they are distinctly secondary. Both are, then, very rare. Of the internal otitis I have seen but few examples, and of the keratitis but one; all of the cases, however, occurred to those who had but recently acquired their disease. Until withiu the last three months, I have always been inclined to deny that the interstitial keratitis so common in inherited syphilis had any analogue in the acquired disease. There is, however, at present in the Moorfields Hospital, under Mr. Wordsworth's care, a case which, as far as my own observation has gone, is unique. It is an instance of acute symmetrical keratitis in connexion with acquired syphilis, and it occurs simultaneously with a general papular eruption, and without doubt within a few months of the primary sore. Thus it would appear to be a fact in hereditary syphilis, that conditions which in the acquired disease would occur within the first year may be delayed for ten or twenty. Next let us note that the conditions which chiefly attract attention in the tertiary stage of acquired syphilis are almost wholly absent in the subjects of inherited taint. Large gummata in the cellular tissue, in muscles, in the tongue, in the viscera, or in connexion with the cerebral meninges, are almost unknown. The paralysis of single muscles of the eyeball, or of those of the face; the attacks of hemiplegia, and of optic neuritis, with which we are so familiar in subjects of acquired disease, are, I think, scarcely ever seen in the inherited form. The able work of Dr. Buzzard on "Syphilitic Nervous Affections" does not record a single example of such in connexion with inherited taint; and although Dr. Hughlings-Jackson has, with his usual zeal, availed himself of almost unequalled opportunities, he has succeeded in getting together but few cases—and scarcely any exactly of the kinds I have specified. It is true that epilepsy, and some forms of idiocy and insanity, and some other anomalous spinal symptoms, are met with in heredito-syphilitic patients; but, I repeat, we have very few of the cases in which symptoms are supposed to be due to gummata, whether of nerve-trunks, of the arterial coats, or of the coverings of the brain. To the last-named author we owe most of our knowledge as to the discrimination of the different anatomical lesions which cause nerve symptoms in syphilis, and it is mainly consequent on the elucidation of the subject due to his labours that I am enabled to make the statement which I now record.

It is clear that we have yet much to learn respecting the laws of hereditary transmission. As just remarked, it is exceedingly difficult to assign reasons why phenomeua which in acquired disease are crowded together in the first year or two, should in the inherited form be separated by ten or twenty. Nor can we offer any explanation of the fact that, in the late periods of the inherited disease, there is no tendency to the formation of the neoplasms so frequently seen in the acquired form. I said that the chapter describing the internal pathology of the secondary period in acquired disease had yet to be written, and I may now say the same as regards that of the tertiary period in the subjects of inherited taint. With but very rare exceptions, the latter do not appear to suffer from any maladies which tend to shorten life. I made this statement in print many years ago, and nothing has occurred since to induce me to modify it. Although I have had constantly under observation numerous adolescents and adults well known to have suffered severely from inherited syphilis, neither in them, nor in their brothers or sisters, have I encountered any special disease of important organs. They have suffered in their eyes and ears, and sometimes in the skin; but here, for the most part, their liabilities seem to end. I do not think that I have made, or known made, more than half a dozen post-mortems in such subjects; and in these, for the most part, no very noteworthy lesions were found. In two such, death was preceded by long-continued albuminuria, and suspicion occurred that possibly the very long-continued use of iodide of potassium might have had something to do with it. So meagre is our knowledge of this department of the pathology of syphilis, that our Society would, I think, do well to encourage the production before it of all evidence which may in the future be obtainable, with a view to its permanent record in our *Transactions*.

I now come to the last of the questions which is on my list for consideration—Is there any reason to believe that a taint of syphilis may mix itself with other causes of disease, and produce results of a hybrid nature? It is to scrofula and scrofulous disorders that chief reference is here made. Does syphilis in any way predispose to scrofula or tuberculosis? Vague suspicions have been entertained on this head almost since the earliest date of recognition of constitutional syphilis; and opinions, often of a very sweeping tenor, have been expressed with great confidence by many authorities. Formerly, indeed, it was a question very difficult of investigation. I would venture, however, to submit to the Society that the facts which have been accumulated during recent periods, and the new symptoms which have been placed at our disposal, justify us in believing that syphilis produces in all its stages special and wholly peculiar lesions, and that although these may easily be mistaken for struma, they have in reality nothing whatever to do with that state of constitution. It is undeniable that syphilis, and sometimes the treatment required for it, may for a time enfeeble the system, and that during this state of debility a person predisposed to phthisis or struma may experience an increase of his proclivity. In this, however, there is nothing more than what is common to all causes of enfeeblement, whether special or otherwise; and I do not think that in the instance of syphilis it amounts to much. Syphilis may be contracted by persons of the most various states of health, and by those who are the subjects of special diatheses. Strumous or tuberculous subjects, those who suffer from gout or from psoriasis, and those of extreme enfeeblement of circulation, may all in turn present us with examples of this specific disease. As a rule, we do not observe any modification of the one by the other. A common psoriasis rash may persist during the treatment of constitutional syphilis, and may remain for years afterwards, just as it did before; and the same is, I think, true iu the general way of lupus, leprosy, and other chronic maladies which show their chief symptoms in the skin.

In investigating the relationships between scrofula and syphilis, we might conveniently take as type-examples of strumous manifestations the common and fairly definite conditions of ulcers in the cornea and lupus. We have chiefly to consider the hereditary form of syphilis. A large majority of examples of chronic ulceration of the cornea (strumous ophthalmia) occur in those who show no sign of hereditary taint, but who, either in themselves or near relations, betray a tendency to other forms of scrofula. When such ulcers happen to those who are known to be the subjects of inherited taint, for the most part they run their usual course, and require their usual remedies; while syphilitic keratitis is the same malady in the strumous and the healthy. I do not say that this is invariable, but I think it is the rule. Respecting the common and interesting disease of the skin known as lupus, grave suspicions are still entertained by many who are well informed. To my own mind, however, the evidence is clear. True lupus has nothing whatever to do with syphilis, either acquired or in the first or second generation of inheritance. The evideuce on this point is of two kinds. In the first place, we hardly ever, as far as my own experience goes—I might, I think, say never—meet with common lupus in those who are obviously the subjects of inherited taint. It must be granted, however, in the fullest manner, that not all, or nearly all, of those who really inherit a taint betray it either in physiognomy, teeth, or by concurrent disease of suspicious character; and, further, that it is precisely in those who do not so betray it that we must expect the history of symptoms in infancy to be wanting. In these cases, however, it is seldom that the patient is an only child, and it is very rare for a whole family to escape. If the surgeon will widen his inquiry, and, instead of contenting himself with the original patient, inspect carefully all the brothers and sisters, he will generally find evidence that is conclusive. In this way the recognition of signs of inherited taint in one individual very commonly reveals its existence in possibly a quite latent form in three or four others. We identify not merely an individual but a whole family, and thus very much extend our area of observation. Making use of the symptoms of physiognomy, teeth, keratitis, and choroiditis, I do not think that it would be difficult in any large out-patients' institution to soon make the acquaintance of several hundred individuals concerning whom the observer might be sure that they all, in greater or less degree, inherited a taint of syphilis. Anyone who had done this would be in a position to say whether lupus occurred in more than average proportion amongst this class; and I have no doubt as to what his verdict would be. It is

difficult to leave this part of our subject without suggesting that most valuable work in this direction, not only as regards lupus and scrofula, but in reference to the late results of inherited taint, might be done by those of our members who have the advantage to be engaged in family practice. If all the cases in which family advisers are aware of the fact, either of the existence of syphilis in parents or its actual presence in offspring, or both, would carefully note all that occurs to all the children in such families, not only in childhood, but in after-life, a mass of facts might soon be collected which would help greatly to the solution of many important questions. It is far more difficult to follow out these inquiries in hospital practice.

There is yet another line of argument as regards the non-connexion between syphilis and lupus. We have said that lupus does not occur frequently in the hereditarily syphilitic, or their brothers and sisters. Next, I assert that amongst those who have lupus, and their relations, you will find, as a rule, not the slightest reason for suspecting specific taint. No one can, I think, doubt for a moment that lupus may occur under conditions which make the existence of syphilis either in parents or grandparents most improbable; nor, indeed, that it is, for the most part, under those conditions that we usually meet with it. Now, as lupus is a definite and peculiar malady, the probability is that it has a definite cause, and it is not due in one case to the tubercular diathesis, and in the next to that of syphilis.

There is no doubt that syphilis may produce skin diseases which superficially very closely resemble lupus. This occurs most frequently in the acquired form of the disease; and, in a few of these, the diagnosis is really very difficult. The essential difference in nature is, however, usually proved at once by the results of treatment. In inherited syphilis we seldom or never see anything which at all resembles the tubercular or common form of lupus. We do meet not unfrequently, however, with a disease which formerly was called phagedænic lupus, but which, like other varieties of phagedæna, is always and wholly the result of syphilis. It spreads far more rapidly than true lupus, and is easily curable by measures which would avail but little against the latter. Above all, it is easily distinguished after cure by the fact that its scars remain perfectly sound without the least tendency to the relapses which are so constant after cures of lupus.

Here, Mr. President, I must draw to an end. In attempting to fulfil the responsible duty with which the kindness of your Council has honoured me this evening, I have thought it better to avoid all subjects of mere detail, such as might seem to be more appropriate for special communications. I have kept two points chiefly before me: to try, if possible, to simplify and make more orderly our general view of the subject; and to direct attention to those parts of it which seem most to need further investigation. To my great regret, I have, under compulsion as to brevity, found but little opportunity for mention of the names of those to whom we are indebted for the facts and suggestions of which I have so freely availed myself, and of which, indeed, my paper is in some sort a running summary. Our knowledge of syphilis has, indeed, been set in the light of many minds. If we were to pass over in silence all excepting those who have contributed recent additions to our stock, and of them take only those who have worked at the departments most interesting to this Society, the list would still be very long, and the difficulty of doing justice very great. In France, Ricord, Diday, Lagneau, Lancereaux, and Fournier; in Germany, Virchow, Wegner of Berlin, Dittrich of Prague, von Bärensprung, and Zeissl; in Scandinavia, Bergh, Boeck, and Bidenkap; in America, Dr. Bumstead and Dr. Taylor—have taken foremost places; but their names do not even tithe those who have a claim on our gratitude. At home, Dr. Wilks, I believe, led the way as regards visceral syphilis; and the earliest contributions were most of them made before this Society. Dr. Murchison, Dr. Moxon, Dr. Weber, and Dr. Payne have also contributed most valuable facts. Our knowledge of the diseases of the nervous system, to which, I believe, Dr. Reade, of Belfast, was the first of our countrymen to contribute, was early helped on by some cases from the practice of the late Dr. Todd, published in the *King's College Hospital Reports;* and more recently by the able researches of Dr. Hughlings-Jackson, and the valuable works of Dr. Buzzard, Dr. Russell of Birmingham, and Dr. Broadbent. Nor must I omit to mention, as zealous and successful workers at the general subject, the names of Lee, Berkeley Hill, De Méric, and Gascoyen; nor, last, the author of the most recent and, I think, most comprehensive and able treatise on the disease that has yet appeared—Dr. Bäumler—whom we would gladly claim as, at any rate in training, half an Englishman.

The regulation of the discussion which is to follow, and the decision as to the precise scope which it shall take, will, I am glad to know, rest in much abler hands than mine. That I may not, however, fail of any part of my duty as its introducer, I have endeavoured to epitomise under the following heads some of the chief points raised in my paper. It will be seen that they are by no means closely connected; and that it will be quite competent for any speaker, if he prefer, to confine his attention to a single one, upon which he may be in possession of special facts, without adverting to the others.

Are there any facts which favour the belief that syphilis continues to be a blood disease after the cessation of all tendency to produce symmetrical symptoms?

The dearth of facts illustrating the internal pathology of the secondary stage of acquired syphilis.

The importance of all facts or arguments for or against the belief that the gummata of the tertiary stage are purely local, and result from renewed growth in formations left over from the exanthem stage.

The value of facts as to the pathology of the late periods of inherited syphilis.

I must not resume my seat without briefly but warmly thanking your Council for the honour done me in selecting me to open this discussion, and for the pleasure which it has afforded me, under the stimulus of such an important occasion, to put together the notes which I have just read.

ORIGINAL COMMUNICATIONS.

CONTRIBUTION TO ANTISEPTIC SURGERY.(a)

BEING NOTES OF CASES TREATED IN THE GLASGOW ROYAL INFIRMARY

By JAMES DUNLOP, M.D.,

Surgeon to the Royal Infirmary, and Lecturer on Surgery in Anderson's University.

[Reported by Mr. John Kendall, Surgeon and Clinical Assistant.]

Professor Spence, in his able Address on Surgery, recently delivered before the British Medical Association, in referring to the antiseptic method of treating wounds introduced by his colleague Professor Lister, and to the statement made by the advocates of the new system, that it is to be regarded as one of the most important contributions to modern practice, inasmuch as it makes wounds heal by first intention instead of going through the painful process of granulation and suppuration, says: "I can only regard such statements as arising from want of experience or misrepresentation of the simple method of treating wounds. Suppuration is not unknown under the antiseptic method, and while brilliant results in individual cases may be pointed to, it will not do to state that no deaths from pyemia have occurred under the system." And he asks—and, it is thought, with some justice—that, now that the system has had sufficient time and scope given to it in this country, statistics should be presented which would be definite and reliable, and which would enable us to judge dispassionately of its merits. As a small contribution towards the end Professor Spence has in view, the following cases have been extracted from the clinical records of wards Nos. 15, 23, and 24 in the Royal Infirmary.

Before entering upon the particulars of the cases treated during the past twelve months in these wards, it may be right to premise that while there was every confidence and faith in the theory and practice of the antiseptic method of treating wounds, yet in the early part of the year, owing to defects in the hand-spray apparatus, there was not that accuracy and care in working out the minute details of treatment which the method requires; but since the month of April last the steam-spray, which I now show you in working order, has been in constant use. And there has been every desire on the part of myself and my clinical assistants to fulfil all the conditions necessary and recommended by Mr. Lister for bringing about a satisfactory result. I may mention here, however, that I am by no means satisfied with the amount of success which

(a) Read before the Southern Medical Society, December 16, 1875.

has been obtained, for I believe that under different and more favourable hygienic conditions of the wards there would have been a greater number of recoveries and fewer deaths.

Since some of the younger members of the Society had opportunities of witnessing Mr. Lister carrying out the antiseptic measures, then found satisfactory, in the wards of our own Infirmary some years ago, considerable changes have taken place in the details of treatment. Now, with the aid of the steam-spray apparatus, the principal operations are performed and the dressings applied under an atmosphere rendered pure and innocuous by the destruction of the germs floating in the air; and while the parts to be divided are first carefully sponged with the 1 to 40 solution, the instruments to be employed—knives, saw, forceps, needles, probes, scissors, etc.—are soaking in the carbolic solution, and the fingers of the surgeon and his assistants are washed with the same, so as to prevent them being the vehicles to the wound of septic material. In addition to these measures, which are of a purely precautionary kind, we have now antiseptic catgut for ligaturing the vessels on the face of the stump, antiseptic drainage-tubes, protective antiseptic gauze, jacconet, antiseptic bandages,—all of which I now show you.

With these few preliminary remarks, I now submit to you condensed reports of the cases treated antiseptically, with the results of treatment.

Table of Cases treated Antiseptically, with Results, for Twelve Months ending November 31, 1875.

	No. of Cases.	Recoveries.	Deaths.	Cause.
A. Amputation in Thigh .	9	8	1	Diarrhœa
B. Triple Amputation .	1	1	0	
C. Double Amputation .	1	0	1	Pyæmia
D. Amputation in Leg .	1	1	0	
E. Amputation at Ankle-joint	4	4	0	
F. Amputation at Shoulder .	1	0	1	Shock in 12 h.
G. Amputation in Arm .	5	3	2	Pyæmia
H. Amputation in Forearm .	8	4	4	Pyæmia 2 Shock 2
K. Excisions of Elbow .	3	3	0	
L. Compound Fractures in Limbs	4	3	1	Pyæmia
M. Compound Fractures in Skull	4	4	0	
N. Removal of Sanguineous Cyst	1	1	0	
O. Closure of Vagina in case of Prolapsus of Uterus .	1	1	0	

A.—Amputations in Thigh, 9—8 for Disease, 1 for Injury.

The Successful Cases.

Case 1.—J. G., aged five years, was admitted on April 22 with a smash of the left foot and leg as high up as the knee. The little fellow's limb had become entangled among the spokes of the wheel of a loaded lorry, which passed over the leg, crushing both bones and soft tissues. Soon after admission, amputation through the condyles of the femur was performed under the carbolic spray. Antiseptic dressings were applied, and a drainage-tube inserted at the outer angle of the wound. On the 24th the stump was dressed under the spray. On the 26th it was again dressed, when it was found that, owing to the retraction of the tissues, two of the wire sutures had given way. To prevent further retraction, soft gauze bandage was applied to the upper part of the thigh, and two strips of adhesive plaster, after being dipped in hot carbolic solution, were used to keep the edges of the flap in apposition. The stump, which was subsequently dressed every second or third day, healed kindly, and with very little suppurative action, the small quantity of pus which did form being devoid of smell. The patient's general health remained good, and he was dismissed well on June 26.

Case 2.—A. W. L., aged four years, was admitted on March 20, suffering from strumous disease of the right knee-joint, of twelve months' duration. On examination the limb was seen to lie in a semiflexed position, and the tissues, both above and below the knee, were very much wasted. The joint was very much swollen, and doughy to the feel. On its outer aspect there was the opening of a sinus which led down to diseased bone, and from which there discharged a considerable quantity of stinking pus. The patient complained of severe pain in the joint, which was worse at night, the limb frequently starting during sleep, and it was exceedingly tender over the inner surface. As the boy's health was very unsatisfactory, operative procedure was postponed for a time, and cod-liver oil, nourishing food, and tonics were administered. On May 26, amputation was performed, but not under the spray, and the bone was sawn through immediately above the condyles. The line of incision of the flap (a Carden) was modified somewhat in consequence of the position of the sinus. On reflecting the flap, the cavity of an abscess was opened, and a large quantity of pus escaped. After the vessels had been ligatured with antiseptic catgut, the flaps were carefully and thoroughly washed with 1 to 20 solution, and thereafter sutures were applied, and the stump dressed with the usual folds of gauze. The subsequent dressings were conducted under the spray. The wound healed rapidly, and the patient was dismissed well on July 7 without having had an unfavourable symptom.

Case 3.—G. T., aged twelve years, was admitted to Ward 15 on December 22, with diseased right knee-joint. When about two years of age he had fallen, spraining his right knee. Soon after, the joint swelled up very much, and by-and-by abscesses formed, which burst and continued to discharge pus for several months. Several pieces of bone had come away through the openings, and for a time the discharges diminished, and finally the openings closed. For several years the joint remained stiff, and the leg contracted upon the thigh to near a right angle, and to a great extent he was free of pain. Recently, however, his health had become impaired, and the disease had returned in the neighbourhood of the joint. When he was admitted, the limb below the knee was found to be very small and shrunken, and very much bent. The skin around the knee-joint was red and tender, and it was marked by numerous old cicatrices. Immediately above the joint there was a sinus leading down to diseased bone. He had not been above a few days in the ward when eczema of the face and head set in, and in consequence of his low state of health he was sent to the country to the convalescent home. On April 2 he was re-admitted with all traces of the skin affection removed, but his state of health was by no means satisfactory. He was immediately put under suitable constitutional treatment, and as the confinement in the ward was seemingly acting badly, he was sent out of doors several hours daily. On April 30, amputation in the lower third of the thigh was performed after the method recommended by Mr. Spence. On May 26 the stump was nearly whole, and on June 3 the boy was dismissed well with a beautiful stump. Not only had there been very little suppuration throughout the entire treatment, but it was observed that the operation was no sooner performed than his health began markedly to improve.

Case 4.—J. M., aged six, admitted July 14, with disease of the knee-joint, of twelve months' duration. The boy was exceedingly strumous and delicate, and there were numerous sinuses around the joint, giving exit to discharge of an offensive kind. As soon as his health was somewhat improved, amputation was performed, the bone being sawn through immediately above the condyles. The joint, when examined, was found to be in a pulpy gelatinous condition, and the tissues all round the joint and in the flap (which, on account of the sinuses, was a modified Carden) were loaded with greenish-blue strumous material. The case was treated antiseptically throughout, and great care and much time were expended in the dressings. Within the first fourteen days after the amputation, three-fourths of the flap were firmly cicatrised, and by first intention; but the remaining fourth at the outer angle did not heal for many weeks,—suppuration ensued, and pus continued to be discharged in considerable quantity. It was observed that, for several days, the pus would be copious and very offensive; and by-and-by, without any special change in the antiseptic treatment, except that the dressings were changed daily, and on several occasions twice a day, the discharges diminished and became sweet again, forming no black stain upon the protective. During the month of September the boy's health had deteriorated. Several small abscesses formed about the end of the stump, which was quite whole except at one corner; but the probe passed readily down to a piece of dead bone. On October 20, the piece of dead bone was found to be loose, and it was removed: it proved to be a ring from the divided end of the bone. On October 30 the patient was dismissed with the stump perfectly whole.

Case 5.—E. W. E., aged fourteen, was admitted on July 24, with extensive disease of the lower end of the right femur, not, however, implicating the joint itself. The disease did not seem to be of a malignant character. Amputation was performed in the lower third of the thigh by Spence's method,

and in five weeks the stump was well. There was, however, some suppuration, but the pus remained sweet throughout. The girl's health very much improved after the operation. She was free from pain, slept well, and had a fair appetite. On November 6 she left the hospital with an artificial limb, and in better health than when she was admitted.

Case 6.—J. S., aged twenty, a fish-curer, was admitted on August 3, with strumous disease of the right knee-joint of fifteen months' duration. On examination the limb was seen to be very much swollen and painful. His health, too, had given way; his appetite was bad, and he had a troublesome dry cough. Soon after admission, amputation was performed at the knee by Carden's method, and within five weeks thereafter the stump was quite cicatrised. In this case there was almost no discharge, and when dismissed there was a very manifest improvement in the patient's health.

Case 7.—M. G., aged fifteen, was admitted on June 25, with disease of the left knee-joint of twelve months' duration. The joint was very much swollen and painful, and her health was giving way under the prolonged suffering. On October 23 amputation was performed, the flaps being shaped as recommended by Mr. Lister, and the bone was sawn through immediately above the condyles. On the joint being examined, there was found pulpy degeneration of the synovial membrane, with ulceration of the cartilages. There was pus also in considerable quantity both within and without the joint. This case was dismissed well on December 27, some delay in the healing process having been occasioned by retraction of the flaps.

Case 8.—Mrs. C., aged forty-five, was admitted on October 24, with disease of the right knee-joint of several years' standing. She had not been able to walk or lean her weight on the limb for several months. She had been suffering very much, and unable to obtain a sufficiency of food. On November 24, amputation was performed at the knee, the bone being sawn through immediately above the condyles. At this date (December 27) union is almost complete, and as soon as she can be measured for an artificial limb she will be sent to the Convalescent Home. Throughout the entire progress of the case there has not been an unfavourable symptom, and the discharge of pus has at all times been sweet, and at no time considerable.

Amputation in Thigh—Unsuccessful.

Case 1.—J. C., aged twenty-three, a clerk, admitted November 2, 1874. Is suffering from disease of the right knee-joint. He says that three years ago he got a fall, and that three months thereafter a sore formed just above the ankle on the inner side, which healed up under rest and poultices, but that since then his knee became swollen and painful, and several openings formed in his leg, which became very much thickened. On examination there is found much disease of the bones of the leg and of the joint. There are numerous openings leading down to diseased bone, and from the sinuses at the side of the joint there is much offensive discharge. The health of the patient has been rapidly going down. He is suffering from profuse sweatings at night, has a slight cough in the morning, and for several months he has been troubled with pain in his belly and some diarrhœa. On examination of the chest, it does not reveal the existence of tubercle. On admission he was ordered nourishing food and tonics. On the 9th, amputation was performed in the lower third of the thigh, and for several days thereafter the progress of the case was favourable. On the 14th, diarrhœa set in, which resisted every effort to check it, and he died on the 23rd from exhaustion. Up to the last day the discharges from the stump were not copious though sweet. There had been no rigor, no sweatings, and no evidence of pyæmia. On post-mortem examination the only morbid condition observed were some small ulcers in the ileum and top of the descending colon. There was no pus in the veins or internal organs.

B.—Case of Triple Amputation—Recovery.

Amputation of Left Arm below the Shoulder, Amputation of Left Leg below the Knee, and Amputation of Anterior Half of Right Foot.

J. M. L., a labourer, aged thirty years, was admitted into Ward 24 on May 2, 1875, having sustained a complete smash of the lower half of left leg, of left arm, and the front of right foot. He had been found lying on the railway near Coatbridge. According to his own statement he had been on his way home at a late hour of the previous evening, and in a state of intoxication had laid down on the railway, and while asleep several wheels of a passenger train had gone rapidly over him. He was perfectly conscious when found, and did distinctly remember that after receiving his dreadful injuries he heard the approach of another train, and succeeded in dragging himself into the narrow four-foot space which is between the up and the down lines. It was ascertained that he must have lain there not less than seven hours after the receipt of the injuries. Although quite sensible on admission and after having been conveyed six or seven miles to hospital, he was found to be labouring under severe shock: his face was pale, his skin icy-cold and covered with a cold clammy perspiration, and his pulse weak and fluttering. On account of the lacerated nature of the wounds, and their exposure to the air for several hours, it was found that only a comparatively small quantity of blood had been lost. The usual plan of treatment in such cases was immediately adopted: he was laid in a recumbent position, warmth and frictions were applied to the surface of the body, while warm drinks and a little stimulant were administered internally. In the course of a few hours he rallied wonderfully, and arrangements were therefore made for operation. He was removed to the theatre, and three amputations were consecutively performed—viz., an antero-posterior flap operation in the middle third of the left leg; a circular in the arm, the bone being divided about three inches below the left shoulder; and a Chopart in the right foot. This triple operation, which was conducted under the steam-spray, lasted two hours, and was not attended by much bleeding. On the removal of the patient to bed, and on consciousness being restored, small quantities of stimulants were judiciously administered at stated intervals, also opium at bedtime. On the following morning (May 3) it was found that he had, to a certain extent, recovered from the shock of the severe ordeal through which he had passed. His pulse was firm, though rapid. His condition was somewhat favourable for the next three days, after which time a change for the worse took place. On the 6th it was noted that traumatic delirium had set in: his pulse was quick and bounding; eyes glistening; skin hot, and covered with a profuse perspiration. The delirium assumed a wild type. The patient repeatedly called out at the top of his voice, and tossed about his injured limbs regardless of pain. Half a drachm of chloral hydrate was administered, followed by twenty grains of bromide of potassium every two hours until sleep was induced. At the expiration of a few days these symptoms passed off, and the patient became calm. His stumps were dressed under the spray every second or third day, and throughout the entire period of treatment only a small quantity of pus was found in them, and this without the slightest evidence of putrefaction, although a small slough formed on the flap over the divided end of the tibia. About the fourteenth day of treatment the patient was found to be sweating profusely. There had been no preceding rigor and no perceptible change in the character or quantity of the pus. It was feared, however, that pyæmia had set in; and for nearly three weeks the perspirations continued, accompanied by a rapid and feeble pulse. The patient, however, slept well at night, and the appetite continued fair. By-and-by the three stumps assumed a shrivelled appearance, the discharge, though sweet, greatly diminished in quantity, and several small abscesses formed—one on the top of the right shoulder, one in the left axilla, and two small ones around the right ankle-joint. These were opened as they presented themselves, and were treated antiseptically, and it was remarked that their formation was not accompanied by pain in the parts, and that they healed up very readily. But at the same time, during their continuance there was very rapid wasting of all the tissues of the body. The voice, too, became weak, and there was often wandering at night. His pulse was seldom under 120 per minute. He was often very thirsty, but there was no special aversion to food. On the whole, it may be stated that throughout the entire illness his appetite for food remained satisfactory. A mixture containing iron and quinine in large doses was taken, and an additional quantity of stimulant was administered. After the lapse of about twelve weeks he gradually regained strength, his pulse became slower and stronger, the perspirations ceased, and the stumps cicatrised. On August 13, after being in the Infirmary for 103 days, he was dismissed well; and he carried away with him an artificial limb, which had been kindly provided for him by the Ladies' Dorcas Society.

There are several points of interest connected with this case which may be referred to:—

Firstly, it is of very rare occurrence, even in our largest

hospitals, for three limbs to be removed at once, and still more rare to find such a case followed by complete recovery. This is, so far as we learn, the first case of the kind recorded in recent years in the journals of the Royal Infirmary.

Secondly, for the patient to lie such a length of time out in the cold with three mangled limbs, to have them removed shortly after admission, to suffer from traumatic delirium for a week, and afterwards from a series of abscesses, show clearly what an amount of shock can be borne and recovered from by an able-bodied man.

Thirdly, it will be observed that for many weeks there was a continuance of fever with profuse sweatings and wasting of the tissues, and that this condition was accompanied by the formation, from time to time, of small abscesses which were chronic in their character. When they began to form, the opinion was entertained that they were probably pyæmic in origin, but that the pyæmia was not of the acute or typical kind—that it was chronic in character, and not so likely to have a fatal result. It was, however, remarkable that the discharge from the stumps kept sweet, although the protective was discoloured black by it, and there had not been a single rigor preceding the high fever, the profuse sweatings, and the formation of small abscesses.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER MR. DURHAM.

Case 1.—*Enlarged Thyroid—Dysphagia—Hysteria—Relieved.*

Ann F., aged nineteen, admitted July 2, 1875. Patient is not a strong-looking girl; she has always had good health till about last January, when she lost her appetite and became constipated. Afterwards she got fulness in throat, evidently from an enlargement of the thyroid gland. She says this prevented her from swallowing solids, so that she has been compelled to take only fluids and soft substances. She has lost two stones and a half, or thereabouts, in weight since a few months ago. Menses have been absent since the swelling commenced in her throat.

On admission, thyroid presents considerable enlargement without pain. There are some enlarged lymphatics on each side. Patient was treated by her family doctor on the first appearance of the enlargement, and he continued his treatment about ten weeks; she was then treated by Dr. Mackenzie. No improvement followed. ℞. Confec. sennæ ʒj.; tinct. ferri perchlor. ex inf. quassiæ ℥j., t. d. s.

July 3.—Pot. bromidi gr. v., ext. cinchonæ liq. ♏x., sp. chlor. ♏x., syrupus ℥ss., aquæ menth. pip. ℥j., t. d. s.

5th.—Mr. Durham passed a bougie down her œsophagus, and her power of swallowing fluids was afterwards improved. Add to each dose tinct. belladonnæ ♏x.

7th.—Patient not quite so well to-day; complains of headache. Bowels inactive since Friday (five days). Can swallow better than she could.

12th.—Cannot swallow any better—*i.e.*, can manage fluids fairly well, but solids scarcely at all.

14th.—Seems better; can swallow solids a little now, but has not a good appetite. Iodide of potassium ointment with extract of belladonna to be rubbed in.

17th.—Can now swallow fairly well, but cannot eat a regular dinner. She says she has no appetite, but she is continually eating cakes and sweets. Bowels constipated.

August 4.—Says she feels better. Tinct. ferri perchlor. ♏x., tinct. ergotæ ♏x., aquæ menth. pip. ℥j., t. d. s.

September 16.—Patient feels a little better, and can swallow her food more comfortably.

18th.—Œsophagus bougie passed on several occasions; no obstruction. Patient left the hospital well.

Case 2.—*Dysphagia and Aphonia—Cystic Bronchocele—Excised—Relieved.*

Ellen B., aged twenty-two, servant, admitted June 30, 1875. Family history good. Six months ago, whilst in service in London, patient was seized with great difficulty of breathing, and was taken to the Middlesex Hospital, where she remained a month, and was treated with gargles. Whilst there she first noticed a swelling in her throat, which was quickly followed by tenderness about the hyoid bone, and difficulty in swallowing, which was first confined to solids, but gradually got worse, until she could not swallow liquids without making three or four attempts. When she left the Middlesex Hospital she went once to the Throat Hospital, Golden-square, as an out-patient, where, she says, a bougie was passed into her throat. She then went home, and was treated by her own medical man for her general health. About the middle of March she was taken to Aylesbury Infirmary. Up to this time she could speak in a whisper, but entirely lost her voice after the extraction of a tooth. At the Infirmary, caustic was applied internally to the throat, and the swelling was painted with iodine. Here, also, she had difficulty about breathing: very noisy respiration (except during sleep) and spasmodic attacks of dyspnœa. The swelling has gradually increased in size, and the spasmodic difficulty of breathing has continued.

On admission, the patient is dull-looking, and rather thin. The swelling, which is globular, extends from the top of the sternum to nearly the thyroid cartilage; it is bounded on the right side by the right sterno-mastoid, and on the left it extends beneath the left sterno-mastoid, and rises with the larynx on swallowing.

July 1.—Galvanism applied to muscles of neck and face, after which patient could articulate a few words.

3rd.—Patient has been galvanised once, without any apparent result; at present she cannot vocalise a word, and only swallows liquids with difficulty. Is comfortable, and in fair health.

6th.—No apparent improvement; swelling about the same.

7th.—Patient about the same; a bougie was passed yesterday without any apparent result.

8th.—Patient up, and says she is better. She seems to swallow with less difficulty, but cannot speak.

14th.—Going on well. Patient seems to swallow better, but cannot articulate a syllable, or pretends she cannot.

17th.—Patient can laugh heartily and noisily, and can swallow fairly well, but seems to have made up her mind not to speak.

18th.—Ext. belladonnæ ʒj., ung. pot. iodidi ʒij.; pro app.

19th.—Patient is again in bed with headache, and seems quite ill.

24th.—Ung. staphysagriæ; pro app.

August 10.—ACE in theatre. Incision four inches long over tumour. Superficial tissues dissected back, and tumour fully exposed; it was apparently growing from isthmus of thyroid; it was easily dissected out and removed with the left lobe of thyroid. There was very little hæmorrhage, the vessels being twisted or ligatured as the operation proceeded. Edges united by sutures, and drainage-tube inserted; dressed with salicylic wool. Tumour on section consisted of thick-walled cyst, containing an ounce and a half of brownish fluid, with plenty of cholesterin plates floating about. The walls composed of thyroid tissue undergoing cystic degeneration; some of the firmer parts showing little alteration from normal structure.

11th.—Temperature 100·2°; pulse 108. Patient articulated distinctly several words.

19th.—Upper half of wound healed. The lower half is filling up with healthy granulations; no inflammation around. Can talk very well and swallow well.

September 6.—Had pain from wound last night, and a great deal of discharge. Temperature and pulse normal.

13th.—Wound in neck nearly well. Patient does not sleep very well at night.

23rd.—Wound healed. Patient much better. Neck covered up in leather to keep her head up, which she persists in holding down in flexed position.

24th.—Patient left the hospital, with leather round her neck to support her head.

Flies indicating Glycosuria.—M. Mardier notices a little fact that may have its uses. In vessels in which he had put urine aside for examination, and which were exposed to the air, he was struck at finding a considerable number of drowned flies. Having examined these specimens, he found sugar in them, which he had not suspected. The flies do not touch urine that contains no sugar, so that their presence is a probable sign of glycosuria.—*Révue Médico-Photographique*, October.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, FEBRUARY 5, 1876.

THE DISCUSSION ON SYPHILIS AT THE PATHOLOGICAL SOCIETY.

In selecting a surgeon to open a discussion on syphilis at the Pathological Society it would have been hard for the Council to have fallen on a better man than Mr. Hutchinson. Though a profound syphilographer,—a man of wide experience with syphilis in all its stages,—Mr. Hutchinson is no specialist, but, before all other things, a surgeon. This is not the place to speak of Mr. Hutchinson's general acquirements, but we may at once say they are such as to insure his taking a wide view of any subject with which he deals, whilst, at the same time he holds it in a vigorous grasp. There was, indeed, nothing more remarkable in Mr. Hutchinson's address than these very qualities; there was no looseness or discursiveness of thought, yet he dealt entirely with generalities, hardly ever quoting a case in the course of an address which lasted an hour. We wish we could with equal force and freedom summarise his statements—that, we fear, is impossible; but we shall try to give the impressions of a listener of average intelligence somewhat familiar with the subject, though they may hardly be such as Mr. Hutchinson would have wished us to carry away. We do not, in the meantime, desire to criticise, but to abstract.

It is not often that Mr. Hutchinson can be accused of obscurity, but in his definition of unicity as regards syphilis he was wanting in that clearness so necessary for such purposes. Meantime, putting that on side, the author proceeded to point out that in almost every respect syphilis corresponded with an exanthem, save for irregularity as to the evolution of its various forms of eruption; but this, he shrewdly hinted, might be due to the almost universal use of antidotes, especially mercury, in this country. He would also limit the true period of syphilitic infection to the primary and secondary stages, treating the tertiary period as one of sequelæ merely. He would, moreover, take as a test of the period of true blood-poisoning the symmetry of the various forms of eruption. There is, then, a period when syphilis ceases to be transmissible from one person to another, though still transmissible from parent to offspring. True a phagedænic sore may exist in the tertiary period, and equally true that such a sore may give rise to phagedæna elsewhere; but phagedæna is phagedæna, and not syphilis, though syphilitic affections are exceedingly prone to terminate in this form of molecular destruction.

From Mr. Hutchinson's point of view it was necessary to prove that the kind of symptoms seen in the stage of eruption, or the secondary stage, and in that of sequelæ, or the tertiary stage, are similar. This he proceeded to do by showing that deep ulcerations might be seen in the secondary as well as in the tertiary stage. Again, he showed that though the secondary affections were mainly confined to the skin, eyes, and mucous membranes, these were simply the parts where the manifestations were most easily seen; and there was reason to believe that, in the internal organs, lesions similar in kind to those found in the more advanced stages were to be detected if carefully sought. For his reasons we must refer the reader to the paper itself. On this foundation, however, Mr. Hutchinson raised the most novel, and certainly not the least interesting, point in his paper—viz., that the gummy tumours so characteristic of the final stage of syphilis, or, as he would say, of its sequelæ, were simply recrudescences from the germs of similar lesions which occurred in the secondary stage, and had, it may be, for many years lain dormant, but not dead.

Speaking of inherited as contradistinguished from acquired syphilis, the author insisted on the great severity of the secondary stage in the former, sometimes even causing death; the rarity of tertiary symptoms, and the occasional absence of all early symptoms, together with the remarkable length of time all symptoms may be deferred. In the last instance he alluded to the occasional appearance of syphilitic keratitis, it might be after twenty years, and with no earlier symptoms notable.

Mr. Hutchinson's last proposition was that there was no necessary connexion between syphilis and scrofula. Of course syphilis might exist in a scrofulous subject, but syphilis is syphilis, and scrofula is scrofula. As good examples of the characters of the two he referred to the kind of keratitis which occurred with each. Again, as regards lupus, he insisted that lupus was a tubercular disease, and though certain forms of syphilitic eruption might come to resemble lupus, the two forms of disease were essentially different in their history and in their mode of treatment. He concluded thus: "That I may not fail of any part of my duty, I have endeavoured to epitomise under the following heads some of the chief points raised in my paper. It will be seen that they are by no means closely connected; and that it will be quite competent for any speaker, if he prefer, to confine his attention to a single one, upon which he may be in possession of special facts, without adverting to the others:—Are there any facts which favour the belief that syphilis continues to be a blood disease after the cessation of all tendency to produce symmetrical symptoms? The dearth of facts illustrating the internal pathology of the secondary stage of acquired syphilis. The importance of all facts or arguments for or against the belief that the gummata of the tertiary stage are purely local, and result from renewed growth in formations left over from the exanthem stage. The value of facts as to the pathology of the late periods of inherited syphilis."

The subsequent discussion was not interesting. It was perhaps difficult for the next speaker (Mr. Henry Lee) to criticise fully a speech of such length and so full of matter as Mr. Hutchinson's. As it was, he contented himself with contra-

vening the opinion that the tertiary was no true stage of syphilis; if not a blood disease, how then could a parent beget infected children? He also gave his definition of the different kinds of sores—one kind where a good deal of deposit took place, and where there was no great tendency to suppuration, this was the true infective sore; secondly, where no new matter was deposited, and a strong tendency to suppuration existed, the ordinary soft sore; and, thirdly, an infecting sore, where, though new matter was deposited, it tended to degeneration and suppuration, but was, after all, an infecting sore.

Of the next and only other speaker we have but little to say. Dr. Drysdale spoke *more suo*. He filled up an odd quarter of an hour, but we will spare our readers an imperfect recapitulation of what could have been well spared by the meeting.

CHEMISTS AND COUNTER PRESCRIBING.

An action was decided in the Exchequer Division of the Supreme Court of Judicature, last week, which is of great importance to the medical profession, as it establishes in the most authoritative manner that the members of the profession have rights and privileges which can neither be transferred to, nor assumed by, other individuals.

The nominal plaintiffs in the case were the Master, Wardens, and Society of the Art and Mystery of Apothecaries of the City of London, and the defendant a chemist and druggist, named Nottingham, who is, or was up to a recent period, carrying on business at 223, High-street, Shadwell. Although nominally the Apothecaries' Society were the plaintiffs, it should be stated that the proceedings were instituted and carried on at the sole risk and expense of the East London Branch of the Medical Defence Association.

We believe we are correct in stating that for some years past Mr. Nottingham has, in addition to transacting the ordinary routine business of a chemist and druggist's establishment, practised rather extensively as a surgeon and apothecary—visiting, prescribing, attending midwifery, etc., as if he were duly qualified. Some seven or eight months ago, the attention of the East London Branch of the Medical Defence Association was directed to his practices; evidence was collected as to his visiting and prescribing in several instances, and the consent of the Apothecaries' Society obtained to his being sued in the County Court under the provisions of the Apothecaries Act, 1815. Proceedings were accordingly taken against him; but before the day appointed for the hearing he paid the full penalty, £20, into court.

Having received a practical lesson that the kind of work he had been doing could not be continued without risk of prosecution, Mr. Nottingham adopted a device which does him some credit as a tactician. The plan he adopted was to conclude a deed of partnership with a Mr. C. W. Waylen, a duly qualified practitioner, by which it was arranged that they were to carry on jointly the professions of surgeons and apothecaries, together with the business of a chemist and druggist. Whether the partnership existed except on paper we cannot say; we have seen a copy of the deed of partnership, but, as far as we can learn, Mr. Waylen has taken no active part in the business for some months past, and attempts to discover his whereabouts, so as to secure his presence in the witness-box, have failed. Unfortunately for Mr. Nottingham, this "unholy alliance," as such compacts between qualified and unqualified practitioners have been termed, failed to afford him that protection he hoped to insure.

After the first prosecution, Mr. Nottingham appears to have ceased visiting patients at their homes, although his assistant (also unqualified) is known to have done so in several cases, but he himself still continued to prescribe for patients "over the counter." Having obtained evidence of some cases in which Mr. Nottingham had prescribed medicines, the Defence Association, with the sanction of the Apothecaries' Society, instituted proceedings in the Exchequer Court, and the case came on for hearing before Mr. Baron Bramwell and a jury, last week. For the defence, it was contended that the 28th section specially exempted chemists and druggists from the operation of the Act, that they had a perfect right to prescribe for patients "over the counter," and that the mere fact of a chemist giving kindly and gratuitous advice to a patient, when giving him a bottle of medicine, would not constitute an offence within the meaning of the Act.

The prosecution, however, maintained that, although the 28th section stated "that nothing in this Act contained shall extend or be construed to extend to prejudice or in any way to affect the trade or business of a chemist and druggist in the buying, preparing, compounding, dispensing, and vending drugs, medicines, and medicinal compounds, wholesale and retail," it gave no power to a chemist to prescribe remedies or to give medical advice. It had been laid down that a chemist could sell any drugs or combination of medicines asked for by a customer, or dispense any prescription, but if he selected the remedies himself he assumed the functions of a medical man, and rendered himself liable to the penalty of £20, as provided by the Act. The defendant was called, and stated that in all serious cases parties calling at his establishment were attended by the regular practitioner who was in partnership with him, but he admitted that in minor cases he had himself inquired the nature of the illness, and had given the medicines he thought best suited to the case he was dealing with. In summing up the case to the jury, Mr. Baron Bramwell remarked that the Act was strict in its terms, and whether they liked it or not the jury were bound by it. If a man entered a chemist's shop and asked for something to cure a bad headache, and the chemist gave him a draught, he would without doubt infringe the terms of the Act, although it would be very unreasonable if the Apothecaries' Society were to interfere in such a case. The jury returned a verdict for the plaintiffs, and his Lordship refused to give leave to move for a new trial.

We quite agree with Mr. Baron Bramwell, that it would be unreasonable to interfere with a chemist who occasionally gives a draught for a headache or other trivial complaint; but the present instance was not one of that character. The defendant, there is no doubt, did a large business of the class known as "counter prescribing"; and as such proceedings on the part of chemists and unskilled persons are a growing public evil, the Medical Defence Association are doing a public service in endeavouring to put a stop to the practice. The result of the above case will show chemists and druggists that if they trespass beyond their legitimate province as dispensers and vendors of drugs they render themselves liable to a heavy penalty, and the expenses of a very costly prosecution. Of Mr. Waylen we have as yet said nothing, but is not his conduct, in apparently thus entering into partnership with an unqualified practitioner, unprofessional? If it can be shown that he actually concluded a deed of partnership with Mr. Nottingham, the General Medical Council might perhaps be induced to at least give him a warning as to the consequences that "unprofessional" conduct may lead to?

THE TREATMENT OF RHEUMATIC FEVER WITH SALICYLIC ACID.

Like all new remedies, salicylic acid is being tested in a number of different diseases, and among these of course rheumatic fever occupies a prominent place, not only on account of its frequency, but also of its markedly febrile character. The results which have been obtained in Prof. Traube's wards at Berlin certainly afford not a little encouragement to

indulgence in a hope that in salicylic acid a real remedy for acute rheumatism has at last been found. We extract the following details from a paper by Staff-Surgeon Stricker, in the *Berliner Klinisehe Wochensehrift* of January 3, 1876. For several months all the cases of acute rheumatism in which the local symptoms were strongly marked (fourteen in all) were treated with salicylic acid. The preparation used was, however, not the ordinary impure commercial acid, but one that by repeated crystallisation had been rendered almost perfectly pure. Thus prepared it consists of shining white needles, which have no smell, and dissolve completely in water and alcohol so as to form a clear solution. This pure acid can be given internally in considerable doses without any of those unpleasant results which have followed the use of the commercial acid, which probably owes its caustic properties to the presence of other substances—for instance, carbolic acid. The pure acid only excites some dryness in the mucous membrane of the mouth and pharynx, followed by an increased secretion from their surfaces. This inconvenience can, however, be obviated by giving the acid in half-gramme or gramme doses every hour, in the form of powder, and enclosed in a capsule; and in the treatment of rheumatic fever the administration is continued until the joints which were previously affected can be moved without pain. To quote Dr. Stricker's words, "All the patients thus treated were not only relieved of their fever, but also of the local symptoms—*i.e.*, the swelling, redness, and especially the painfulness of their joints,—within forty-eight hours; most of them even within a much shorter period." The largest quantity of pure salicylic acid which was found necessary to produce this effect was fifteen grammes, and the smallest five grammes; but that even larger quantities can be taken internally without injuring the digestive apparatus is proved by the fact that one patient actually took twenty-two grammes in the course of twelve hours through an excess of zeal on his own part; but, nevertheless, his tongue became clean and his appetite returned in the course of this vigorous drugging. As far as Dr. Stricker's observations go, the more acute the case the better the action of the acid. He finds it best to begin the treatment in the morning, for then its effects are generally so decided by the evening that it is unnecessary to disturb the patient's rest to give him his medicine. The general phenomena which were observed to follow large doses of the acid were copious perspiration, ringing in the ears, and slight deafness, and in two cases the patients became more than usually lively. Dr. Stricker does not pretend to express any opinion at present on the effect exerted by the acid on the cardiac complications of rheumatic fever. Most of his cases either had old valvular disease or else were suffering from a recent endocarditis at the time of their admission. The details of five cases are appended to Dr. Stricker's paper, and the temperature-sheets are given in graphic form in four of them, and we can only say that they confirm in a most striking manner what has been above stated as to the value of the salicylic treatment.

A further testimony in the same direction is that of Dr. L. Riess (*Berl. Klin. Wochenschrift*, December 20, 1875, "On the Internal Use of Salicylic Acid"). He speaks of the results obtained in acute rheumatism as unexpectedly favourable, and points out that the action of the salicylic acid must be more than purely symptomatic, since in some cases a single dose not only permanently reduced the temperature, but also was followed by general improvement in the patient's condition. The large opportunities which our London hospitals afford for the observation of rheumatic fever should certainly be utilised for the further investigation of the value of salicylic acid.(a) We again remind our readers that the acid used must be chemically pure.

(a) *Pure* salicylic acid can be obtained from the Chemische Fabrik auf Actien (vormals E. Schering), Berlin, N. Fennstrasse 4.

THE WEEK.

TOPICS OF THE DAY.

A RECENT report which has been presented to the Board of Works for the Parish of St. Pancras by the chief surveyor of that district calls for more than passing attention. It appears that on the occasion of the late heavy snowfalls in the metropolis, salt was largely used in the St. Pancras district as a means of clearing the roads for traffic. It produced a liquefaction of the snow, greater in proportion to the amount of the traffic. The effects on the paving of the foot- and road-ways is attentively considered in this report; but the surveyor frankly remarks that the effect of the salt on pedestrians and horses will *probably* require careful consideration. The temperature of the liquid slush was far lower than that of the snow—a fact sensibly perceptible on walking from a street where salt had not been applied to one where it had been used. As a test, a stout pair of boots used on the occasion of the first salting had not yet got thoroughly dry, and now quickly became perceptibly moist whenever used in walking on damp pavement. It is further quite certain that walking through the slush in crossing roadways caused a chill feeling even with well-shod, hearty adults, and might therefore readily be supposed to cause serious results to poor women and children, ill fed, scantily clothed, and wearing boots or shoes not adapted to resist even ordinary moisture. The surveyor suggested that on future occasions either more labour should be employed to clear the streets of the pernicious liquid, or the use of sweeping-machines should be adopted for the purpose. We agree with him. It would be simply monstrous if the different parishes of the metropolis were allowed to get over their difficulties of freeing the roadways of snow by adopting a course which would swell the death-rate (always high at such a time) to an unprecedented extent.

We have in our time heard of various tricks to evade subjection to scholastic discipline, but all have been thrown into the shade by the action of a young gentleman who last week presented himself before the Marylebone magistrates with a mild request that he might be accommodated with an order for admission to a good lunatic asylum, as he had been going out of his mind for some time past. As an evidence of this, he adduced the fact that since his return home from school he had broken a china teapot and a mouse-trap. He further maintained that he had been working hard at school, and was not able to bear it; had tried to study, but could not do so, as he was in the habit of staring about the school-room instead of attending to his lessons—a trait frequently observable, we fear, in scholastic youth of the very soundest intellect. An application to the father of the youth elicited the fact that his son did not want to go back to school, and that his appeal to the magistrate was simply a *ruse*. The magistrate consequently declined to interfere, although the applicant persisted in the necessity of his being placed under restraint.

Last week the members of the City Commission of Sewers held a meeting, at which it was decided to adopt a scheme for the improvement of Holyday-yard, situated on the south side of Ludgate-hill, under the Artisans' and Labourers' Dwellings Improvement Act, this spot having often been designated as one of the "plague spots" in the City. The chairman said that Holyday-yard was only one out of many spots in the City upon which the Commission had it in contemplation to operate, and they intended loyally and thoroughly to carry out the provisions of the Act, which had conferred great privileges on the Corporation of London. After some slight opposition, it was decided that a petition should be presented to the Home Secretary, praying that a provisional order may be made authorising the scheme of the Commissioners to be carried into effect, and a deputation was appointed to present it to Mr. Cross.

A correspondent writing to the *Times* points out that while the burials question is being discussed one most important point has been overlooked—viz., the condition of the generality of country churchyards. If these burial-places were examined by competent sanitary authorities, he asserts, a large number would be condemned, some because they are overcrowded, others because they are dangerous to health from too close proximity to inhabited houses, or from their contaminating the water-supply. In place of these condemned churchyards, he observed, isolated cemeteries should be provided with all speed, and mortuaries should be built in the same, to prevent that dreadful crowding together of the living and the dead which too often occurs in the cottages of the poor. According to our own experience of the cemeteries in our suburbs, isolation is out of the question; the formation and opening of a new cemetery is a signal for enterprising builders to set to work at once to surround it with houses of all descriptions.

The arm of the law is likely at last to interfere to some purpose with the practices of the "Peculiar People." An inquiry was held last week before the Coroner for North Essex, touching the death of a child, whose father, one of the "Peculiar People," deposed that he had not called in medical aid because he was ruled by the Lord. He had called in the elders of the church, who laid their hands upon the child, and anointed it with oil. The nurse in attendance upon the deceased was of the same persuasion, and informed the Coroner that "she considered it wrong to call in a doctor, because she believed in the living God." A surgeon, who was called, being of opinion that the child died of whooping-cough, which would have yielded to medical treatment, the jury returned a verdict of "Manslaughter," and the father was committed for trial on the Coroner's warrant. We fear that even a severe term of punishment will hardly restrain the "peculiarity" of these people. Most likely they will count themselves as persecuted on account of their faith, and will indulge in the glory of martyrdom.

An important conference under the auspices of the Lancashire and Cheshire Association for controlling the escape of noxious vapours and fluids from manufactories was held at Warrington on the 25th ult. The object of the meeting was to induce the Government, if possible, to put a stop to the wholesale devastation and destruction chemical works are alleged to be causing in the country. Colonel Egerton Leigh, M.P., presided, and there was a large attendance of Cheshire landowners. The speakers asserted that human, animal, and vegetable life was endangered by proximity to chemical works. For twenty years, around Widnes and St. Helen's, where such works abounded, there was not an oak which was not affected by them. What was required for diminution of the evils was a better system of inspection, and laws to compel manufacturers to consume or destroy their own vapours. Resolutions were passed deploring the present condition of various parts of the country, and a deputation was appointed to wait upon the President of the Local Government Board, praying him to take such measures as will prevent the injury to health and destruction of property caused by these vapours. The course taken by the Duke of Northumberland in asking for a commission of inquiry into the production of noxious vapours was warmly approved, and the best thanks of the meeting were tendered to his Grace for the interest he had taken in the subject.

A Mr. John Blackwood, of Trevor-square, Knightsbridge, was summoned at the Clerkenwell Police-court for having conveyed his daughter in a public vehicle when she was suffering from an infectious disease. The Surgeon at the Fever Hospital proved that the patient brought in the cab was suffering from scarlet fever in an early stage. The cab had to be disinfected before it was again allowed to be used by the public. The defendant in his defence said he had no intention to infringe the law, for he had employed the hospital-ambulance to convey other members of his family who had, unfortunately, been attacked with the fever; in this case he contracted with the cabman to convey his child to the hospital for 10s.—a sum which, at the time, he considered sufficient to pay for the disinfecting of the cab. The magistrate remarked that he considered this a bad case, and ordered the defendant to pay a fine of £5 and 17s. costs.

The President of the Local Government Board has been making a tour in the West Riding, with the object of acquainting himself practically with the difficulties connected with the purification of streams in the manufacturing districts. At Bradford, in company with Mr. Ripley, M.P., the Mayors of Leeds and Bradford, and other gentlemen connected with the Bradford Corporation, he visited various works in the district, and observed the fouling of the River Aire at different points. The Corporation sewage-works were visited, and Mr. Sclater-Booth witnessed the process and the result of the purification of the sewage.

An instrument has just been invented for accurately determining the velocity of sewer-gas, so that the result of the steps being taken for drawing out the gases and ventilating the sewers in large towns can be definitely ascertained. In the parish of Eltham, Kent, a velocity has been attained of a mile per minute; and it is believed that a still greater extracting power will shortly be effected. Application is being made to the Metropolitan Board of Works to get a clause inserted in some Bill in Parliament to compel the builders of all houses to be erected in future in the metropolis to construct a ventilation-pipe, to be carried from the drain of the house above the roof of the building; so that the sewer-gases, instead of entering the house through the drains, will be carried off at the top of each house.

A meeting of medical men interested in the question of district nursing was held last week in the Central Home of the Metropolitan and National Nursing Association for Providing Trained Nurses for the Sick Poor, Bloomsbury-square, the Duke of Westminster in the chair. During the course of the proceedings, Dr. Tom Robinson, the Medical Officer of Health for the Holborn Union, and Dr. Steele, the Resident Medical Officer of the Bloomsbury Dispensary, testified to the great assistance derived from the presence of the nurses of the Association in the district during the last three months. Both gentlemen had noticed the change evident in the rooms of the poorer patients attended by them. After a discussion, the meeting closed with a vote of thanks to the chairman.

The sum collected in Liverpool on Hospital Sunday exceeds that for 1875 (which amounted to £7462 17s. 2d.) by about £100. The Hospital Saturday collection has been postponed till March.

REPORTS ON MILITARY GYMNASIA.

From the annual reports which have been recently furnished to the Inspector of Military Gymnasia we gather that further proofs have been given of the continued practical utility of these institutions, which have been gradually introduced into our military system within the last twelve years. The difficulty of obtaining recruits is a common topic of discussion, but few persons are aware of what is required to make them serviceable as soldiers after they have been secured. For the most part, the recruits who are derived from the manufacturing centres are feeble lads with narrow chests, while those obtained from the country, though a little broader in the chest, are singularly devoid of muscle. Recruits join between eighteen and thirty years of age, and are expected to measure not less than thirty-three inches round the chest. Exceptions are, however, made in favour of youths in other

respects eligible, since the course of physical training to which they are subjected on joining seldom fails to bring them up to the required standard. Every recruit is obliged to attend the gymnasium for an hour a day for three months, and after he has mastered his preliminary drill, he is further required to attend the gymnasium three days a week for the next three months. He may then attend as a volunteer as often as he likes, in the evening. On commencing the course of training the recruit is weighed, and his height and the thickness of his fore and upper arms are carefully measured. The same process is gone through on the completion of the course; and the results of the training on the muscular development of the recruit are often very surprising. On an average the increase in the measurement of the chest is an inch and a half, of the forearm half an inch, and of the upper arm three-quarters of an inch; sometimes, however, the chest is found to expand under the treatment beyond two inches. It almost invariably happens also that, notwithstanding the copious perspiration which is produced, the recruits actually gain in weight. The average increase is three pounds, but an increase of six pounds is by no means infrequent. The course of instruction is gradual: the novice is first required to pull upon an iron bar; he is next practised with the backboard; and the dumb-bells afford exercise to the whole body. He is afterwards taught to perform the escalade, and to walk along giddy heights. As the education of the gymnasia materially increases the appetite of the recruits, it has been suggested by several doctors that the rations of the men under training should be increased—suggestions which, in furtherance of the development sought to be established, we should think the military authorities would do well to attend to.

MEDICAL SOCIETY OF LONDON.

Mr. Wm. Adams exhibited, at the meeting of the Medical Society on January 24, a case of anchylosis of both elbow-joints in the extended position, successfully treated by subcutaneous division of the humerus in one, and forcible extension in the other. The patient, T. C., aged sixteen, was admitted into the Great Northern Hospital on May 29, 1875, with anchylosis of both elbow-joints in the extended position, the result of rheumatic fever three years and a half previously. The articulations of both the upper and lower extremities had been attacked, and he was confined to his bed for three months. In June, 1872, both elbow-joints were forcibly bent under chloroform by a surgeon in America, but the treatment was not persevered in, nor were the arms retained in the flexed position. In June, 1875, Mr. Adams succeeded in bending the right arm under chloroform—an operation which was several times repeated; and at the present time a useful amount of motion exists at the elbow-joint, with the arm in a flexed position. In the left arm repeated attempts at forcibly bending the elbow-joint, under chloroform, failed, and in preference to excising the joint, Mr. Adams, on November 3, 1875, performed the operation of subcutaneously dividing the shaft of the humerus just above the condyles, in the same way as he has adopted in the subcutaneous division of the neck of the thigh-bone. The forearm was then flexed to a right angle, and placed on a rectangular splint. Very little swelling and inflammation followed, and no suppuration occurred. Passive motion was commenced in a fortnight. Eight weeks afterwards, motion seemed rather to diminish than increase, and on January 12 Mr. Adams bent the joint more freely under chloroform. Passive motion has been continued daily, after the use of the local vapour-bath, in the hope that voluntary motion may be maintained. In this case both wrist-joints were also anchylosed, but the right joint had been successfully forced, under chloroform, in an orthopædic hospital a few days before his admission to the Great Northern. All attempts, however, to bend either of the elbows or the left wrist had failed. A very useful amount of voluntary motion now exists in the right wrist, in which it has not been necessary to repeat the operation, and Mr. Adams has also successfully bent the left wrist, in which it is hoped that motion will be maintained. Mr. Adams, in his remarks, referred to the pathology of rheumatic anchylosis, observing that these cases were the most favourable for the operation of forcible movement under chloroform, in consequence of the absence of any destructive disease in the articulation; in rheumatic cases the stiffening depending upon inflammatory thickening of the capsular and other ligaments of the articulation. The possibility of restoring motion after an interval of three years is demonstrated by the present case. With regard to the subcutaneous division of the humerus just above the left elbow-joint, Mr. Adams remarked this was the first case in which such an operation had been performed. The arm had been at once brought into an improved and useful position, but whether motion would be permanently maintained must remain doubtful. Mr. Adams promised to report the result to the Society. As a general result of treatment up to the present time, motion in the right elbow and both wrists has been restored, and will certainly be maintained; whilst the left arm has been brought into a useful position.

THE ROYAL COLLEGE OF PHYSICIANS.

At the Comitia of the College, held on January 27, some important communications on the subject of leprosy were received from the Colonial Office and from Mr. Thomas Hogg, New South Wales. The Leprosy Committee was re-appointed, and the communication referred to them for examination and report. The report on the title of "Doctor" was taken into consideration, and, after much discussion, adopted in an amended form. The existing by-law on the subject, which forbade any Fellow, Member, or Licentiate to assume the title of Doctor of Medicine, or use any other name, title, or designation or distinction implying that he was a graduate in medicine of a university, unless he was one, was rescinded; and very rightly, as the College possesses no legal power to enforce it. But the following by-law was proposed instead of it, and passed the first reading:—"That no Fellow, Member, or Licentiate of the College is authorised or entitled, by virtue of any diploma or licence of the College, to append to his name the title of Doctor of Medicine, or the initial letters of M.D., or any other letters indicating that he is a graduate in medicine, unless he has obtained a degree in medicine from a university legally entitled to confer such a degree, and which is recognised by the College." This by-law, it will be observed, does not forbid what the College cannot legally prevent; it only declares that no diploma or licence of the College confers a degree in medicine. So far it is better than the old one, and, if it only did that, there would be no grave objection to it. But, unfortunately, as we venture to think, it does much more than that. If it means anything, it surely means, or implies, that Fellows, Members, or Licentiates of the College sometimes do, or may, append to their names or supplement their names with the initials M.D. or M.B., though they possess no medical degree. We confess we never heard of such a thing being done by any member of the profession, and it appears hardly courteous, to put it in the most deferential manner, to suspect any son of the College of even thinking of doing it. The courtesy-title of doctor, so commonly given to those who practise medicine and belong to a college of physicians, is, no doubt, often used by men who have no degree in medicine, but we never knew any such men add to their names the initials of "M.D." or of any other medical degree. They have, however, no legal right to the title of doctor, and we are therefore glad to learn that the College rejected a proposal to enact that the courtesy-title of

"Doctor" should be given to non-graduates, Fellows, and Members. It is one thing to follow common usage in giving a courtesy-title, but to formally sanction its use in official documents would be quite another matter.

BEQUESTS TO LIVERPOOL CHARITIES.

The estate of Mr. Roger Lyon Jones, who died on January 1, 1875, and left nearly the whole of his property to the Liverpool Charities, the disposition to be at the discretion of his two executors, has just been in great part apportioned. By this apportionment £220,000 is to be handed over to fifty-three local charities, of which sixteen are medical. The money in each case is to be permanently invested. There still remains a balance of about £66,000 for future allotment, most of which is as yet unrealised.

The following is a list of the charities, and the amounts allotted to each:—The Royal Infirmary, £25,000; the Royal Southern Hospital, £20,000; the Northern Hospital, £20,000; the Bluecoat Hospital, £10,000; the Seamen's Orphanage Endowment Fund, £10,000; the Liverpool Female Orphan Asylum, £10,000; the Liverpool Male Orphan Asylum, £10,000; the Liverpool Infant Orphan Asylum, £10,000; the Liverpool Dispensaries, £5000; Infirmary for Children, £5000; Stanley Hospital, £5000; District Nurses' Institution, £5000; Convalescent Hospital, Woolton, £5000; the *Indefatigable* training-ship, £5000; Liverpool Church of England Scripture Readers' Society, £5000; Liverpool Church of England School Society, £5000; Eye and Ear Infirmary, £3500; Wright's Institution, £3500; Governesses' Benevolent Institution Annuity Fund, £3500; Hospital for Consumption and Diseases of the Chest, £2500; Cancer Hospital, £2500; Infectious Diseases Hospital, £2500; Homœopathic Dispensaries, £2500; Church Aid Society, £2500; Home for Incurables, £2500; Skin Diseases Hospital, £2000; Lying-in Hospital, £2000; Workshops for the Blind, £2000; the Blind Annuity Fund, £2000; Deaf and Dumb Annuity Fund, £2000; Aged Seamen's Widows Fund (Mercantile Marine Association), £2000; Liverpool Shipwrecked and Humane Society Annuity Fund, £2000; Liverpool Ladies' Parochial, Bible, and Domestic Mission, £2000; Liverpool Curates' Aid Society, £2000: Liverpool Pastoral Aid Society, £2000; Clergy Orphans' School, Warrington, £2000; Juvenile Reformatory, £2000; Industrial Schools, Everton-terrace, £1500; Kirkdale Industrial Schools, £1500; Holy Trinity Industrial Schools, £1500; Indigent Blind Asylum, £1000; Medical Mission, £1000; Girls' Industrial School, Toxteth-park, £1000; Female Penitentiary, £1000; Benevolent Penitentiary, £1000; The "Home," £1000; the Magdalen Institution, £1000; the Ragged School Union, £1000; the Training-School for Young Women for Domestic Service, £1000; St. Paul's Eye and Ear Infirmary, £500; Ladies' Work Society, £500; Society for the Relief of Sick and Distressed Needlewomen, £500; and Establishment for Needlewomen, Great Orford-street, £500.

THE ARMY MEDICAL DEPARTMENT.

It will be seen, from a notice in our advertising columns, that the examination of candidates for commissions in the Medical Department of the Army, originally announced to take place on the 14th inst., has been postponed for the present. Due notice, it is stated, will be given as soon as another day has been fixed. No explanation is given of the reasons which have led to the abandonment of the intended examination; but if, as we shrewdly suspect, the dearth of candidates offering themselves has induced the head of the department to postpone the examination until more favourable times, might it not be as well if Mr. Gathorne Hardy were to make public, in the interim, the result of his long consideration on the grievances of army medical officers? At this moment the recess may be said to be as good as over, and though his attention may have been taken up with hosts of army reforms, the revision of the medical warrant was specially promised, and has been patiently looked for for many months. Without recapitulating all that has been written on this subject, we may once more observe that the Service is depending on the present Secretary of State for War for the promulgation of such an amended state of things as may satisfy those now doing duty in it; and many others would gladly join were affairs placed upon a more satisfactory footing. We should be delighted to be able to chronicle that every reasonable objection had been swept away; and in such a case we predict that candidates would present themselves in such numbers that the head of the department would be in a position to avail himself of the services of the most fitting only.

SHOULD THE OFFICERS OF ASYLUMS PAY HOUSE-DUTY?

Those who hold appointments as medical officers in gaols, public asylums, and other similar institutions, will be glad to hear that the question whether a resident medical officer of such an institution, having a residence distinct from the main building, is liable to pay inhabited house duty was settled in the Court of Exchequer last week in the negative. Dr. Jepson, Resident Medical Officer of the City of London District Lunatic Asylum at Stone, near Dartford, having been assessed to pay the inhabited house duty in respect of his house, which is separate from the Asylum, but within the enclosure, appealed to the Court of Exchequer, claiming exemption under the House Duties Acts, as his house was part of the Asylum. On behalf of the Crown the Attorney-General contended that, being separated from the Asylum, Dr. Jepson was liable for his house, and cited cases which had been decided by the former Court of Appeal (now abolished) in favour of the Crown. In delivering judgment, the Lord Chief Baron said that it was needless to argue the cases cited; the case must be looked at with the eye of common sense. The house was made part of the premises and was within the curtilage, and therefore he should hold that such houses are exempt. All the other judges concurred, and judgment was given with costs in favour of Dr. Jepson.

NEW DENTAL SOCIETY.

On the 19th of last month a considerable number of the most eminent dentists in London met for the purpose of forming a new society of those practising dental surgery, and who are at the same time duly qualified to practise surgery. This, at least, we suppose to be the meaning of the resolution passed by them, though they seem to express it more closely, viz., that it should consist of those who are Members or Fellows of the Royal College of Surgeons. We cannot but think that this is a most praiseworthy step, though, in the first instance, it may seem invidious to many worthy dental practitioners. The formation of such a society must react powerfully on the education of dental surgeons, and cannot fail to improve and elevate the aims of dental students. In the meantime the medical course for dental students does not fall so very far short of that of the ordinary medical student, and were they encouraged to go on to the point necessary for a qualification in surgery this would most certainly tend to elevate the status of dental surgeons as a body.

HUNTERIAN SOCIETY.

The following is the list of officers for the session 1876-77, proposed by the Council:—*President:* Henry I. Fotherby, M.D. *Vice-Presidents:* H. Gervis, M.D.; H. G. Sutton, M.B.; W. Rivington, M.B.; E. Dukes, Esq. *Treasurers and Trustees:* Thomas Mee Daldy, M.D.; Henry I. Fotherby, M.D. *Orator:* Walter Moxon, M.D. *Librarian:* P. L. Burchell, M.B. *Secretaries:* F. Gordon Brown, Esq.; R. Clement Lucas, M.B. *Council:* J. E. Adams, Esq.; F. M. Corner, Esq.; Frederick Daldy, Esq.; James Greenwood, M.D.; D. De Berdt Hovell,

Esq.; Wm. T. King, Esq.; P. H. Pye-Smith, M.D.; George Roper, Esq., M.D.; W. Sedgewick Saunders, M.D., F.S.A.; A. H. Smee, Esq.; Warren Tay, Esq.; W. Toulmin, Esq. *Auditors for* 1876-77: J. E. Adams, Esq.; C. T. Blackman, Esq.; D. De Berdt Hovell, Esq.; W. Humphreys, Esq.

UPPINGHAM SCHOOL.

We learn on excellent authority that Uppingham School met again on the 28th ult. in undiminished numbers, and in excellent health. The new deep well opened for the water-supply of the School has proved a success, giving a flow of 1400 gallons of pure good water per hour. We hope the good people of the town of Uppingham will now follow the example set them by the School authorities, and carry out as thoroughly and promptly all necessary sanitary reforms.

PROFESSOR GAIRDNER ON THE "TRADE" OF MEDICINE.

On a recent occasion Professor Gairdner addressed the young men constituting the Glasgow University Medico-Chirurgical Society. Among other observations, mainly of a local tint, he made the following, which are of a much wider significance:—

"As regards yourselves, it is quite true that you cannot do much, as things stand at present, towards the end in view of providing a higher kind of scientific instruction in medicine; but there are some things which you can do even now, while you are still young and fresh and vigorous, before the 'cares of the world, and the deceitfulness of riches, and the lusts of other things entering in,' have had time to choke the good seed of whatever real love of your profession we have been able to implant in you during your University career. Do not be too anxious about the ultimate result, or too eager to realise immediately the results of your labours here. Making money is a very good thing in its way, but it is a very poor, almost a contemptible, thing as the chief end and aim of a profession. Besides, there is another view of this matter which might not immediately occur to you, but which men who have had some experience know to be true. The remuneration of a medical practitioner is so much a matter of pure convention and usage, that if a man starts simply as a tradesmen, and on the strength of the common stock-in-trade, so to speak, of medical ideas, he has no chance whatever (except, indeed, by downright quackery) of rising above the common level of remuneration. But if a man of good ability has the courage and strength of will to deny himself, and to follow out a course of patient, original, valuable research, being at the time almost utterly regardless of consequences to himself, he will, as a rule, usually establish for himself, through the goodwill and *esprit de corps* of our noble profession, a position in which he will be fully justified in seeking, and will easily obtain, a much higher rate of remuneration. I have had the duty of advising many young men under these circumstances, and I have rarely found that a man whom I knew to be really deserving has failed in obtaining much higher fees than his predecessors in the same locality; and the fees have been easily and willingly paid, because it has been manifest to those who paid them that the value given for them was greater; that, having a more cultivated and a more efficient kind of service, a different rate of remuneration was simply what was demanded by the circumstances. The principle that lies at the root of almost all trades unions—the principle of the late strike at Erith against piece-work,—the principle of Sheffield rattenings, and of almost all the great convulsions among colliers and others as regards wages,—is that all men are to be paid alike, and that no one is to have liberty to rise out of the dead level. The principle of a profession is entirely different: it is that every man—within certain limits, of course, of clear expediency—is entitled to fix for himself the rate at which he will serve the public." Dr. Gairdner gave some verbal illustrations of this principle, and showed that the way in which medical remuneration could be most effectually raised was not by any combinations similar to those of trade unionism, but simply by individuals placing a proper value upon their own services. After some further remarks, he concluded by recommending to the students present three ways of maintaining a real interest in their profession beyond its mere lucrative value to them:—1, To write a really good and valuable thesis, as a start in life; 2, to subscribe to, and also to contribute to, a medical journal; 3, to connect themselves with some local medical society, in which the interchange of ideas with others might be accomplished in such a way as to stimulate research.

MENTONE.

(*From our own Correspondent.*)

(*Continued from page* 125.)

I must now say a little about the choice of hotels at Mentone. Once for all, it must be stated that the majority of these establishments are built very close to the sea, with only the promenade or roadway between it and them, or else with a small garden in addition in front of them. One of the consequences of this nearness to the sea is that at night, even in moderately calm weather, the noise of the tideless waves breaking monotonously on the same part of the beach is very disturbing. Some persons are kept awake by it for days after they have settled into the hotel; and the nuisance is worse in the East than in the West Bay, because the sound is there more confined. The glare off the sea is also much felt in these hotels; but it can be obviated by closing the Venetian blinds, with which all the south windows are provided. One advantage of being near the sea certainly is that, taking one day with another, you get more warmth there than you do even a short distance inland; another is that you can get out quickly on to a sheltered road, which is soon dry and passable even after rain. This is especially true of the West Bay. There is no doubt that there is a great predilection among visitors to Mentone for the neighbourhood of the sea; whether it is good for invalids to be so close to it as many are is another matter. Taking into consideration the smells which one encounters in walking along the Promenade du Midi, and also in the East Bay, and which arise from the discharge of drains into the sea, it would seem as if the purity of the air here were not all that might be desired.

It is, I believe, a recognised fact that phthisical patients with pyrexia do better away from the sea in this climate, and it is important to remember it in choosing an hotel.

I will now mention the names of the hotels near the sea which the English most frequent, taking them in order from west to east. The most westerly is the Hôtel de Pavillon, which stands by itself a third of a mile from the other hotels. Then we have, on the Promenade du Midi, the Hôtel Westminster and Grand Hôtel Victoria, both with gardens in front of them, the latter also having the great convenience of a lift to take persons up to the different floors. The Hôtel de Russie, Hôtel de Menton, Hôtel du Midi, and Hôtel Bristol, all in the West Bay and near the sea, are much frequented by foreigners. In the East Bay we have first the Hôtel de la Grande Bretagne, too close to the road to be pleasant for many people, and then, on a rising ground about fifty feet above the sea, the small and comfortable Hôtels d'Italie and Belle Vue. A little further, close to the road, is the very excellent Hôtel de la Paix, and next door the old and well-known Hôtel des Anglais, standing slightly back from the road, with a small garden. Still further is the Pension Beau Rivage, which gets the afternoon sun later than the other East Bay hotels; and lastly we have the Grand Hôtel de Menton, which has a good-sized garden, but is in some respects not to be recommended.

The list of hotels which stand away from the sea is not a very long one. The Hôtel Splendide, a little out of the town in the West Bay, is scarcely far enough removed from the shore to come into this category, but stands about midway between hotels near and those quite away from the sea. These latter are all situated on rising ground under the eastern slopes of the Turin Valley. They have a SS.W. or S.W. aspect, and get the sun nearly all day, and the view from them includes, besides the sea, the gardens, villas, and hill-slopes to the west of the town. They all have more or less garden attached, in which the flourishing vegetation attests the warm and genial character of the climate. This suburb of Mentone is coming

into increasing favour with the numerous German families who now frequent the town, and, from what one sees this winter, it is likely that many English who have formerly lived near the sea will for the future prefer it also. The Hôtel l'Orient, newly opened, stands nearest the town; then comes the Hôtel de Venise which is small, but very highly spoken of. Higher still is the old-established Hôtel du Louvre, with its *dépendances*, and standing in a capital garden. It is, however, almost entirely frequented by foreigners. Highest of all, lying immediately to the north of the railway, and occupying the most commanding position in Mentone, is the Hôtel des Iles Britanniques, with its north-west corner almost in the Turin Valley proper. The erection of this hotel, which is unique in its situation, and which in comfort and good management leaves little to be desired, affords invalids an opportunity of testing the merits of a residence at Mentone away from the sea. I will not enter into minute details about the respective merits of the various hotels enumerated, but pass on to speak a little about the external surroundings of the invalid at Mentone, and then a few words about his amusements. There are very good shops here, and most delicacies which a sick person might fancy can be bought pretty reasonably. All kinds of English groceries, biscuits, etc., are procurable, as well as wines and spirits. Tea is dear, and costs from four to eight francs a pound. Game (pheasants, hares, woodcocks), as well as poultry, have been abundant this season. There is a good fruit and vegetable market. Fish has become more plentiful since the railway was opened. The best fish comes from a distance —chiefly, I believe, from the west coast of France. What is caught by the local fishermen consists mostly of sardines, and of these even the supply is very scanty. Invalids can get good milk, warm from the cow, at several of the Italian *laiteries* in and near the town: a pint costs twenty centimes. Hotel milk is dear and watery. There are good chemists' shops here, and they keep a good stock of the usual medical requisites. I think there is a general improvement in the Mentone shops in the last few years. The town itself is not much altered, with the exception of the erection of some new villas and other buildings, more especially in the direction of the railway-station. The French authorities have lately moved the post-office into a new building in one of the most inconvenient situations they could select—near the cattle market, and the narrowest and most crowded part of the High-street. As this is, however, their practice even in Paris, we must, I suppose, not be surprised. In some respects Mentone has changed for the worse lately, more especially from a picturesque point of view. New buildings involve clearing the ground of the olive and orange trees which are such a feature in the Mentone landscape, and on the hill-sides there is also an increasing tendency to cut down the olives, and to replace them by vines (which, of course, are leafless in winter) and by orange and lemon trees. Meanwhile, until the latter have grown up into respectable trees, the loss of the olives is very offensive to the eye, and it is not impossible that their removal may also injuriously affect the climate. Considering the numbers of strangers who make Mentone their abode for nearly half the year, and considering the vast sums which find their way into the pockets of the Mentonese, and into those of the hotel-keepers, one cannot avoid the reflection that the Municipality does not do as much to make Mentone attractive as well as salubrious as it might. I have already spoken of the neglected state of the "English Garden." If shrubs and flowers cannot be made to grow close to the sea, a public garden should be provided further off in a sheltered situation. The Promenade du Midi is not kept nearly as neatly as it might be, and the beach in front of it is almost inaccessible to visitors, because of the multitudes of clothes which are hung out to dry along it at all hours of the day. The stunted and utterly forlorn aloes and shrubs which divide the road from the beach are also used as drying-places for various male and female garments, mentionable and unmentionable. Besides the beach, the torrent-bed on the road to the railway at the mouth of the Turin Valley is also a drying-ground, while the washerwomen themselves swarm by the side of every available pool of water in a way which must be seen to be believed. It is surely in the power of the authorities to provide proper washing and drying places out of sight of the general public. As things are at present I should think more than half the clothes in Mentone are washed in public close to the Promenade du Midi. The quality of the water in which the clothes are washed appears to be a matter of complete indifference here. Not long ago I saw, on one day, three women complaisantly washing their linen in the flushings of a drain which issued out of a bank about three or four yards higher up; and on another, several women making use of water in which a man was washing manure-barrels, for a similar purpose. It is true that there has been so little rain here for several months that water has been very scarce, but a good supply of water *can* be obtained and brought down from the hills, and it ought to be done. I understand that the Municipality have the matter under their serious consideration—which, however, only means that they will think about it!

More water is also wanted for flushing the drains, which, until we had some heavy rain last week, were very offensive in the town and on the parade. There does not appear to be any systematic arrangement of sewers. One thing is certain —that sewage is allowed to discharge itself into the sea at places where it ought not to. The night-soil from the hotels and houses is collected in cesspools, which are emptied from time to time into large iron barrels, somewhat in the Parisian fashion. The liquid manure thus obtained is conveyed away from the town, and used for manuring the orange and lemon orchards. The annoyance caused by this plan is probably much less than if the sewage were all discharged into the sea, and at the same time the sewage is utilised in a most profitable manner.

There are one or two suggestions which I should like to throw out, with a view to the improvement of Mentone. I think the extension of the Promenade du Midi eastwards, so as to run close to the sea, and join the road in the East Bay, is a work that the authorities should execute at all cost, so that we may be able to go from one bay to the other without passing through the town at all. Westwards, a walk for foot-passengers from the end of the Promenade du Midi along the shore to the Cape St. Martin (the western boundary of the West Bay) is a great desideratum. This has already been talked of; but, alas! words have not budded into deeds. More seats are sadly needed on the promenade, and also in the East Bay; and some small pavilions, or summer-houses, roofed over and sheltered at the back, might be advantageously placed here and there along the shore. Open seats are, on many days, too draughty for invalids. The carriage-roads near Mentone are not bad, but they might be better; and in and around the town the water-cart ought to be much more often seen than it is. For watering purposes sea-water can always be got. The authorities may say, in answer to these remarks, that they have not money enough to carry out such propositions; but I may observe that they propose to erect a *theatre* at a considerable expense, and that if they have money to spend on what is totally unnecessary, they ought to have enough to spend on what is really required. At any rate, I hope that before long the abominable nuisance of washerwomen and clothes-drying may be got rid of, and kept out of sight, as it is in civilised towns and seaports generally.

I have not much to say about the amusements of invalids. Those who visit Mentone for the first time will, if they are strong enough to get about, find abundance to interest them in the scenery around, and in observing the manners and customs of the country. When the weather is fine and warm, excursions can be made in a carriage to Monaco, Bordighera, etc. Those who care for botany can add to the pleasure of their walks by collecting plants; and there are many treasures to be found by careful searchers. The natural history of Mentone, as far as the flora is concerned, has been admirably described by the late Mr. Treharne Moggridge. Sketching in water-colours will well repay cultivation at Mentone, and, with due care in choosing warm days and sheltered spots, may be indulged in without danger.

There is a sufficient variety in the walks around Mentone to satisfy even those who do not come for the first time, and few people can be insensible to the charms of the beautiful sea and sky, and to the constantly changing tints on the hills and mountains. A vast number of invalids, including nearly all the foreign ones, seem to think that all the benefits of a Mentone sojourn can be reaped by sitting in a chair and basking in the sun. As far as my own observation goes, both here and in other health-resorts, the invalids who exercise their lungs and strengthen their muscles by moderate walking, especially by short excursions up the hills, do better, and make more decided progress than the sedentary sick. The rule is of course not absolute, but I feel convinced that many chest patients here might take much more active exercise than they do. A place of amusement which invalids cannot be

recommended to frequent is the gambling-house at Monte Carlo, between this and Nice. Unfortunately nature and art have combined to make it so attractive that too many Mentone visitors go there. Some concerts have been given this season at the Casino on Thursday afternoons, nominally for the sake of the invalids at Nice and Mentone, but I hear from excellent authority that the room is so crowded and hot that it is quite unfit for pulmonary patients to go there. If the directors are really in earnest, they should issue a limited number of tickets, so as to prevent a crowd. At present all seats are free, and of course everyone tries to get in. As to the gambling, the less said about it the better. It is quite time that the French Government put an end to the iniquitous proceedings of the Principality of Monaco.

Those who are fond of reading can get plenty of English and foreign books in the Mentone lending-libraries, but it is well for visitors to provide themselves with *solid* literature before leaving England, as they will get chiefly works of fiction here—which, however, are enough for some minds. It is not easy to learn either French or Italian in Mentone; an unintelligible *patois* is almost universally spoken, and pure French and Italian are rarely heard. The evening hours are perhaps the most difficult to dispose of, but when people begin to know one another in an hotel it is possible to pass the time in conversation, and in playing whist, chess, or other games. The hour for bed is also earlier than in England, and people begin to think about retiring soon after nine o'clock. There is one disadvantage in combining bed and sitting-room in one (which is so common here),—namely, that it is difficult to ventilate the room thoroughly before going to bed. As the windows open inwards like doors and reach to the ground, it is not easy to regulate the amount of air which enters at once, and if the windows are opened wide with a candle in the room, in come the mosquitoes. These plagues, which are very numerous in November, happily become fewer as the winter goes on, but to unwary or inexperienced visitors they may be a great nuisance in the early part of the season or even later. They remain torpid during the day, but immediately after sundown begin their operations. Although they betray their presence by their hum, they are not easy to destroy, and they often manage to escape detection altogether until their victim finds his face blotched and bitten in the morning. The marks they leave on the face and hands (if exposed) remain from ten days or a fortnight; and the fact that one lady this winter counted 195 bites on her face at once, proves that the Mentone mosquito is an insect not to be disregarded. Curtains are generally provided round the beds, but they are not always of the right sort, and are so thick and heavy that the occupants cannot sleep under them. Invalids should stipulate for net curtains, if they are not already provided. To escape the annoyance of mosquitoes it is well to carefully examine the inside of the curtains before letting them down, and also to look for them on the walls of the room, and put an end to their days with the sole of a slipper; and, lastly, the candles must be put out before the window is opened.

In concluding this long and, I fear, somewhat desultory letter, I may say that as far as weather is concerned we have certainly had a good season up to the present time. While the newspapers give accounts, which make one shiver, of the cold and snow in various parts of France, and while private letters which I have received from Italy speak of intense cold, and accounts from England are not at all encouraging,—we have been enjoying many warm and brilliant days, and have had very little rain, and no snow nearer to us than the mountains. The notes I have kept show that in December last fourteen days were very fine (with no or very little cloud); eleven were fine but dull and cloudy, with some sun; and four very dull and completely overcast. On two days it rained heavily the greater part of the day. There was also heavy rain on one night, and one of the four "dull" days was showery. There were frosts in low-lying parts on three or four nights, and once there was ice as much as one-eighth of an inch thick in the torrent-bed. During January, up to the 20th, there have been nine very fine days, five fine but dull days, one day dull and very cold, with N.W. wind, two days have been thoroughly wet, two partly wet, and one has been slightly showery. The amount of rain which has fallen during the autumn and winter is much below the average, so that we must expect a good deal more during the next two or three months. All things considered, I can say for myself, and I believe for others too, that we are thankful that Mentone was selected for our winter sojourn.

FROM ABROAD.

M. Blachez on the Treatment of Convulsions of Infants.

In one of his lectures on Diseases of Children, M. Blachez lays down the following rules (*Gaz. Méd.*, December 25, 1875), for the treatment of convulsions:—

If it is a single attack, and gives no signs of a tendency to recur, it is best to confine ourselves to some hygienic precautions, such as securing efficient ventilation, etc. If the attacks run into each other, or recur at short intervals, revulsives should be applied to the lower extremities, compresses of cold water or of water with ether being also laid on the temples. Compression may at the same time be made on the carotid arteries, as recommended by Trousseau. The pulsation of these vessels must be sought for at the lateral parts of the neck, and then they must be gradually compressed backwards towards the spinal column. The amelioration should be rapid; and if after two or three minutes it has not manifested itself in an evident manner, the compression should not be longer continued. Inhalations of chloroform may then be resorted to, administering them in a very gentle and gradual manner. In order to avoid all danger, rare as this is, it is necessary that a certain quantity of air should be always mixed with the chloroform vapours. In some cases special indications present themselves, as the employment of an emetic when it is well made out that the convulsions are due to indigestion.

When the attack has been overcome, we must try to modify the general eclamptic condition by having recourse to anti-spasmodic treatment; but the management of agents of this description requires great prudence, several of them being of a dangerous character. Their dose is of great importance. For an infant from eight to fifteen months old we should never exceed the dose of thirty centigrammes (a centigramme is equivalent to one-seventh of a grain) of henbane powder, nor for a child of seven years old one of fifty centigrammes—after having commenced with five centigrammes. The maximum dose of belladonna powder is ten centigrammes, after commencing with one, increasing it very gradually, and carefully watching the throat and pupils of the child. We may proceed more boldly with oxide of zinc or James's powder (which M. Blachez has not found of any special utility), of which ten centigrammes may be given every two hours; but bromide of potassium and chloral are to be preferred to any of these remedies. Of the bromide from ten to twenty centigrammes may be given every two hours until fifty or sixty centigrammes are reached in an infant, and from two to three grammes in a child of seven. The effect should be manifest at the end of twenty-four hours, or the dose should be increased. A mixed treatment of the bromide and chloral gives still better results, the bromide being given during the day and the chloral at night. The maximum of the latter agent is twenty-five centigrammes for an infant and fifty for older children.

Professor Thiry on Purulent Ophthalmia in the Adult.

From a recent clinical lecture delivered by Prof. Thiry at the Hôpital St. Pierre, Brussels (and reported by M. Huart in the *Presse Méd. Belge*, January 16), we extract the following observations:—

A man, aged forty, was admitted December 16 with purulent ophthalmia, which had been induced by his washing his eyes with his urine while the subject of acute urethritis. Both eyes were affected, there being great swelling of the eyelids, especially the upper, due to œdematous infiltration of the cellular tissue. The obstruction to the venous circulation induced a violet colour, muco-purulent discharge issued from the angle of the eye, and the spasm was such that the eyelids were separated with difficulty, and could not be everted. On raising them, the mucous membrane was found greatly tumefied, and of a pale red, with epithelial exfoliation. The surface of the conjunctiva looked as if ulcerated, the secretion of muco-pus was abundant, and there was considerable perikeratidean chemosis, compressing the cornea as in a vice. The compression was such that on the right side the eye had burst and discharged its contents. On the left the same fate seemed imminent, there being also severe pain and much

discharge, and only the perception of light. In order to obviate the danger which menaced this eye, to relieve the antero-posterior compression produced on the globe by the tumefied eyelids suffering from blepharospasm produced by the contraction of the orbicularis, and to allow of applications being made over the whole diseased surface, Prof. Thiry had at once recourse to a procedure indicated by Graefe, but which has since been lost sight of, and is not often had recourse to in treating this serious affection. It consists in the incision by means of scissors of the external angle of the eye, comprising in the incision, besides the skin and the movable attachment of the orbicular muscle, also the conjunctiva. Graefe discountenances the incision of this last, in order to avoid ectropion, but this is mere hypothesis; and, moreover, what is ectropion compared to the loss of the eye? Immediately after the incision, a considerable relaxation takes place, the eyelids are now easily everted, and the mischief is seen to be extending as far as the supra-orbital region—the upper eyelid especially seeming to be increased in its transverse direction. A useful hæmorrhage is also produced, which should not be arrested. A solution of nitrate of silver (five parts to thirty of water) is applied by means of a pencil to the palpebral conjunctiva, the cornea being first covered with belladonnised oil. Scarifications are made in the chemosis to diminish the circular compression, and continuous irrigation is employed so as to prevent the discharges remaining in the eye. The patient is kept in darkness, and the application of the nitrate is renewed two or three times a day, scarifications of the ocular conjunctiva being repeated every morning, and atropia dropped into the eye every two hours. Chopart's mixture is given also as an aperient.

We need not pursue this case in detail, it sufficing to say that by a persistence in these means, gradually modified, complete success attended the endeavour to save the left eye, so that the patient was discharged on January 9 completely cured, the right eye having been lost before he entered the hospital. There can be no doubt, Prof. Thiry observes, that this remarkable success was in great part to be attributed to the palpebral *débridement* described above. Speaking as to the causes and nature of purulent ophthalmia, he remarks that the purulent discharge may be the result of a simple transformation of catarral into purulent inflammation, which in some cases, indeed, is only partial, producing at different points little conjunctival pustules, which burst and furnish secretion until they are cicatrised. In other cases the suppuration may be consecutive to deeper parenchymatous inflammation of the conjunctiva; and these cases are very serious, not only by reason of the pus that is produced, but by the violence of the phlegmasia. In most cases, simple, acute, suppurative inflammation is due to the direct transport of vaginal, urethral, or uterine pus or mucopus to the conjunctiva, and the doctrine of metastasis is entirely unsupported by facts. In some cases, however, these suppurative inflammations arise spontaneously, and are due to the intensity of the inflammation or the constitution of the subject; this being the characteristic, for example, of certain phlegmasiæ termed scrofulous. How does it happen that vaginal or urethral pus will give rise to such violent suppurative inflammation, and endanger the loss of the eye, when other irritating agents are not attended by such redoubtable consequences? This arises from the fact that among the most irritating agents that can be met with there are none the action of which surpasses the pathogenic stimulus of the pathological pus of mucous membranes. Proceeding from similar tissues, it acts with unusual force and violence upon healthy mucous membranes, the sensibility of which it stimulates energetically. Proceeding from this point, some authors have attributed to the pus of these mucous membranes a specific character, and have explained by this the pretended specificity of purulent ophthalmia. This allegation is not based upon any serious scientific fact. What seems the truth is, that physiological pus —that, for example, proceeding from a wound approaching cicatrisation—is evidently inoffensive; while all pus derived from a mucous membrane becomes an agent of irritation, which is the more powerful from having been exuded during the period of progressive inflammation of this mucous membrane. The pus from bone itself, even that of caries, does not induce such a severe inflammation.' But this has nothing specific about it; it being only a simple acute inflammation, although attended, it is true, with formidable phenomena.

REVIEWS.

Materia Medica and Therapeutics: Vegetable Kingdom. By Charles D. F. Phillips, M.D., F.R.C.S.E. London: J. and A. Churchill. Pp. 584.

Our notice of this book has been long deferred, and would probably have been so still longer had it not become necessary to clear ourselves of certain imputations with regard to it. For many years the author of this book practised in Manchester as a homœopath, but, having seen the error of his ways, he was recognised as a practitioner of scientific medicine, and was formally admitted a member of the Clinical Society, having been nominated by some of the most distinguished of its members. In due course the volume now before us was laid before the public, and was saluted by one or two of our contemporaries with a chorus of praise. They would have done well, before receiving the book thus, to have examined it a little more closely, and more carefully considered its contents. In certain articles in homœopathic journals, and more especially in the *Homœopathic Review*, these notices have either been held up to derision, or else soberly accepted as a proof of the coming ascendency of homœopathic doctrine; for it is not to be denied that certain portions of Dr. Phillips's work are distinctly homœopathic in the nature of the information supplied, in the sources of that information, in the modes of employing the drugs recommended—in short, in every way save the mode of prescription as regards doses. It has been alleged that we joined in this chorus of praise; and that we now categorically deny. The only former reference we have made to Dr. Phillips's book distinctly indicated our opinion as to its character. While thus showing that we were aware of the kind of article we had to deal with, we desired, if possible, to let matters take their due course—in all probability Dr. Phillips would have been wise enough, in a new edition, to revise much which might be considered objectionable in the present one. Moreover, Dr. Phillips had distinctly recanted his former opinions, and had been appointed to an important chair in one of our medical schools. The circumstances demanded a certain amount of grace, which we were quite willing to concede had the conduct of our brethren-in-law, the homœopaths, permitted us to do so; but they seem to have been inspired with an ecstasy of delight at the prospect, as they say, of at last having homœopathy taught in a medical school. With this was coupled a complete misunderstanding as to the reasons which actuated a large number of our professional brethren in Birmingham to resolve to admit homœopaths to the Medical Institution there.

They seem to think that this was a concession on our part to their views. As we take it, it was nothing of the kind. Toleration is the order of the day, but toleration of a man's views is by no means an acceptance of them; and, unfortunately, this part of the subject has become mixed up with that with which we now more especially desire to deal—the nature of Dr. Charles Phillips's teaching. We repeat that there cannot be the slightest shadow of doubt that in certain passages this is distinctly homœopathic; but it is also our duty to add that this is not so as regards the great part of the book. The volume contains much that is highly meritorious, though it seems to halt between two somewhat antagonistic aims. It is far too large to be used by the ordinary student of materia medica; and though it contains much that is new to English-reading students, it is neither so deep nor so wide as to be the kind of book most desirable for the practitioner. This is, of course, altogether apart from any peculiarity of view expressed in it. By almost universal consent it has come to be the custom to debar botanical descriptions from books of this class, and to relegate them to such admirable treatises as those now publishing by Bentley and Trimen. This is the more important when—as we believe is the case with regard to Dr. Phillips —the author is not a professed botanist.

So many things have become mixed up with this unfortunate subject that we have not yet spoken of those parts of Dr. Phillips's work to which especial objection must be taken. These are almost all in the earlier part of the volume, which certain internal evidence would lead us to believe had been constructed a good long time before the others. The articles to which we chiefly refer are those on Aconite, Pulsatilla, Actæa, Hydrastis, and Cocculus, though a somewhat similar tendency is displayed in later chapters on Arnica and Valerian—to mention these among others. It is much to be regretted for Dr. Phillips's

sake that this is so, for we repeat that the greater portion of the work would be found both useful and valuable; but the blemishes remain.

Outlines of Practical Histology. Being the Notes of the Histological Section of the Class of Practical Physiology held in the University of Edinburgh. By William Rutherford, M.D., F.R.S.E., Professor of the Institutes of Medicine in the University of Edinburgh, Examiner in Physiology in the University of London. London: J. and A. Churchill. Pp. 128.

To the student and teacher of practical histology this work can hardly help being a great boon. It is complete, yet short; perfectly clear and simple; and, moreover, every line bespeaks the outcome of an extensive practical acquaintance with the whole subject. This is, indeed, the prime feature of the little manual; had it been the work of one less acquainted with the daily routine of the laboratory and the actual requirements of students, it would have almost certainly been larger, not so clear, and consequently less useful.

Surgery of the Arteries. Lettsomian Lectures of the Medical Society of London, 1875. By C. F. Maunder, Surgeon to the London Hospital, formerly Demonstrator in Guy's Hospital. London: J. and A. Churchill. Pp. 208.

The present little volume contains Mr. Maunder's Lettsomian Lectures for last year, of which we published full abstracts. From these our readers would be fully competent to judge of the nature of the lectures as published *in extenso*, but should they desire to make further acquaintance, especially with the ease lore Mr. Maunder offers, we must refer them to the pretty little book now before us. A good many of the subjects dealt with in it are still *sub judice*, and we would not venture to pronounce absolutely on either side. Suffice it to say that, as regards any of them, Mr. Maunder is fully capable of taking his own part.

Examination Questions. Arranged by H. Aubrey Husband, M.B., M.C., etc. New edition. London: Longmans. Pp. 257.

There can be no doubt of the value of actual questions, set at regular examinations, to the student, more especially if he has the help of a senior or teacher in overlooking his written answers thereto. But to this end the questions ought, as far as possible, to be exact, and in making a selection any questions which are not perfectly clear should be kept out of a sound collection. This is exactly what Mr. Husband has not done. Questions of all sorts of value are mixed up together,—some very good, some very bad; but if, as the author apparently recommends, the student is to rely for answers to them on what the author calls his various "text-books," we fear he will come to grief.

The Medical Vocabulary: containing a concise Explanation of the Terms used in Medicine and its Accessory Sciences; to which is appended a Selection of Indian Medical Words in common use. By Robert Fowler, M.D. Edin., Vice-President and late Honorary Librarian of the Hunterian Society, etc. Second edition, revised and greatly enlarged. London: Renshaw. Pp. 552.

The present edition of Dr. Fowler's most valuable little work is a great improvement on the former in almost every way. Whilst decidedly enlarged, it has not reached a cumbersome size, and it remains easy and convenient of reference as ever. Many new words have been added, and the whole rendered very much more complete. For our own part, we should have been glad to hear that Dr. Fowler had been able largely to reduce the size of his book, but we fear we are not yet near that millennial period. There is, however, a marked tendency on the part of the higher class of medical men to use plain, common language, and it is a great mistake to suppose that plain language need of necessity be vulgar. The last Monro of Edinburgh, whilst demonstrating the brain, used, when he came to a certain part, to refer to it with great triumph—"Gentlemen, this is my father's hole"; but the term "foramen Monrovii" is at least as unsatisfactory as a name for anything. In truth, medicine was so long surrounded by humbug begotten of ignorance, that its professors had to impose upon themselves by the invention and use of terms which meant nothing. Look at the fashionable doctors Smollett was so fond of showing up; their ignorance was only excelled by that of Fielding's parsons. Yea, such is the influence of tradition,—see "the black coat of formal cut, the long shirt-sleeves, and the staid, self-satisfied gait,"—that we have not yet got wholly rid of such influences. Scientific terms are no doubt useful, but only in one way—viz., to give greater precision to ideas; when they come to take the place of ideas or of real knowledge, they become a nuisance. The story is told of a worthy professor who, being greatly bored by the persistence of the relatives of a certain patient to give a name to the disease she was supposed to suffer under, in something like a pet turned round and said, "The fact is, ma'am, she is suffering from a cachexia." The friend, intensely relieved, could only ejaculate, "Oh, thank you, doctor!" Nor should the case of the old woman who found such comfort from the blessed word "Mesopotamia" be altogether forgotten. But these are not faults to be fastened on Dr. Fowler. He has taken the words as they are, and explained them tersely and clearly; he has produced a most valuable compilation, and we congratulate him on the result. We need hardly say that the medical terms used in India here given will be of decided advantage to the young surgeon proceeding on Indian service.

An Index of Diseases and their Treatment. By Thomas Hawkes Tanner, M.D., F.L.S. Second edition, revised by W. H. Broadbent, M.D., F.R.C.P., Physician to the London Fever Hospital, Physician to St. Mary's Hospital, and Lecturer on Medicine at St. Mary's Hospital Medical School. London: Renshaw. Pp. 476.

It is only necessary for us to note, with regard to the present edition of Dr. Tanner's book, how well Dr. Broadbent has performed the duties of editor. Dr. Tanner's plan was a plain and simple one, and in any new edition it had only to be followed in such a way as to bring the volume abreast of the present limits of practical medicine. This has been most satisfactorily done by Dr. Broadbent, and the work gains by the weight of his authority.

Professor Wilson, F.R.S.—The following is the programme of this gentleman's lectures at the Royal College of Surgeons, which will be brought to a close on the 11th inst., viz.:—Retrospective review of the five previous courses of lectures. Chromatogenesis, or pigment-formation in the human race; causes influencing its development and variation. *Chromatopathic Affections.*—The pied negro; George Alexander Grattan; Maria Sabina; variegated animals and plants; causes tending to induce chromatopathia; lentigo or freckle; summer and winter freckles; melasmic mottling of the skin from heat; mechanical melasma from varicose veins; melasma from constitutional causes; uterine melasma and chloasma; supra-renal melasma or bronze skin; concurrence of anæmia with melasma; derivation of pigment from the blood; illustrations of melanopathia and leucopathia; pigmentary mole; leucasmus or achroma; melasma from chronic inflammation of the skin, a sequela of ulcer, acne, eruptions; melasma arsenicale; pigment in ichthyosis and warts; neuropathic melasma; pigment in pregnancy; Martha Weston's case; maculæ gravidarum; melasma frontis et palpebrarum; moist melasma palpebrarum; Mr. Teevan's case; Mr. Yonge's case; melasma from fear; versicolor; xanthoma and xanthelasma; syphilitic melasma; melasma of elephantiasis; achroma of elephantiasis; achroma of morphœa and scleriasis; dyschroma from venous congestion; from extravasation of blood; from chemical stain, as in argyria; from tattoo; diagnosis and prognosis of dyschroma; varieties of colour. Therapeutical treatment of freckles, ephelis or sunburn, chloasma, melasma, and achroma. *Epidermic Affections.*—Forms of desquamation; epithelium of the follicles; phytosis of fungus-development; dermatophyta; tinea capitis or ringworm; tinea circinata; favus; the phytiform substance discovered by Remak; phytosis versicolor; fungus theory of these diseases; contagion; lichen circinatus; lichen marginatus; summary of phytiform affections; treatment. *Onychopathic Affections.*—Hypertrophic nails, their mode of growth; hooked nails; keel-formed nails; shovel-shaped nails; fissured nails; fibrous nails; marks in nails; arrest of growth of the nails during illness; affections of the nails associated with eczema, lepra, and struma; onychogryphosis; supernumerary nails; winged nails; agnail; ficus unguis; whitlow; onychia; treatment.

GENERAL CORRESPONDENCE.

THE FLOATING-KIDNEY COMMITTEE.

Letter from Dr. J. Wickham Legg.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am directed by the Committee appointed by the Pathological Society of London to inquire into the matter of movable and floating kidneys, as verified by examination after death, to ask you to be so good as to make known that the Committee are anxious to receive details of such cases from any who have met with the like in their practice. The Committee would be greatly indebted to those members of the profession who may be able to contribute any information; and notes of the cases will be gratefully received by the undersigned, the secretary to the Committee, at 47, Green-street, Park-lane, London. I am, &c.,

February 1. J. Wickham Legg, M.D.

DILATATION OF THE FEMALE URETHRA.

[To the Editor of the Medical Times and Gazette.]

Sir,—Several letters have recently appeared in your journal, strongly recommending dilatation of the female urethra in frequent and painful micturition, but I fail to discover what are the morbid conditions of the urinary organs for which the operation is recommended. Is it in spasm of the urethra and neck of the bladder, in chronic inflammation and ulceration, and even in more acute inflammatory attacks of the last-named organ,—in one, or in all of these diseased states, that it has been found useful? If your correspondents who may have some experience of this operation, and any notion as regards its *rationale*, will enlighten me, I shall esteem it a favour.

January 25. I am, &c., Galen.

IS SKATING INJURIOUS TO WOMEN?

[To the Editor of the Medical Times and Gazette.]

Sir,—I should be glad if I could elicit your opinion, or the opinion of those obstetric physicians who have large opportunities of judging, as to the harmfulness or harmlessness of the new amusement of wheel-skating, which is coming more and more into vogue. Does it (as far as is known), or is it likely to, produce displacements or flexions of the uterus, and so to give rise to serious after-consequences? I ask this because I hear of the severe troubles which young ladies have to endure in acquiring skill in this accomplishment. Some relatives of my own were sore with their bruises for days after beginning to learn, and no doubt others suffer in like manner. Can this be a really feminine amusement? It may be replied that in countries where ice-skating is indulged in by women—*e.g.*, in Holland or Canada—no ill results are known to follow; but there is a valid explanation of that. There, owing to the habitually cold winters and long continuance of frost, skating is learnt as a necessity to enable people to get about, and therefore the art is acquired early in life—in childhood, when tumbles matter little. Here, however, wheel-skating is being learnt by hundreds of young women at the time of sexual maturity, when important processes occur every month, and the uterus is not a passive or an undeveloped organ, as in childhood. Is it not likely that the heavy jar of repeated falls on an asphalte pavement will be a new source of female illness and suffering? At any rate, the hypothesis is not extravagant. In the hope that competent authorities will try to answer this question, I am, &c., Enquirer.

The Finsbury Dispensary.—At the annual meeting of the subscribers to the Finsbury Dispensary, last week, it was stated that the finances of the institution, which last year were in a very unsatisfactory state, were now, owing to several large grants from City companies, in a more flourishing condition. The total receipts for the year amounted to £861 3s. 6d. The expenditure absorbed the whole of that sum with the exception of £15 9s. 11d. Dr. Lomas having resigned his post as one of the physicians at this institution, Dr. Domett Stone was appointed to succeed him.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, January 18.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Artificial Teeth removed from the Trachea.

Mr. Gould exhibited for Mr. Heath two sets of artificial teeth, each consisting of a gold plate and two teeth, which had been dislodged from the mouth of a young lady during a fit, the one passing into the œsophagus, and the other into the larynx. The patient complained of pain and some dyspnœa. An œsophageal probe was passed into the stomach, to the relief of these symptoms, but the voice remained laryngeal in character. On the third day there was increased dyspnœa with laryngeal breathing, and on laryngoscopic examination the teeth were seen lying below the vocal cords. Mr. Heath removed them by tracheotomy. Soon after the other set was passed by stool.

The President said that he had pointed out the danger of sleeping with artificial teeth.

Mr. Gould replied that the accident occurred during a fit at night; but the teeth had not been firmly fixed.

The Amyloid Reaction with Iodine and Sulphuric Acid.

Dr. John Williams showed two specimens of dysmenorrhœal membrane which had been treated with iodine and sulphuric acid in order to demonstrate the so-called amyloid reaction. Dr. Williams was anxious to direct attention to the important fact which had been mentioned by Virchow in his original paper, but was apparently forgotten, that iodine and sulphuric acid alone give a distinct blue colour without amyloid material or any other substance whatever. Mr. Williams demonstrated this reaction to the meeting.

Dr. Ralfe said that he had been inclined to believe that the violet colour was due to the heat of the mixture of sulphuric acid and aqueous iodine solution volatilising the iodine. He had tested the effect of an aqueous solution of iodine on the various members of the albumen series, and had obtained these results:—1. Albumen was not coloured, but decolourised the iodine solution. 2. Fibrin acquired a red mahogany colour in a few minutes, which it lost after standing. 3. Casein gave a decided red. 4. Syntonin gave a red tinge. As regarded lardacin, opinions were divided whether or not it was an albumen. Still its reaction with iodine should be cautiously accepted as characteristic, considering the reaction of the albumens.

Dr. Moxon said that he had observed certain peculiar effects of iodine in using it for staining. He had seen it stain the rete mucosum of the skin in lupus, and the epithelium cells in urinary deposits. He objected to the description of the reaction colour as mahogany-red, and would call it rather a dark purple-brown or walnut. As no solvent had been found for lardaceous matter, it was impossible to discover its chemical composition.

Dr. Green pointed out the importance of the communication of Drs. Williams and Ralfe. Certainly the iodine reaction with casein was exactly like that with lardaceous matter, and as certainly was it a mahogany colour.

Dr. Greenfield said that the fallacy in the use of the iodine and sulphuric acid reaction was not unknown; Dr. Bristowe insisted upon it. Some kidney casts were easily stained by iodine. He understood that a solvent had lately been discovered for lardaceous matter.

Dr. Wickham Legg said that the composition of lardacin had been ascertained by dissolving away the other constituents, after which it was soluble in dilute ammonia. It was eight years since he had pointed out that iodine and sulphuric acid alone produce a blue colour.

Anomalous Blood-Cyst.

Mr. Godlee showed a specimen of a blood-cyst which presented some interesting peculiarities of structure. It had been first developed in a woman about sixty-three years of age, in connexion with the breast, and removed by the *flèche caustique*, so that there was no opportunity for microscopical examination. Recurrence took place within a year, and a lump appeared in the axilla, and now lancinating pains were complained of. The tumour had very much the appearance of a scirrhus implicating the skin; but after removal it was found to

consist of a cyst having a dense fibrous capsule, and containing a drachm or two of dark, treacly blood, as well as a mass of grumous brownish material resembling altered blood-clot. This, under the microscope, was seen to consist of nearly circular tubes, lined with a definite, nearly hexagonal, epithelium, with distinct oval nuclei, which, on comparison with a section of the breast of a puerperal woman, were seen to be almost identical with the acini of the gland both in size and shape; but the interstitial tissue was much less in the tumour. A teazing showed that the tubes were arranged in festoons round some of the larger vessels, and the section showed in places such systems of vessels and radiating tubes cut transversely. The capillaries ran in the minute septa between the tubes. This arrangement is almost precisely that described as the normal condition in the puerperal breast. The microscopical appearances presented by the material contained in the axillary gland were identical; but this consisted of a bilocular cyst containing grumous material only. The interest of the case was twofold—first, because it was a blood-cyst developed in connexion with what must be called a cancer, and not, as is usually the case, with a sarcoma; and second, because this tumour, though obviously a cancer, presented a structure which could hardly be distinguished from that of one condition of the normal breast.

Mr. Doran related a case of blood-cyst on the shoulder of a middle-aged woman. It was tapped; but in twelve months she returned with a solid tumour in the same spot, which proved on removal to be a round-celled sarcoma; death speedily followed.

Dr. Powell asked what the microscopical structure of the axillary gland was; and

Mr. Godlee replied that it was the same as that of the mammary tumour.

Stenosis of Mitral and Tricuspid Valves.

Dr. Greenfield exhibited the heart of a woman who died in St. Thomas's Hospital. She had been admitted with slight left hemiplegia of a few weeks' duration, and physical signs of aortic obstruction and mitral stenosis. The symptoms were not urgent. On the third day, on rising, she suddenly became convulsed on the right side, and died comatose in nine hours, with contracted pupils. There was no history of syphilis or rheumatism. Post-mortem, the heart weighed thirteen ounces; the left ventricle was very small, the right very large; the auricles were very large, especially the left; the orifice of the mitral was extremely small, and funnel-shaped; the tricuspid opening was considerably narrowed, all the valves being adherent and slightly thickened; the aortic valves were healthy. None of the other organs were congested, except the spleen. The right middle cerebral artery was blocked, and the corpus striatum and thalamus opticus softened; the basilar artery was also quite blocked by a clot, which extended into several of its branches, and a part of the left hemisphere was discoloured. The liver presented unmistakable characters of syphilis, although no history of the disease could be obtained. The question arose whether the valvular stenosis was to be considered syphilitic. The absence of congestion of the lungs was interesting, as the narrowing of the tricuspid seemed to have prevented the usual effect of mitral stenosis. As regarded the diagnosis, perhaps it would be impossible in such a case. The blocking of the cerebral vessels was probably of the nature of a thrombosis.

Mr. Barker said that he had lately met with a similar condition of the two auriculo-ventricular valves in a surgical post-mortem case at University College Hospital.

Dr. Burney Yeo asked how the right ventricle came to be so large when the lungs were not congested.

Dr. Taylor related a case of double stenosis of rheumatic origin. The double lesion certainly was not diagnosed.

Dr. Greenfield replied that, with respect to the lungs, they were not so much congested as in ordinary cases of mitral stenosis. The right auriculo-ventricular orifice was larger than the left, and the ventricles corresponded. The whole circulation might have been retarded.

Pleurisy invading the Lymphatics of the Lung.

Dr. Moxon related a case of rapid death in a ship-captain of thirty-nine, where the only obvious condition found post-mortem was sanguineous pus to the amount of three ounces in the right pleural cavity. After an illness of not more than three days, the patient was found to be sinking, with a pulse of 160 and respiration of 60. He died in thirty-six hours. Ten hours post-mortem the body was found to be decomposing although the weather was cold: three ounces of sanguineous pus lay in the right pleural cavity. This seemed little to kill a man. The liver was slightly fatty. On examining the right lung carefully, Dr. Moxon found that the subpleural lymphatics were choked with pus, which oozed on section, the pleura proper being free. The right main bronchus presented on its wall the black remains of two bronchial glands, up to which the pus-injected lymphatics could be traced. It appeared that there was a connexion between the condition of the glands and the choked vessels. In 1872, Dr. Moxon had showed two similar cases of pus in the subpleural lymphatics, and in both of these the bronchial glands were obstructed.

Dr. Greenfield inquired as to the state of the head and joints in this case. He had seen rapid death from acute arachnitis.

Dr. Powell asked whether evidence of purulent infection was found elsewhere. Sudden death had lately been explained in some cases by cerebral embolism. The obstruction of the bronchial glands might be considered an obstacle to infection.

Mr. Butlin suggested that the case might have been one of blood-poisoning with pleurisy.

Dr. Moxon replied that the case was not clear, but a simple contribution clinically and pathologically. The brain was not examined; there were no cerebral symptoms. He believed himself that the nutrition of the lungs had been lowered by bad drainage, and that when pleurisy supervened the system was unable to bear it. It was an interesting point that three times pus had been found in the lymphatics, accompanied in each case by grave symptoms. As for the disease being septicæmic, he believed with Dr. Wilks, that, in that event, the parenchyma beneath the serous membrane would have been affected.

Cancer in Liver and Pancreas, with Polypi in Portal Vein.

Dr. Wickham Legg showed specimens of this nature from the body of a woman of seventy-eight, who had been ill for twelve months before her death, and had suffered from persistent vomiting for the last three months of that time. She was never jaundiced; the liver felt large and nodulated. Post-mortem, the hepatic and common bile-ducts were found to be much dilated; the liver was much enlarged and nodular. The head of the pancreas was occupied by a new growth, soft and whitish-yellow; the pancreatic duct contained a polypus an inch in length. The portal branches contained polypi, adherent and smooth; they were connected with nodules externally. These nodules and that in the pancreatic duct, as well as the pancreatic tumour, were all of a cancerous nature.

Tubercle of the Liver.

Dr. Goodhart exhibited a fresh specimen of a liver, which appeared to be tubercular, from a man of thirty-two, who died of phthisis of the lungs and larynx. The lungs contained old cavities and fresh caseating disease. The liver was large, dark, and nodulated superficially, and presented numerous yellowish areas like carcinoma or abscess; the arrangement of these was, however, more like tubercles. Microscopical examination (which had not been completed) revealed not so much adenoid growth as fibrillar tissue and young cells, as in acute cirrhosis. (Referred to the Morbid Growths Committee.)

Cirrhosis of the Liver in a Child.

Dr. Cayley exhibited a specimen of cirrhosis of the liver from a girl of six years. The patient's health had been good until last June, when she was found to be suffering from ascites. During that month and the following, she was several times tapped; and she continued in fair health until December, when she died with hæmatemesis and convulsions. Post-mortem, well-marked cirrhosis of the liver was found; there was no other notable visceral change. With respect to the cause of the disease in this child, Dr. Cayley said that there was no reason whatever to suspect alcoholism. There was a slight suspicion of syphilis in the family. He believed that in such cases hereditary syphilis may be found to be the cause; at all events, syphilis was certainly the cause in some cases. He questioned whether spirit-drinking was ever the cause of cirrhosis in children.

Large Cyst of the Choroid Plexus.

Dr. Cayley exhibited, for Mr. George Brown, a large cyst of the choroid plexus from an infant of four months. A cyst, as large as a duck's egg, with thin walls and clear fluid contents, was found, post-mortem, perforating the corpus callosum and cerebrum and adhering to the dura mater. Traced

inwards, it was discovered to spring from the left choroid plexus. The opposite plexus, the rest of the brain, and the other viscera were healthy. During the child's life the disease was characterised by enlargement of the head, and frequent crying and whining. In the course of the last week acute symptoms supervened — persistent sickness, dilatation of the pupils, painful expression, and prominence of the left parietal eminence. There never was paralysis or any convulsion.

New Members.

During the evening the following gentlemen were elected members of the Society:—Charles N. Macnamara, F.R.C.S.; Heinrich Port, M.D.; and William Rose, F.R.C.S.

Tuesday, February 1.

George Pollock, F.R.C.S., President, in the Chair.

Mr. Hutchinson's address appears in another part of our columns.

Discussion on Syphilis.

Mr. Henry Lee said that the subject opened up by Mr. Hutchinson was so extensive that only portions could be discussed by individual speakers; and he would limit himself to a very few. And, first, he objected to Mr. Hutchinson's limitation of the stage during which syphilis was to be called a "blood disease." If we followed Mr. Hutchinson here, we wanted a better definition of the term "blood disease." For he had said that early gummata arose from disease of the blood; yet at a later stage, and in the inherited form—in the liver of a child, he had denied that gummata had such an origin. Next, with respect to the deposit and removal of syphilis, Mr. Hutchinson had classed all forms of the primary disease under one head. Why, then, was the result so various? Was it because of the time? or of the pus? or what? Mr. Lee believed that there were three distinct forms in which the products of inoculation were seen—first, a new material, circumscribed, without tendency to ulcerate or suppurate (the true infective chancre); second, a form which suppurated and ulcerated; and, third, the form in which solid matter was deposited without the characters of the first, but diffused itself around, and had a tendency to degenerate. These three forms were distinct, and diagnostic of different affections. The first was infective; the second never was; the third was an intermediate form, and was the cause of much of the confusion that existed on the subject.

Dr. Drysdale said that he could not understand how the theory of dualism could be said to be dead; it was still extensively held at home and abroad. He believed with Mr. Hutchinson that the second stage of syphilis might be much prolonged, even to the third year; thereafter mucous tubercles were never seen. It was impossible to say that tertiary symptoms were not due to a blood disease; women with such disease would bear dead and diseased children, and this fact was evidence of a blood disease. He agreed with Mr. Hutchinson that gummata may appear in the second stage; he had seen hemiplegia in a man with the roseola still out, and he had observed nodes within four months of infection. In acquired syphilis of children, tertiary symptoms were very rare. In the inherited disease, nervous symptoms were rare; but he had often seen such tertiary symptoms as ulcers of the leg, constriction of the pharynx, and nodes. With respect to the relation of scrofula to syphilis, Dr. Drysdale was at one with Mr. Hutchinson.

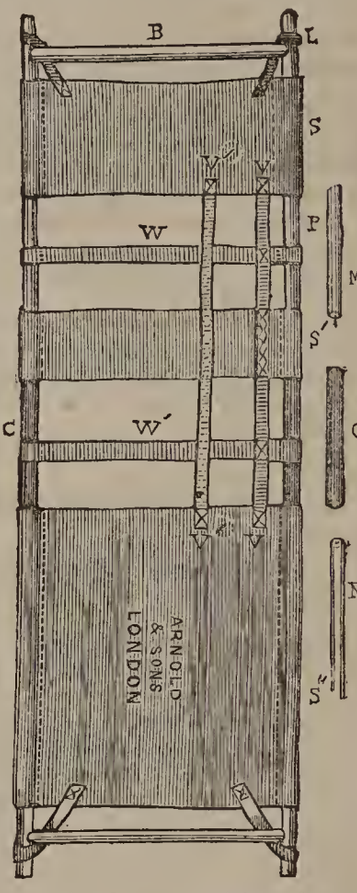
The discussion was adjourned.

Best Period for Ligature of the Funis.—At a recent meeting of the Société de Biologie, M. Budin read a communication (published in full in the *Progrès Medical* for January), giving an account of numerous investigations he had carried on in the Maternité, at the desire of M. Tarnier. From these it results that he is of opinion that the ligature and section of the cord should not be practised until one or two minutes after the cessation of the pulsations in the cord, a very much larger portion of the circulating blood being retained in the system of the infant than when the cord is at once tied and divided. Moreover, the detachment and expulsion of the placenta, according to M. Tarnier's experience, seem to take place more readily when the infant has been allowed to breathe and cry for some time before its separation is effected.—*Gaz. Méd.*, January 8.

NEW INVENTIONS AND IMPROVEMENTS.

NEW FORM OF STRETCHER.

In many cases of typhoid and other fevers, of peritonitis and other inflammations, of bedsore, and various chronic diseases, in many surgical and in obstetric cases, it is very desirable to have a mode of moving a patient from room to room, or from bed to bed, and a mode of changing the patient's bed and body-linen, without causing the least avoidable disturbance or excitement. The following description of a new stretcher which has been contrived for this purpose is by Mr. Charles R. B. Keetley, Assistant Demonstrator of Anatomy at St. Bartholomew's Hospital:—The chief principles on which it is constructed are—1. It can be placed under the patient piecemeal, and afterwards easily and without danger of mistake fitted together again. 2. It is only a skeleton of webbing in the part which sustains the back and buttocks, and thus allows bedsores and blisters to be easily dressed. 3. The cutaneous sensibility of the back is so extremely blunt that the network of webbing, coarse as it is, feels like a whole and undivided piece. Its chief advantages are—(1.) The most sensitive or feeble patient can be freely moved with no sense of discomfort, and no dangerous disturbance. (2.) Bedsores and blisters on the back can be easily dressed through its means, and even the back percussed and auscultated through it. (3.) Its details can be easily modified by any needlewoman, to suit the necessities of particular cases, without altering the apparatus in principle. (4) It is light and portable; it packs into a parcel three feet long, and five inches in diameter. In using it, the pieces S, S′, S″, W, and W′ are passed under the patient gently, one by one, and the poles then slipped through the hems and loops. Two chairs, each having one of the cross-pieces B upon it, can sustain the patient while the bed is made, etc. The stretcher has been used with satisfaction at the Queen's Hospital, Birmingham, and at St. Bartholomew's Hospital, London. It is made by Messrs. Arnold and Sons, 35 and 36, West Smithfield, London, E.C.



Cardiff Medical Society.—The following is a list of the officers of this Society for the present year:—*President:* Edward Hier Evans, Esq. *Vice-President:* Richard Frederic Nell, Esq. *Committee:* The President, the Vice-President, and the Secretary; Henry James Paine, M.D.; Alexander Paul Fiddian, M.B.; James Milward, Esq.; William Price, M.B. *Hon. Sec. and Treasurer:* Alfred Sheen, M.D.

Wadding in place of Sponge.—M. Lucas-Championnière strongly recommends the use of wadding in the place of sponges, being so cheap that it can be thrown away after employing it to clean wounds, etc. When we try to wet a sheet of wadding, we find that it floats on the water without imbibing it, so that it is withdrawn scarcely moistened. But if we keep fine carded wadding in the water while we knead and compress it forcibly, it can be made to imbibe very easily. A considerable quantity of water is thus taken up, which is rendered again to gentle compression. This body is softer to the touch than the finest sponge, and its filaments do not separate as might be supposed. Some of these pseudo-sponges may be easily prepared in advance, and kept in a vessel full of water ready for use.—*Révue Médico-Photographique*, October.

OBITUARY.

THE LATE PROFESSOR PITHA.

On December 28, 1875, this distinguished surgeon died, aged sixty-five years. He had been professor at the Josephinum Academy at Vienna since 1857, and was previously professor of surgery at Prague for many years. Two years ago he infected himself with septic matter during an operation, and never more than partially recovered from its effects. The estimation in which he was held in Austria and also in Germany is shown by the memorial address which Professor Billroth delivered to his class a few days after Professor Pitha's death, and to which we are indebted for the following details. Pitha was a peasant's son, and therefore a poor student, but he rose to be "one of the most distinguished teachers, and one of the most remarkable surgeons in Europe." One element in his success was the cosmopolitanism, so to speak, of his intellect, which made him early seek to make the knowledge of the surgeons in other countries his own by personal intercourse with them, and by the diligent study of foreign literature. He repeatedly visited the different German medical schools, and also those of France and England, with the view of self-improvement. His position at Prague was in its way peculiar, for he had the supreme control of all the surgical cases in the large hospital, and so was able quite early in life to put his theoretical knowledge to the test of experience. Pitha possessed in a remarkable degree the faculty of interesting himself in the study of natural phenomena, as well as in the progress of his patients; to him what was common and of every-day occurrence still never lost its charm. "He was," to quote Professor Billroth's own words, "a man who obtained the confidence of those whom he treated by his unvarying, attentive, earnest, and judicious behaviour, which showed that he regarded a patient not simply in the light of an unfortunate person, but as an object to be studied with all the appliances which were at the command of his intellect." We are tempted to quote Professor Billroth's comment on this feature in Pitha's character—his intense desire to acquire and to apply knowledge,—as they have an application far beyond the circle to which they were originally addressed. He says, "Whoever has not felt this same inward desire early in his medical career should give up the study of medicine as soon as possible. Patients have a marvellous instinct for discovering whether a doctor possesses it, and in their eyes its absence is scarcely compensated for by a reputation for the most stupendous erudition and dexterity." Professor Pitha's intense love of knowledge for its own sake made itself felt, not only in the consulting-room and hospital, but also in the lecture-theatre. He instilled some of his own enthusiasm into his pupils, and consequently was a successful and an honoured teacher. The lesson which Professor Billroth draws from the life of Pitha is one which is too often disregarded in medicine as in other pursuits. Self-advancement rather than self-improvement is the aim of the majority of men, and even with the help of great examples we too seldom remember that "we should make our lives sublime."

Peterborough Infirmary.—At a meeting of the Governors held on Friday, January 28, two large wards were opened in this Hospital as a memorial to the late Honourable G. W. Fitzwilliam, whose father, the late Lord Fitzwilliam, presented the Infirmary to the town of Peterborough. Dr. Leonard Cane, M.D. and B.S. Lond., was at the same meeting unanimously elected Consulting Surgeon to the institution.

At the annual meeting of the Liverpool Medical Institution, held on January 11, the following office-bearers were elected:—*President:* James Turnbull, M.D., F.R.C.P. *Vice-Presidents:* Dr. Steele, Mr. Charles B. Wilson, Dr. Glynn, Mr. Higginson. *Treasurer:* Dr. Oxley. *Hon. Secretary:* Dr. Lyster. *Hon. Secretary of Ordinary Meetings:* Mr. Chauncy Puzey. *Hon. Librarian:* Dr. William Carter. *Members of Council:* Dr. John Bligh, Dr. Campbell, Dr. Dickinson, Dr. Grimsdale, Dr. Waters, Dr. Adam, Dr. Armstrong, Dr. J. Cameron, Dr. Parsons, Dr. Pollard, Dr. Rawdon, Mr. George H. Snape. *Microscopical Committee:* Dr. Davidson, Dr. Braidwood, Dr. Wm. Carter, Dr. Caton, Dr. Glynn, Dr. Lupton, Mr. Newton, Mr. Rushton Parker. *Auditors:* Dr. Bailey and Dr. Glynn.

MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen were admitted Members on Thursday, January 27, viz.:—

Bridges, Robert, M.B. Oxford, St. Bartholomew's Hospital, E.C.
Champneys, Francis Henry, M.B. Oxford, 4, Oakhill-park, N.W.
Finlay, David White, M.D. Glasgow, Middlesex Hospital, W.
Whistler, William McNeill, M.D. Pennsylvania, 80A, Brook-street, W.
Venn, Albert John, M.D. Aberdeen, 30, New Cavendish-street, W.
Gover, Robert Mundy, Millbank Prison, S.W.

Royal College of Surgeons of England. — The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 27th ult., viz:—

Caffyn, Stephen, Silverdale, Sussex, student of University College.
Cooper, John Nield, L.K.&Q.C.P. Ire., Hyde, Lancashire.
Ellis, William Ashton, Sloane-street, Chelsea, of St. George's Hospital.
Kirtikar, Kanoba Ranchhoddas, Bombay, of University College.
Nicholls, Frederick, L.S.A., Stockwell, of the Westminster Hospital.
Nicholson, John Francis, Brigg, Lincolnshire, of St. Thomas's Hospital.
Pearless, Walter Relf, East Grinstead, of St. Bartholomew's Hospital.
Pickup, William James, Bacup, Lancashire, of University College.
Price, Robert John, University-street, of University College.
Prouger, Charles Ernest, Crawley, Sussex, of St. Thomas's Hospital.
Shoolbred, William Andrew, Wolverhampton, of St. Bartholomew's Hospital.
Roberts, William Stewart Weeding, Earl's-court-road, of King's College.
Rogers, Thomas King, Southgate-road, of University College.
Russell, James, M.B. Aber., Croydon, of St. Bartholomew's Hospital.
Sandes, Walter Hussey Fitton, New Wandsworth, of St. George's Hospital.
Thurstan, Edward Page, B.A. Cantab., Guernsey, of St. Thomas's Hospital.
Walford, Robert, Colchester, of University College.
Whitelegge, Benjamin Arthur, Tideswell, Derbyshire, of University College.
Wright, Henry, Lutterworth, Leicestershire, of Guy's Hospital.

The following passed on the 28th ult., viz.:—

Allott, Wordsworth Leach, Hoylands, Yorks, student of the Leeds School.
Boys, Arthur Henry, Brixton-hill, of St. Thomas's Hospital.
Burton, Samuel Herbert, Great Yarmouth, of University College.
Fox, Thomas Colcott, B.A. Cantab., Broughton, Hants, of University College.
Grimwood, Harry Charles, L.S.A., Stowmarket, of King's College.
Hayes, Francis George, West Brompton, of King's College.
Jones, Abraham Emrys, M.B.&M.C. Edin., Manchester, of the Edinburgh School.
McCarthy, Justin McCallum, St. Thomas'-terrace, S.E., of Guy's Hospital.
McCullagh, Thomas Alexander, Liverpool, of Guy's Hospital.
Perry, Edward Verdon, Reepham, Norfolk, of St. George's Hospital.
Richmond, Charles Ernest, L.S.A., Manchester, of the Manchester School.
Rockliffe, William Craven, M.A. Cantab. and L.S.A., Hull, of St. Thomas's Hospital.
Ryley, James, Louth, Lincolnshire, of University College.
Scott, John William, Dronfield, Yorkshire, of St. Thomas's Hospital.
Stephenson, William Arnold, Weymouth, of University College.
Wartenberg, Victor Adolph, Lytham, Lancashire, of the Manchester School.
Wood, Edwin Stanley, Newport, Mon., of the Liverpool School.

The following passed on the 31st ult., viz.:—

Alexander, Charles Thompson, Great Dover-street, student of Guy's Hospital.
Boswell, Alexander, L.S.A., Putney, of St. Bartholomew's Hospital.
Burton, John Randell, L.S.A., Lee, Kent, of Guy's Hospital.
Chamberlain, Edward Twyford, Dartmouth, of University College.
Coombs, Graham Lowe, Chippenham, of University College.
Darbishire, Samuel Dukinfield, M.A. Oxon., Conway, North Wales, of St. Bartholomew's Hospital.
De Watterville, Baron Armand, Pembridge-square, of University College.
Evans, Evan William, Bath, of King's College.
Ford, Arthur Vernon, Portsmouth, of St. Thomas's Hospital.
Johnson, John, M.B., Melbourne.
Little, Henry Selby, Reading, of St. Bartholomew's Hospital.
Phelps, William, L.S.A., Weston-super-Mare, of Guy's Hospital.
Quartley, Francis Cecil, Swindon, of the Middlesex Hospital.
Rogers, Frank George Augustus, Bedford, of Guy's Hospital.
Scovil, Francis Simonds, St. John, New Brunswick, Canada, of St. Mary's Hospital.
Spokes, Peter Sidney, Reading, of University College.
Wilding, William Arthur, L.K.&Q.C.P. Ire., Church Stretton, of St. Bartholomew's Hospital.
Williams, William Henry, Sherborne, Dorset, of University College.

Of the 153 candidates examined, fourteen passed in Surgery, and when qualified in Medicine will be admitted Members of the College; and forty having failed to acquit themselves to the satisfaction of the Court, were referred to their professional studies for six months.

Oxford and Cambridge men will recognise in the above list the well-known name of one of the most distinguished oars in the annual aquatic tournaments between those Universities.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, January 27:—

Batchelor, Henry Thomas, Bancroft-road, Mile End-road.
Roberts, Henry William, Leeds.

Richmond, Charles Ernest, Manchester.
Roche, Eugenius Alfred, Sunderland-terrace, Bayswater.
Rockliffe, William Craven, Hull.
Schön, James Edward, Warley Lodge, Brondesbury, N.W.
Wilson, George, The Villas, Erith, Kent.

The following gentlemen also on the same day passed their primary professional examination:—

Foster, William, Westminster Hospital.
Livesey, Ernest William, St. Bartholomew's Hospital.

At the preliminary examination in Arts held at the Hall of the Society on Friday and Saturday, January 28 and 29, 45 candidates presented themselves, of whom 14 were rejected, and the following 31 passed, and received certificates of proficiency in general education in the first class, in order of merit:—

Edwin E. L. Bowling, John Fuller Joyce, John Lawrence, and Frances Helen Prideaux. Fifth: Stephen Henry Appleford and Ronald Volckman. Seventh: Ashley Bird and Charles Nathaniel Simons.

In the second class, in alphabetical order:—

Arthur J. M. Armstrong, William Taylor Bell, Reginald Hewitt Boyson, George Thompson Burbidge, Francis Henry M. Burton, George D. Crowther, Laura Ormiston Dibbin, William Frederick Everett, B. C. E. F. Gunn, Herbert L. Hawksley, Robert Holloway, James Prytherch James, J. D. Stacey Jones, Frederick John Lilley, John Palmer, John Peché, William de Mornet Riddell, Francis Stewart Simmonds, George Stocker, Charles Edward Strickland, Benjamin Emile Studer, James Turton, and Francis Verdon.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Dr. M. Magil, Staff-Surgeon, to Sheerness Yard; Dr. A. Mitchell, Surgeon, to Chatham Yard; Francis K. M. Loftie, Surgeon, to the *Indus*; Thomas Smith Burnett, Staff-Surgeon, to the *Opal*. In accordance with the provisions of Her Majesty's Order in Council of February 22, 1870, Fleet-Surgeon Robert Charles Scott has been placed on the retired list of his rank from the 20th inst.

BIRTHS.

Dorin.—On January 27, at 344, Clapham-road, the wife of Arthur Dorin, M.R.C.S., of a daughter.

Kavanagh.—On January 30, at Ierne House, Wickham-road, Lewisham, the wife of P. Kavanagh, M.D., of a son.

Kidd.—On January 24, at Ballymena, co. Antrim, the wife of Abraham Kidd, M.D., M.R.I.A., of a son.

Milson.—On January 27, at 88, Finchley-road, South Hampstead, the wife of R. Henry Milson, M.R.C.S. Eng., of a son.

Travers.—On January 26, at 2, Phillimore-gardens, Kensington, W., the wife of W. Travers, L.R.C.P. Lond., F.R.C.S. Eng., of a son.

MARRIAGES.

Cross — Barrow.—On January 27, at St. Ann's Church, Rainhill, Alexander Cross, of Spindlehow, Lanarkshire, to Catherine Jane, elder daughter of the late David Barrow, M.D., of Prescot, Lancashire.

Hopgood—Graham.—On January 26, at St. Luke's, West Holloway, John Govett, third son of Joseph Hopgood, M.R.C.S., of Slough, Bucks, to Alice Mary Graham, stepdaughter of Charles Kilburn, Esq., of 3, Cornwall-villas, Tufnell-park, N.

DEATHS.

Bartlet, Mary Caroline, wife of Alexander Henry Bartlet, M.D., Ipswich, on February 1, aged 73.

Campbell, Mary Ann, wife of William Campbell, L.R.C.S. Edin., L.S.A., and younger daughter of the late Rev. William Raynes, Rector of Ripe, Sussex, at 40, Wellington-square, Hastings, on January 27, aged 34.

Dumbreck, Sir David, K.C.B., M.D. Edin., L.R.C.S., Inspector-General (retired), Honorary Physician to the Queen, at Florence, on January 24.

Hardinge, Henry, M.D., M.R.C.P., M.R.C.S. Eng., F.R.G.S., at 18, Grafton-street, Berkeley-square, on January 28, aged 56.

Mason, J. D., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at Lewisham High-road, the residence of his father, Dr. S. Mason, of Finsbury-circus, on January 30, aged 30.

Peppin, Caroline, widow of B. Peppin, Esq., late Garrison Surgeon of Trichinopoly, at 36, Park-street, Bath, on January 27.

Rouse, Thomas M., M.R.C.S. Eng., L.S.A., Assistant-Surgeon H.M. Prison, Pentonville, on January 26, aged 36.

Voelcker, George Henry, M.B., B.S., M.R.C.S. Eng., eldest son of Dr. Augustus Voelcker, F.R.S., of 39, Argyll-road, Kensington, at University College, of diphtheria, on January 28, aged 23.

Wetherfield, John, M.R.C.S. Eng., L.S.A., formerly of Henrietta-street, Covent-garden, at Croom's-hill, Greenwich-park, on January 25, aged 76.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Birmingham Amalgamated Friendly Societies' Provident Medical Institution.—Resident Surgeon. Candidates must be married and duly qualified. Applications, with testimonials, to the Secretary, 197, Camden-street, Birmingham, on or before February 16.

Bristol General Hospital.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

County Palatine of Lancaster.—County Analyst. Applications, with testimonials, to the Clerk of the Peace, 34, Winckley-square, Preston, on or before February 18.

Kent County Lunatic Asylum, Barming Heath, Maidstone.—Medical Superintendent, and a Second Assistant Medical Officer. Candidates for both appointments must be duly qualified and registered. Applications, with testimonials, to Messrs. Beale and Hoar, at the Asylum, on or before February 11.

Middlesex Hospital. — Ophthalmic Surgeon. Applications before February 24.

North London Consumption Hospital.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

Odd-Fellows' Dispensary, Hull.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

Royal Hospital for Diseases of the Chest, City-road.—Surgeon. Applications, with testimonials, to the Secretary, on or before Feb. 28.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bosmere and Claydon Union.—Mr. Lionel W. Moore has resigned the Debenham District; area 13,529; population 3951; salary £74 per annum.

Newent Union.—Mr. C. M. Campbell has resigned the Redmarley District; area 10,519: population 2956; salary £60 per annum.

Saffron Walden Union.—Mr. F. F. Welsh has resigned the Fifth District; area 2698; population 612; salary £15 per annum. Also the Sixth District; area 12,830; population 4657; salary £75 per annum. Also the Workhouse. Mr. Harley has resigned the Seventh District; area 14,981; population 5893; salary £86 10s. per annum.

Westbourne Union.—Mr. H. W. Dixon has resigned the Second District; area 8870; population 2563; salary £45 per annum.

APPOINTMENTS.

Burton-upon-Trent Union.—John Hamilton, L.R.C.P. Edin., L.F.P.& S. Glasg., to the Gresley District.

Chorlton Union.—Francis Rhodes, M.D., C.M. Glasg., L.R.C.P. Lond., to the Eighth District.

Leicester Borough.—Henry Meadows, M.B. and C.M. Edin., as Analyst for one year.

Royston Union.—Henry M. Madden, M.D. and M.C. Queen's Univ. Ire., L.A.H. Dub., to the Fifth District.

Somersetshire.—Mr. Wm. W. Stoddart as Analyst for the County, for two years.

Professor Schröder, of Erlangen, has been offered and has accepted the chair of Obstetric Medicine in the University of Berlin, vacant by the death of Professor Martin. The new Professor is well known in England as the author of two excellent treatises on Midwifery and Diseases of Women.

The Indications for Quinine in Surgical Practice.—M. Verneuil states that quinine may be beneficially employed in treating ataxic, neuropathic, and septicæmic complications. 1. It is not necessary for the ataxic phenomena to be of a true intermittent type, for quinine exercises its regulative action when no palustral element exists. 2. It is espccially valuable in combating neuropathic phenomena, and nowhere can its influence be better appreciated than in affections of the eye. M. Verneuil is in the habit of prescribing it after operations on this organ, and he has frequently obtained most remarkable results. 3. In septicæmic accidents the salutary action of quinine is beyond all doubt, and given in large doses it still constitutes the best agent we have to oppose to purulent infection. 4. As an antiseptic it appears to act in two modes—modifying and diminishing the formation of pus, and operating as a direct antiputrefactive,—so that it is advantageously employed as a topical antiseptic. 5. Its surgical employment is especially indicated for women and children, who are more disposed than men and adults to ataxic and neuropathic accidents.—*Gaz. Méd.*, January 29.

Impression produced on the Skin by Different Heated Liquids.—M. Bloch has communicated to the Société de Biologie the results of his experiments, which show that liquids become burning at very different temperatures. He takes as a term of comparison the thermometrical degree which allows of the immersion of the hand during two minutes without producing great pain. He finds that this is 48° C. for mercury, 49° for water and for solution of tannin, 51° for solution of carbonate of soda, 52° for alcohol and for milk, 55° for essence of turpentine and starch-paste, 57° for glycerine, 60° for oil, and 65° for beef-fat. He explains most of the differences by the greater or less facility with which imbibition by the epidermis takes place, and especially those observed in aqueous solutions and fatty bodies. This hypothesis cannot apply to mercury, and its action is probably explained either by its great conductibility, or by the pressure in virtue of its density which it exerts on the immersed part—a pressure which renders the contact closer and the propagation of caloric easier.—*Révue Médico-Photographique*, October.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JANUARY.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	22·53	0·051	0·165	0·001	15·9	3·8
West Middlesex	22·13	0·053	0·147	0·000	15·6	3·8
Southwark & Vauxhall	22·23	0·057	0·168	0·001	15·7	3·8
Chelsea	22·07	0·066	0·147	0·001	15·6	3·8
Lambeth	21·87	0·057	0·158	0·001	15·5	3·8
Other Companies.						
Kent	27·83	0·011	0·365	0·000	19·8	5·6
New River	21·57	0·034	0·169	0·000	15·4	3·6
East London	23·37	0·056	0·171	0·001	15·8	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in the case of all the Thames Companies except the West Middlesex.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 111,420,340 gallons; and the number of houses supplied was 518,606. This is at the rate of 33·7 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 28·2 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

THE LAW OF MEDICAL SECRECY IN FRANCE.—Dr. Berrut, a Paris practitioner, gives an account, in the *Gazette des Hôpitaux* of January 29, of a successful contest he has concluded against the municipal and law authorities on a question of medical secrecy. It is the law in France that the occurrence of a birth must be declared, and the infant presented within three days afterwards, and where there is no father to make such declaration, the medical attendant must make it, stating the time and place of birth, the sex and prenamc of the infant, together with the prenames and names, occupations, and residence of the father and mother. Having delivered a woman of a female infant, who desired the fact to be kept secret, M. Berrut attended to make the declaration of the birth, and present the child. This he gave a name to, and declared it to be born of an unknown father and mother, and refused to give the address of the latter. Its registration was refused, and he was menaced with the fine and imprisonment which the Penal Code attaches to such refusal. He, however, believing that a designation of the mother's address would betray her secret, pleaded the provision of the Penal Code relating to medical secrecy, punishing those who revealed any secrets entrusted to them in their capacity of medical attendants; and having carried the case before the Civil Tribunal of the Seine, obtained a decision in his favour, compelling the authorities to register the birth without the particulars refused, and to pay the costs of the application.

STUDENTS OF THE BERLIN UNIVERSITY IN 1876.—The number of these, which had been for some late sessions on the decline, is now again on the increase. For the summer session of 1875 there were 1724 students; and as 465 of these left, there remained for the winter session (1875-76) 1259; and as for this session there entered 884, this increased the number to 2143—an increase which had not been witnessed for many years. They were distributed into the different faculties as follows:—Theology 1621, jurisprudence 807, medicine 263, philosophy and natural science 911. Besides the matriculated students, there were 138 pupils of the Frederic-William Institute, and 48 from the Medico-Chirurgical Academy. Of the 2143 matriculated students, 1722 were Prussians, and 421 other Germans or foreigners, the 263 medical students being composed of 174 Prussians and 89 non-Prussians. In the winter session of 1874-75 there were but 1824 matriculated students. It is in the faculties of philosophy and jurisprudence that the increase has taken place, the medical faculty continuing still in a depressed condition. Thus, in the summer of 1873 there were 340 medical students; in 1873-74, 333; in the summer of 1874, 299; in 1874-75, 276; in the summer of 1875, 259; and in 1875-76, 263. This stationary condition must be regarded even as satisfactory, seeing that the medical students are diminishing in numbers in all the German universities. The number of the military medical pupils has increased from 154 to 186.—*Berliner Klin. Woch.*, January 3.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Fearnside is thanked. We shall duly consider the matter.

C. G. W.—The next examination for the Radcliffe Travelling Fellowship will commence in the medical department of the Museum, Oxford, on Wednesday, February 9.

Senex.—The cynical remark was—"Posterity can do nothing for us: why should we do anything for posterity?"

X., a Constant Reader.—We cannot spare room in our columns for the statement you ask for; but you will find all the information you require in several works—for instance, in "A Guide to the Qualitative and Quantitative Analysis of the Urine, designed especially for the Use of Medical Men," by Dr. C. Neubauer and Dr. J. Vogel. Fourth edition. Translation published by the New Sydenham Society, London, 1863.

Medicus.—You will find the regulations, etc., for candidates for a degree or licence in State Medicine, at some of the universities, in our Students' Number, vol. ii., page 319, 1875. At page 554 of the same volume you will find the examination papers set at the first examination for the Cambridge licence. At that university any registered medical practitioner twenty-four years of age may be a candidate.

J., Sutton V.—The use of the title "professor" has a wide scope. Newton was Lucasian Professor of Mathematics, but it is assumed by a vendor of pills and ointment, by a teacher of calisthenics—indeed, to these may be added a list *ad infinitum*. Swift says of professors—"Professors in most sciences are generally the worst qualified to explain their meanings to those who are not of their tribe."

A New Magazine.—We learn that a new monthly magazine, likely to excite some attention, is to appear in March next, under the editorship of the Rev. C. Voysey, B.A. It is to be entitled the *Langham Magazine*, and each number is to contain one article by the editor, written, not in a controversial, but in a genial and conciliatory spirit. The list of contributors comprises some well-known names, and the publication is to be exclusively dedicated to high-class literature.

Mr. Simpson.—No Hunterian Oration will be delivered this year at the College of Surgeons.

M.D. Aberdeen, and Mr. Campbell.—It is certainly a curious circumstance, but on inquiry we find that no gentleman of the name of "H. G. Orlebar, of Aberdeen," passed his examination at the College of Surgeons, as stated last week in the *Lancet*—for the simple reason that no candidate of that name presented himself.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was one of the candidates who passed the primary examination in anatomy and physiology at the College of Surgeons, London, at the examination held on January 17, but I have not seen my name in the list in your journal. I am, &c., R. W. HEWSON.

Edinburgh, February 2.

PLYMOUTH POOR-LAW DISTRICTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your advertisement-sheet will, in all probability, contain this week the announcement that there is an appointment vacant in the Plymouth Union for a District Medical Officer, and, doubtless, some young aspirant may be tempted to bite at the bait.

To prevent his being unwittingly hooked for much work with very little pay, I write to state that the gentleman who has resigned, after only three years' tenure of office and residence in that town, has shaken the dust from his feet, and rightly gone to try his fortune elsewhere. I say "rightly," for that town is overrun with medical men, and there is little chance, if any, for a young doctor to make a living by private practice, and if he hopes to do so by the Poor-law appointment, I would advise him to "look before he leaps."

The population of Plymouth is about 70,000, and is divided into three medical relief districts. The medical officer's salary is £90 a year, and all drugs (except quinine, cod-liver oil, and, in cancer cases, opium) have to be found and dispensed for that munificent sum. There are no extras except for visiting and certifying for pauper lunatics, and pecuniarily this makes but a trifling addition to the stipend.

From some returns I have by me, it also appears that each district medical officer has an average number of about 2000 cases to attend. From this an idea may be formed of the amount of work in visiting and dispensing and of the outlay for drugs.

Some five years ago, at a meeting of the British Medical Association, at which many guardians were present, I pointed out the large amount of work done by the medical officers, and the small amount of pay which was given; I also showed that if the guardians really desired to reduce their very large yearly outlay in gross relief, they should begin by making their Poor-law medical relief system more efficient, by providing all drugs and a dispenser, and by paying at least £100 a year to each medical officer. I hoped at the time that I had done some good, especially as I was backed by the local press; but it appears that matters have since remained *in statu quo*, and unless you lend your aid in exposing this system of medical relief, there seems little prospect of improvement. I am, &c.,

33, Dean-street, Soho, W., February 1. JOSEPH ROGERS.

COMMUNICATIONS have been received from—

X.; Mr. J. de Courcy Young; Mr. F. Gordon Brown, London; The Registrar of the Royal College of Physicians, London; Dr. Sparks, Mentone; The Registrar of Apothecaries' Hall, London; Dr. L. Cane, Peterborough; Mr. Wm. Adams, London; Professor Tyndall, London; Dr. Davidson, Liverpool; Dr. J. R. Gray, Utica; Dr. Sheen, Cardiff; Dr. J. Rogers, London; Our Liverpool Correspondent; Dr. J. Wickham Legg, London; The Registrar-General, Edinburgh; Dr. Bruce, London; Dr. J. Pearson Irvine, London; Mr. W. E. Poole, London; Dr. James Dunlop, Glasgow; Mr. J. Douglas Hemming, London; Mr. Jonathan Hutchinson, London; Mr. J. Chatto, London; Dr. Ogston, Aberdeen; Dr. W. R. Smith, Aberdeen; Mr. T. Pick, London; Dr. Letheby, London; The Secretary of the Royal Institution, London; Dr. Fearnside, Preston; Mr. R. W. Hewson, Edinburgh; Mr. J. A. Paddock, London; Medicus.

BOOKS AND PAMPHLETS RECEIVED—

Bentley and Trimen's Medicinal Plants, part v.—Fox's Atlas of Skin Diseases, part v.—Cassell's Family Bible, part i.—Morocco and the Moors, by A. Leared, M.D.—Medical and Surgical Memoirs, by Joseph Jones, M.D.—Pavy on the Production of Glycosuria by the Effect of Oxygenated Blood upon the Liver.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Giornale di Medicina Militare—Anales de Ciencias Médicas—The Medical Examiner—Science Gossip—Edinburgh Medical Journal—The Veterinarian—Richmond and Louisville Medical Journal—Liverpool Daily Courier—L'Archives Générales de Médecine—Recueil d'Ophthalmologie—American Practitioner—Glasgow Herald—Science Gossip—Obstetrical Journal.

APPOINTMENTS FOR THE WEEK.

February 5. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. P. Pullan, on his "Excavations in Asia Minor."

7. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. R. J. Lee, "Description of a Machine for creating a Warm Atmosphere suitable for Pulmonary Complaints." Dr. De Havilland Hall, "A Man with Transposition of Viscera." Mr. Richard Davy, "Two Cases of Reamputation."

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson, "On Dermatology."

Royal Institution, 2 p.m. General Monthly Meeting.

8. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Vandyke Carter, "On the Bouton de Biskra (Mycosis cutis chronica). A paper by the late Mr. G. Gascoyen will be read, "On Sphacelus of the Thyroid Gland."

9. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Annual Meeting for the Election of Officers, 7½ p.m.), 8 p.m. The Hunterian Oration will be delivered by Dr. H. G. Sutton.

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson, "On Dermatology."

10. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

11. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Mr. T. Holmes, "On Recurrent Tumour of Shoulder: Removal of Scapula and half the Clavicle." Dr. Geo. Brown, "On a Case of Reduction of Partial Dislocation of Astragalus of long standing." Mr. Pugin Thornton, "On a Case of Œdema of the Larynx." Mr. H. G. Trend, "On a Case of Purpura Rheumatica."

Hunterian Society, 6 p.m. Hunterian Dinner at the Albion, Aldersgate-street; Dr. Sedgwick Saunders in the chair.

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson, "On Dermatology."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. W. Crookes, "On the Mechanical Action of Light."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 29, 1876.

BIRTHS.

Births of Boys, 1412; Girls, 1321; Total, 2733.
Average of 10 corresponding years 1866-75, 2346·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	794	843	1637
Average of the ten years 1866-75	787·4	769·4	1556·8
Average corrected to increased population ...	...	...	1666
Deaths of people aged 80 and upwards ...	...	...	73

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	6	9	...	12	...	5	...	5
North... ...	751729	...	8	15	2	24	1	3	1	2
Central ...	334369	...	8	8	1	8	...	...	...	...
East	639111	...	5	11	1	18	...	3	1	2
South... ...	967692	...	22	36	3	26	...	7	2	6
Total	3254260	...	49	79	7	88	1	18	4	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·228 in.
Mean temperature	40·2°
Highest point of thermometer	53·0°
Lowest point of thermometer	26·5°
Mean dew-point temperature	36·4°
General direction of wind	Variable
Whole amount of rain in the week...	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 29, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Jan. 29.	Deaths Registered during the week ending Jan. 29.	Temperature of Air (Fahr.): Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.): Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2733	1637	53·0	26·5	40·2	4·55	0·00	0·00
Brighton	100632	42·7	62	46	48·0	28·1	40·0	4·44	0·00	0·00
Portsmouth ...	124837	27·8	65	51	...	...	...	...	...	...
Norwich	83430	11·2	62	40	49·5	29·8	39·4	4·11	0·00	0·00
Plymouth	72230	51·8	50	22	52·5	30·0	42·9	6·06	0·00	0·00
Bristol	199539	44·8	161	101	50·6	27·9	40·5	4·72	0·06	0·15
Wolverhampton ...	72549	21·4	69	39	50·0	25·8	39·7	4·28	0·02	0·05
Birmingham ...	371839	44·3	326	225	48 0	27·2	39·5	4·17	0·26	0·66
Leicester	113581	35·5	105	54	47·2	28·0	39·2	4·00	0·01	0·03
Nottingham ...	93627	46·9	70	61	47·5	28·4	37·6	3·12	0·03	0·08
Liverpool	521544	100·1	438	304	49·8	35·0	42·2	5·67	0·03	0·08
Manchester ...	357917	83·4	312	221	51·5	25·0	41·3	5·17	0·00	0·00
Salford	138425	26·8	140	102	54·3	29·2	41 2	5·11	0·00	0·00
Oldham	88609	19·0	81	70	...	...	...	...	...	...
Bradford	173723	24·1	126	92	53·0	28·8	42·7	5·95	0·02	0·05
Leeds	291580	13·5	240	156	50·0	33·0	40·6	4·78	0·00	0·00
Sheffield	274914	14·0	218	114	57·5	31·5	41·9	5·50	0·00	0·00
Hull	136933	37·7	125	64	47·0	30·0	38·2	3·44	0·00	0·00
Sunderland ...	108343	32·8	80	39	53 0	33·0	43·3	6·28	0·00	0·00
Newcastle-on-Tyne	139929	26·1	124	70	50·0	28·0	38·2	3·44	0·00	0·00
Edinburgh	215146	51·3	150	95	56·0	32·0	45·9	7·72	...	...
Glasgow	545144	90·4	395	303	51·0	38·5	45·2	7·33	0·70	1·78
Dublin	314666	31·3	182	209	56·5	40·8	48·2	9·00	0·03	0·08
Total of 23 Towns in United Kingdm	8028595	37·7	6314	4115	57·5	25·0	41·3	5·17	0·06	0·15

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·23 in. The highest was 30·44 in. on Monday evening, and the lowest 30·12 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture III.

DOUBTFUL SEX.

The question of *the sex* of an individual, either *dead* or *alive*, not unfrequently arises in juridical medicine; and from the earliest *fœtal period* at which an independent existence may be maintained, the sex may fall to be settled, either as *an independent question*, or as *an element in other inquiries*.

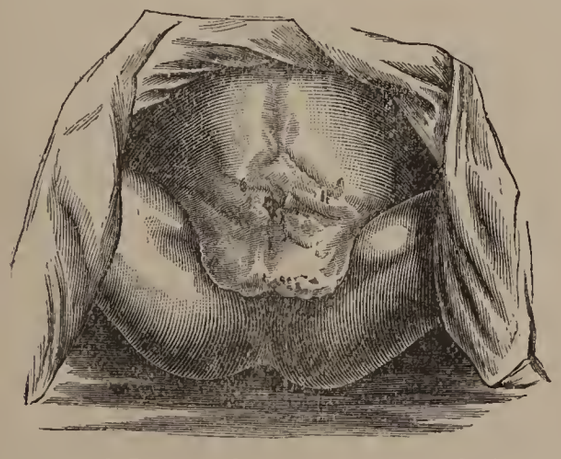
The question of the father's *tenancy by the courtesy*—or his right to the management of its property—depends on the sex of his new-born infant; whose sex may also regulate the order of succession to [his] property.

The validity of marriages, too, has not unfrequently been tried by determining whether the individual belonged to the sex alleged at and before the time of the union; while, again, the question of sex may arise in questions of personal identity.

In the great majority of cases, as may be readily supposed, the settling of the sex to which a person belongs is a very simple affair; the *sexual peculiarities* suffice for this. But cases occasionally occur which present difficulties of a more or less serious sort. Thus (1), it may be necessary for the identification of a dead body, and for this purpose to determine the sex to which the individual belonged, *where it has suffered mutilation*, and *the sexual organs are wanting;* or where *only portions of the skeleton* have been found. (2.) Even where the body, alive or dead, is entire, its *imperfect development* may leave the real sex difficult to be ascertained, or even impossible to be made out.

Of this last a striking instance occurred in the practice of Dr. Wilson, of Old Meldrum, to whom I was indebted for an opportunity of examining the child, and obtaining the wax cast before you. When seen by me in May, 1867, the child was in its eighth month, and had been treated as a female. The urine and fæces passed out by a small cloaca betwixt the pubis and umbilicus. As will be seen, there was no anus. A soft body, of the size of a large pea, in front of the pelvis, might have been taken for an abortive clitoris, or a very diminutive and imperforate penis. Two folds of integument, with but very little prominence or distinctness, might have been characterised as imperfectly formed labia, or as mere vestiges of a split scrotum. In one of these folds a soft kernel was indistinctly visible, which might pass for the rudiments of a testis. (*Vide* Fig. 1.) From this,

Fig. 1.



Dr. Wilson and I were shut up to the conclusion that the sex of the child could not be determined—at least, during its life—if even the opportunity of an examination after its death might assist in the determination of the point. This latter event, however, left the case in nearly its previous obscurity. The infant, which was in a sickly state at the time of our examination, died eight months afterwards without any obvious cause. With considerable difficulty and hesitation a sight of the dead body was obtained, and during our stay with it we were repeatedly ordered, in a very peremptory manner, out of the house. We were only able, therefore, in these unfavourable circumstances, to determine that the descending colon, distended to double its natural diameter, ended by a large opening at the fundus of the bladder; that there was no trace of uterus or rectum in the pelvis; and that the two minute rounded masses in front and on one side of the exterior of the pelvis were merely structureless masses of fat.

(3.) In these instances, again,—and they are of more frequent occurrence than is usually suspected,—where what may be termed *genital malformation* in the ordinary sense exists, some of the most eminent physiologists and medical jurists have been at sea as regards the determination of the sex; while it has only been after death on not a few occasions that the real sex has been accurately determined.

In discussing the points arising for solution in cases of doubtful sex, we shall arrange these under two heads—first, the means of determining the true sex, where the sexual apparatus and sexual conformation are naturally, though imperfectly, developed; and, secondly, where these are malformed.

I.—Of the Natural Development of the Sex.

1. To begin with the *fœtal state*—according to Velpeau, the fœtus has no sex for the first fifty-five days, and it is not until between the second and third month that the genitals can be distinguished. In fact (Köbelt), there is a time in the earliest period of fœtal life when distinction betwixt the sexes is impossible from the temporary co-existence in each individual of the whole of the elements of the reproductive organs.—(*Vide* "Dict. de Méd. et de Chirurg.," vol. xvii., page 490.) Even between the fifth and seventh months of intra-uterine life—the earliest moment in legal medicine at which the inquiry into the sex of the fœtus can arise—mistakes may readily occur from the close resemblance at that period of the penis to the clitoris.

2. *At birth* at the usual time, the *non-descent of the testes* may give rise to doubts of the sex. The eighth month is the time usually assigned for the entrance of these bodies into the ring, and the ninth month for their arrival at the scrotum. Wrisberg, however, "upon an examination of seventy-seven infants at birth, found that only in sixty-seven had both testes reached the scrotum"; while "in seventeen, one or both were still in the canal"; "in eight, one testis, and in three both testes remained in the abdomen."—(Cummin, page 130.)

3. *After birth, and up to the establishment of puberty*, inspection of the genitals is the only means we possess for the discrimination of the sexes. If these are wanting after death, or where only the skeleton is discovered, we have no marks for our guidance on which we can (confidently) rely.

4. *After puberty*, the differences in the male and female figure, even independently of the genitals, are sufficiently marked in *the well-formed person*. There is in general more plumpness in the female form than in the male. The muscles are smaller and less strongly marked; the integuments are more abundant and softer; and the cellular substance is more largely provided with a supply of fat. The nails are smooth and semi-transparent; the hair of the head fine and long, and that on other parts of the body comparatively scanty.

The proportions also present some *remarkable contrasts*. Thus the female is usually not so tall as the male, and the whole figure makes an approach to *the oval*, not witnessed in the case of the masculine form. Other differences, equally distinguishable, come to be readily observed when we pass from the general conformation to the separate parts. The *upper part of the female body* is proportionately more developed than that of the male; half her length corresponding with the upper part of the symphysis pubis, and his striking the middle of this bone. *The lower limbs* of the female are thus proportionally shorter than those of the male; while *the trunk* is somewhat longer, enlarged at its fore and upper part by the prominent mammæ, and exhibits a furrow extending to the sacrum along the back, with a lateral depression on each side from the ribs to the nates, *peculiar to the sex*, especially as modified by the civilisation of the present day. *The chest* of the female has a larger antero-posterior and a smaller bicostal diameter than that of the male. *The upper and lower parts of the trunk*, respectively, in the two sexes have opposite characteristics; the lateral breadth of the chest, including the upper part of the arms, being less than that of the pelvis in the adult female, and rather exceeding it in the male. The comparative breadth of the pelvis gives a fuller contour to the tops of the thighs in the female than in

the opposite sex, and a greater obliquity to the thighs—an obliquity rectified in her by the enlargement of the inner condyle of the femur. Minor differences present themselves in the smaller and more delicate head and limbs, and lesser fulness of the lower jaw and projection of the larynx, in the female than in the male.—(Devergie, *Med.-Légale.*)

These particulars come not unfrequently to call for attention, as in those cases in which portions of bodies are found under suspicious circumstances; of which we meet with instances in medico-legal records both here and on the Continent, some of which will fall to be noticed by-and-by. Again, particular attention to the differences between *the male and female skelcton* comes to be demanded of the medical jurist, where the corpse has not been discovered until after the destruction of the soft parts.

We have already remarked that the examination of the bones alone can afford us *no indication* of the sex to which they had belonged *prior to the establishment of puberty*. The same observation applies *à fortiori* to the fœtus before birth. What follows, therefore, must be understood as applicable solely to *the adult skeleton.*

With regard to *the osseous structure* in general, it may be observed that there are some very striking peculiarities belonging to the bones of the adult female. They are less firm, and lighter than those of the male. The flat bones are thinner, the round bones more cellular or spongy, and the long bones more smooth and tapering; while those rough lines or ridges, which result from the repeated and more powerful action of the muscles in the male, are less perceptible. The processes are but feebly marked, the joints generally less bulky; and, in short, there is everywhere discoverable in the general bony structure marks of a more delicate conformation. But to come to particulars. The female skull is smaller, more oblong, and less flattened on the sides than is the male; the face is more oval, the frontal sinuses are less developed, the nasal apertures smaller, the jaws shorter and more elliptical, and the chin is less prominent.

The shape of the chest has been already noticed, but some minor points in addition are here available—such as the shorter and more convex sternum, the thinner and more flexible xyphoid cartilage, the more delicate and uniform ribs, with longer cartilages in the female than in the male.

I need but remind you of the striking differences in the shape and size of *the pelvis* in the two sexes: in the well-formed female the ossa ilii being more expanded, the sacrum more capacious from its greater convexity; the less acute angle formed by the union of the ascending rami of the pubes; the greater distance between the ossa ischia, and the larger subpubic foramina, than in the male; with the different measurements of the brim and outlet of the pelvis, with which you must be familiar.

The greater distance between the cotyloid cavities in the female gives rise to the peculiar position of the femurs and the proportionate size of their inner condyles already adverted to.

The chest, as best seen from behind, is narrower and less convex; while it is not so deep, leaving a greater distance between its lower border and the crest of the ilium in the female than in the male.—(Devergie.)

In cases calling for an examination of the skeleton, some familiarity with the bones of the *human subject* as *compared with those of the lower animals* is needed on the part of the medical jurist, as in some of the recorded cases these have been found intermingled; as in a late Parisian instance, in which there were parts both of a male and female, and some bones of oxen.—(*Ann. d'Hyg.*, tome xv.)

(*To be continued.*)

A LECTURE ON CANCER OF THE STOMACH.(a)

By Professor WILLIAM EBSTEIN, of Göttingen.

The stomach can claim the unenviable privilege of being more frequently attacked by cancer than any other internal organ. According to Marc d'Espine, 45 per cent., and according to Virchow, 34·9 per cent. of all cases of cancer are of gastric origin, while only 15 per cent. according to the former, and 18·5 per cent. according to the latter authority are uterine, and the rest of the cases are distributed among the other organs of the body. In Zürich the statistics of Professor Oscar Wyss show that cancer of the stomach is much more frequent than that of the uterus and mamma, in fact slightly more frequent than cancer of the two latter organs combined, and further, that, on an average of three years, the number of persons who died of cancer of the stomach was equal to 2 per cent. of the deaths from all causes. We must, therefore, admit not only that cancer of the stomach occupies the first rank in the cancerous affections of internal organs, but also that it holds an important place in the bills of mortality. It has been asserted that this disease varies in frequency in different parts of the world; and although August Hirsch, in his great work on the geographical distribution of diseases, expresses the opinion that the materials for a trustworthy statement on this subject are as yet far too scanty, there are reasons for believing that in some countries cancer of the stomach is extremely rare. Thus Griesinger, although he found chronic catarrh of the stomach with remarkable frequency in the post-mortem examinations which he made in Egypt, never met with a case of cancer of the stomach there. In the same way, Heinemann, during a six years' residence in Vera Cruz, only met with one case of it, although chronic catarrhs of the stomach were extremely common. These two observations are distinctly opposed to the view which is still current—namely, that there is a distinct connexion between the endemic prevalence of chronic gastric disturbance and the frequency of cancer of the stomach in the same district. Cancer of the stomach spares no class of society, and makes no distinction between the rich and poor, and it attacks country people and townspeople indiscriminately. Whether more men or more women suffer from it is a question which has been much discussed, but we want more data before we can form a decided opinion on this subject. On the other hand, we can be much more positive in our statements as to the age at which cancer of the stomach most usually appears. In childhood the disease is practically unknown; and a case reported by Kaulich, in which the stomach and almost all the abdominal organs of a child a year and a half old were affected with colloid cancer, must be considered as unique. Even up to the thirtieth year the disease is very rare, and I have only met with one case in a person below twenty—that of a girl, aged nineteen, reported by Dittrich. For practical purposes it is sufficient to know that cancer of the stomach is peculiarly a disease of middle and advanced life, in the same way as is perforating ulcer of the stomach, although in a far more exclusive manner, for while about a quarter of the cases of gastric cancer and three-quarters of the cases of gastric ulcer occur before fifty, three-quarters of the cases of cancer and one-quarter of those of ulcer occur after the fiftieth year.

We are as much in the dark about the true origin of gastric cancer as of that of cancer in general. Virchow has pointed out the disposition which tumours have to develope at those spots which are most exposed to injury or irritation, whether external or internal; but we have already shown, on the authority of Griesinger and Heinemann, that chronic irritation of the stomach may occur on an extensive scale without leading to cancerous affections of the stomach. Nor has any one as yet been able to prove the immediate dependence of a cancer of the stomach on a chronic catarrh of that organ. Blows and other injuries have also been mentioned as exciting causes; and a patient whom we have lately had under our care dated the commencement of his illness from a fall on his right side, in which a rib was broken. But, while I believe that we ought not to lay too great stress on such statements as patients make, I still think that we ought not to undervalue them too much, since injuries in which the stomach is involved may well become occasional causes of its cancerous degeneration.

Grief, mental distress, and other depressing influences have been assigned as causes of cancer of the stomach—just as of cancer in other organs; but it is difficult to prove that there is any basis for such assertions. Heredity has also been assigned an important place in the etiology of cancer of the stomach; and a large number of cases in proof of this are to be found in the literature of the subject. The one which is most commonly quoted is that of Napoleon I., who suffered from it, and whose father and sister also died of the same disease. Still, all this evidence is as yet too scanty for us to draw any general conclusions from it.

According to our present experience we cannot dispense with the idea of an individual disposition to cancer of the stomach, just as to cancer of other organs; while at the same

(a) This is an abstract of No. 87 in *Volkmann's Sammlung Klinischer Vorträge.*

time we admit that the causes already discussed, and perhaps others as well, must be regarded as predisposing to the development of cancerous affections. It is true that we are ignorant of what this individual disposition consists; but for my own part I am decidedly inclined to the view already propounded by Matthew Baillie—namely, that the individual predisposition does not so much affect the whole individual as the particular organ. If we turn now to the anatomical seat of the disease in the stomach, we find a universal agreement among authorities that cancer of the stomach developes most frequently at that spot where its mechanical activity, as proved by the thickness of its muscular coat, is the greatest—namely, at the pylorus. Out of 200 cases of cancer of the stomach which I have collected from various sources, 123 involved the pylorus and the pyloric region. Cancer of the pylorus only very rarely extends to the duodenum.

The other seventy-seven cases were distributed over the other parts of the stomach. I will only state here that of these the lesser curvature and the anterior surface of the wall of the stomach most often suffered. The cardiac opening was affected seven or eight times less frequently than the pylorus, while cancer of the fundus of the stomach was the rarest of all.

Gastric cancer, it is most important to remember, is almost invariably *primary*. I only know of two undoubted cases of its occurrence as a secondary deposit. One of these will be found in the report of the Vienna Hospital for 1855; the other is related by Cohnheim in *Virchow's Archiv*, Band 38. In both cases the primary cancer was of mammary origin. As a rule, primary cancer of the stomach starts from a single focus, but in a few cases the disease developes at more than one spot in the same stomach. [Professor Ebstein here enters at considerable length into the naked-eye characters of the various forms of cancer affecting the stomach, as well as into the microscopical appearances presented by each. As, however, we are here more specially concerned with the clinical aspect of the subject of cancer of the stomach, we omit this part of his lecture with the exception of the concluding portion, which deals with the views of Waldeyer on the development of the new growth in the walls of the stomach.]

The old view which made the cancer of the stomach develope in its entirety out of the connective tissue of the submucous layer, or (especially in the softer forms) out of that of the mucous membrane, has been severely shaken of late, especially by Waldeyer.(b) He believes that in the stomach the cancer developes from the mucous membrane, and that the cells which fill the meshes of the growth are derived from the cells which line the gastric glands, especially from the so-called "peptic" glands and the cells of the pyloric glands. The connective-tissue framework of the cancer developes out of the normal connective tissue of the organ, and the harder the form of cancer the more abundantly is it developed, and it then presents itself under a variety of aspects. In the neighbourhood of the collections of epithelial cells, abundance of small round cells are found, just as in granulation tissue.

In addition, one frequently sees a striated connective tissue containing numerous spindle-shaped corpuscles. Waldeyer's examination of very thin sections from those parts of the growth in which the earliest stages of its development could be easily studied, led him to the conviction that it is always a small gland-trunk with from ten to twenty or even fewer follicular branches (*einen Kleinen Drüsenstamm mit etwa* 10-20 *Säuchen*) which forms the starting-point of the cancer. As soon as these, in their abnormal growth, have penetrated beyond the muscular layer of the mucous membrane, they begin to proliferate most vigorously in the vascular submucous tissues, so that a larger nodule is quickly formed, which is only connected with the glandular layer at one very limited spot. The connective tissue does not remain passive during this process, but a growth of small cells with an abundant development of new vessels commences at an early period between the follicles of the glands. Later on, the masses of germinating epithelial cells break through the tunicæ propriæ of their gland-sheaths, and they may then continue to spread unchecked, and without following any special type. Such in the broadest outline is Waldeyer's view, which since its publication has obtained many adherents.

It is impossible to leave the pathological anatomy of gastric cancer without speaking of the ways in which the growth is apt to extend from the stomach to surrounding organs. These are three in number—first, through the branches of the vena porta, chiefly in the direction of the liver; secondly, through the lymphatic vessels; and, thirdly, by direct extension of the cancer to the neighbouring organs, which are connected with the stomach by inflammatory adhesions. The proof of the propagation to the liver through the vena porta depends partly on the fact that large masses of cancer and epithelial cancer-cells have been met with in the bloodvessels, and partly on the extreme frequency with which cancer of the stomach is associated with cancer of the liver. According to the statistics of a number of authorities, it is an undoubted fact that in at least one-third of all the cases of secondary cancer of the liver the primary growth is in the stomach. With regard to the lymphatics, it is scarcely possible to regard the narrow columns of epithelial cells, which are observed in thin sections of the thickened wall of the stomach, and which extend almost through the whole thickness of the muscular coat, as anything else but lymphatic spaces filled with cancer-cells. In some cases, too, it is possible to follow the infarcted lymphatics on to the peritoneum, as well as on to both the under and upper surfaces of the diaphragm. It is a most important point in the propagation of the cancer, not only through the medium of the bloodvessels, but also through that of the lymphatics, that the epithelial cells are able to make their way, so to speak, against the stream of the liquids which the vessels contain.

In this way the lymphatic glands in distant parts of the body—for instance, the inguinal glands—may become affected. Direct extension of the cancer most frequently takes place to the intestine, especially the transverse colon, and next in order to the great omentum, the liver, the pancreas, and the abdominal wall, after indirect or direct adhesions have taken place between these parts and the stomach. Briefly to recapitulate the frequency with which different organs are affected with secondary deposits owing to primary cancer in the stomach, we may say that the neighbouring lymphatic glands and the liver are nearly equally often affected, and that cancer of the peritoneum is a little less often observed. The great omentum is far more often involved than the rest of the mesentery. Cancerous nodules are not unfrequently found in the pancreas. Secondary deposit is rarer in the intestine, and most frequently involves the transverse colon, or those loops of small intestine which are adherent to the cancerous stomach. The retro-peritoneal as well as the distant lymphatic glands are more rarely affected than the intestine, and still more rarely is secondary cancer found in the uterus, lungs, pleura, brain, etc.

It is not unusual, in post-mortem examinations, to find secondary deposits in several of the above-mentioned localities. Turning now to the morbid symptoms to which cancer of the stomach gives rise, we shall find it, I think, most convenient to divide them into *two* groups, and to treat first of those which depend on our having to do with the *gastric* affection; and, secondly, of those which depend on the disease being *cancerous* in its nature. It is true that we cannot draw a hard and fast line between the two groups, since some of the symptoms—such as pain and nutritive disturbance—are, to a certain extent, common to both. The purely gastric disturbances in cancer of the stomach vary excessively, not only in different cases, but also in the same patient, at different periods of the disease; and, more than this, there are cases of gastric cancer in which the functions of the stomach remain completely unimpaired. In this way in old people the nature of the malady may only be detected on the post-mortem table. The multiformity and the different degrees of intensity of the gastric symptoms depend upon a number of circumstances, of which the following are the most essential. The localisation of the cancer at the apertures of the organ, and, above all, at the pylorus, causes very extensive contractions of these parts. Considerable stenosis of the pylorus will thus naturally interfere most materially with the forward movement of the contents of the stomach, and so give rise, first to their stagnation, and next to a marked enlargement of the organ. It follows, therefore, that gastroectasy becomes one of the marked symptoms of pyloric cancer, and the size of the organ may become enormously increased. Since, however, the cicatrices of ulcers in the neighbourhood of the pylorus, as well as other pathological changes besides cancer, may also cause stenosis with gastric dilatation, we must not immediately conclude from this one symptom that we have to do with cancer of the stomach. The limits of the dilated organ may be accurately determined, provided it contains but little solid food, by making the patient drink some effervescing mixture, or some mineral water rich in carbonic acid gas. The gas distends the stomach

(b) *Virchow's Archiv*, 41, p. 485, and 55, p. 118.

so that it gives on percussion a tympanitic note, which is deeper than over any other part of the intestinal tract. Very extensive dilatation of the stomach is generally, however, preceded by other symptoms which attract the attention of the observer. The patients complain of a feeling of fulness and tension in the epigastric region, which is often intensely unpleasant and painful, and which is relieved by the eructation of rancid-tasting gas. After a while, quantities of sour matter are vomited, generally at the beginning of the illness, several hours after a meal. The longer the disease lasts, the greater the dilatation of the stomach becomes; and at the same time the intervals between each fit of vomiting become longer, but the quantity vomited each time is much greater. The vomited matters in these cases are generally of the consistence of thick soup. They have a most offensive taste, are very sour, and possess almost caustic properties. They contain acetic and butyric acid, products of decomposition of the fat and carbohydrates in the food. These develope under the combined influence of the air which is swallowed, and of the organisms —the sarcina ventriculi and the torula cerevisiæ—which are always present in the stomach in such cases. The natural consequences of the alterations which originate in the stenosis of the pylorus, and of which the dilatation of the stomach is the most important, will be, first, that the assimilation of food becomes much diminished, and secondly, that the products of the decomposition of the food, which lies stagnating in the stomach, irritate its whole mucous membrane, and so give rise to chronic catarrhs.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

CONTRIBUTION TO ANTISEPTIC SURGERY.

BEING NOTES OF CASES TREATED IN THE GLASGOW ROYAL INFIRMARY

By JAMES DUNLOP, M.D.,

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[Reported by Mr. John Kendall, Surgeon and Clinical Assistant.]

(*Continued from page* 142.)

C.—Case of Double Amputation in the Leg—Death from Pyæmia on the Seventy-fourth Day.

B. B., aged sixty years, a labourer, was admitted into Ward 24, on April 27, with a severe smash of both lower limbs. While at work that morning on the railway he fell off a loaded waggon, and both wheels passed over both limbs immediately above the ankle-joint, grinding the bones of the legs into numerous small pieces. The lower fragments of the mangled limbs were attached to the body by narrow strips of skin. Shortly after admission, amputation was performed in both legs below the knee, antero-posterior mixed flaps being formed. The shock of the operation was well recovered from, and the healing process progressed most satisfactorily. The flaps on left leg united very readily and with very little discharge; those on the right did not do so well—a small piece of the anterior flap sloughed, exposing beneath a small triangular surface of the tibia. On May 25, there was an exfoliation of a thin scale of bone about the size of the finger-nail from the right tibia. On June 10, the left stump was completely cicatrised; and on the 20th, on the right there was a healthy granulating surface about the size of a shilling-piece, which was dressed with boracic lint. Even this surface was rapidly closing, and, had it been anywhere else on the stump than over the end of the tibia, the process of cicatrisation would have been complete. Every day for a week before this date the patient had been wheeled out into the square for an airing, and he was on the eve of having himself measured for artificial limbs preparatory to his leaving the hospital for the convalescent home, when, on the afternoon of June 22, he ate a quantity of currant-loaf bread brought him by his son, which, immediately on its being swallowed, pained him, and otherwise quickly disturbed his stomach. On the 24th he had a severe rigor, followed by profuse sweating, accompanied by a rapid pulse, loss of appetite, and vomiting. Under date 29th there is an entry to the following effect:—Patient has not taken much food for several days. Has an occasional rigor of some duration, and he is sweating profusely. Is very weak; complains of pain in the epigastrium; and there is a yellow bilious tinge in his eyes. Over the right knee-joint there are redness and swelling, and on the back of left hand and in left wrist-joint there are both swelling and tenderness. There is evidently pus collecting in both joints, and that very rapidly. On the three following days the stumps were carefully examined in order to ascertain what changes were taking place in them. The left stump, which had been whole for several weeks, became shrivelled and small, sharing in the rapid emaciation which was going on in the body. The right stump was also shrivelled, and there was a puckering of the cicatrix, but the small granulating surface appeared unchanged, the quantity of the discharge on the dry lint being about the same as before. There was no evidence whatever of putrefaction in the wound. On July 3 the patient was taken home by his friends, and there he died in the course of a few days.

Regarding this case, it may be remarked that there was no doubt on the question of diagnosis. The patient died of acute pyæmia, and of no other disease. How the pyæmia arose was a question more difficult to answer. I feel quite satisfied, however, that it did not arise from anything in the wound itself, but must have had its origin in some unfavourable hygienic condition of the ward not at present recognised or understood.

D.—Amputation of Leg for Disease—Recovery.

J. M. C., aged forty-nine, was admitted on May 19 with extensive disease of ankle-joint and bones of right leg, which had existed for about three years. On May 24, amputation was performed high up in the leg, and it was observed that the arteries were atheromatous, and did not bear the antiseptic catgut ligatures well. About fourteen hours after the operation, and during the night, secondary hæmorrhage set in, and before the flaps were re-opened and the bleeding vessels found and ligatured, there had been considerable loss of blood. For two days the stump was only covered with a light dressing, as there was constant fear of recurring hæmorrhage. On the 26th, antiseptic dressing was resumed; and on June 7 there was a large abscess over the left hip opened, and a large quantity of pus evacuated. Several small abscesses formed around the knee-joint and connected with the stump, and in addition a small portion of the anterior flap resting on the divided end of the tibia, sloughed, exposing the bone. Under date July 6 there is an entry that the stump was looking well, that the patient's health had greatly improved, that the surface over the end of the bone was covered by granulations, and that only a small piece of bone, less in size and thickness than a finger-nail, had been exfoliated. On August 1 the stump was perfectly solid and cicatrised, and he was dismissed well.

E.—Amputations at Ankle-Joint

were four in number; of these, three were cases of disease, and one of injury. In all *the results were satisfactory.*

Case 1.—E. M., aged twenty, admitted into Ward 23 with disease of the bones of the right foot of eight years' standing. The entire tarsus and the joint itself were very extensively diseased, and there were numerous sinuses all round the joint, especially in front and at the sides. On the 16th, Syme's operation was performed in the usual way, and in consequence of the lower end of the tibia and fibula having been very much implicated in the disease, a considerable slice of these bones was removed with the saw. During the treatment, quinine and cod-liver oil were administered, and although a considerable quantity of pus was from time to time discharged, yet the patient's health improved, and she was dismissed on June 29 with a sound and cicatrised stump.

Case 2.—M. C., aged twenty-three years, admitted April 18, with extensive disease of the left ankle-joint. On the 24th, Syme's amputation was performed, and throughout the entire treatment there was nothing worthy of note, except that a small abscess formed in the leg, which was opened and dressed antiseptically, and, as in the preceding case, there was a considerable quantity of pus discharged from time to time, which was not, however, always sweet. Apparently from some inattention to details, germs were admitted, and the discharge for several days became offensive; but by-and-by it became sweet again, and ultimately the process of cicatrisation was complete, and on June 29 she was dismissed with a sound stump upon which she could bear considerable pressure.

Case 3.—J. F., aged sixteen years, was admitted on August 16 into Ward 23, with extensive disease of the tarsus. Syme's amputation was performed under the spray, and in four weeks the stump was perfectly whole.

Case 4.—J. F., aged sixteen years, a railway boy, was admitted on February 4. One wheel of a waggon heavily laden passed over the front of left foot, smashing completely the foot, leaving, however, the heel and integument over the ankle-joint untouched. A few hours after the injury had been inflicted, Syme's amputation was performed. The case progressed favourably, the discharge not being great, and the dressings required to be changed once every two or three days. On March 20, when the stump was nearly whole, an abscess formed in the fibular side of the leg, about three inches and a half above the line of union of the flaps. This was opened under the spray, and dressed carefully every second or third day. By April 10 the cure was complete, and on the 28th he was dismissed well, with a solid stump upon which he could bear considerable pressure without the slightest tenderness.

F.—Partial Amputations in the Foot

were five in number, and all on account of injury. In one case all the toes were removed, with a portion of their corresponding metatarsal bones. In two the big toes only were removed. In one there were three toes removed, with a portion of their corresponding metatarsal bones. Without burdening the history with further details, it may be said that they were all successful. In one case, however, erysipelas attacked the foot, and extended as high up as the knee.

G.—Amputations in Upper Extremity: in Arm.

Case 1.—P. C., aged fifteen, was admitted into Ward 23, on April 22, with a smashed arm, the entire hand, forearm, and elbow having been crushed by the rollers of a printing machine. Shortly after admission, amputation was performed, the flaps being obtained by the circular method, and the bone divided at its middle. On May 29 the boy was dismissed well, union having taken place without any pus.

Case 2.—W. S., aged thirty, a railway porter, admitted August 28 with a severe smash of left arm. While coupling waggons he had been caught between two buffers, and the humerus was fractured into several pieces. The elbow-joint was quite destroyed, and there was much tearing of the muscles and integument nearly as high up as the shoulder. Immediately after the accident he was seen by a surgeon, who, without removing the clothes, applied Esmarch's elastic band with the Whittaker clamp high up upon the arm; and, although nearly two hours elapsed before the patient reached the hospital, it was found that very little blood had been lost, and the pressure of the band did not produce any marked uneasiness. Amputation was performed, and the bone divided high up, not far from the joint. It was treated antiseptically with great care and attention to minute details. Union of the greater part of the wound took place by first intention. In three weeks the stump was whole; there had been no constitutional disturbance whatever, and very little suppuration.

Case 3.—J. M. N., aged thirty-four, a baker, admitted September 22. His left arm had been caught in machinery, and a double compound comminuted fracture of the arm, with laceration of integument and muscles, had been inflicted. Amputation was performed in the upper third of the humerus. In twelve days the sutures were all removed, and within four weeks he was dismissed well. The only suppuration which did take place was from the drainage openings.

Amputation in the Arm (Unsuccessful) for Injury.

Case 1.—M. L., labourer, aged twenty-two, admitted into Ward 23 on November 13, 1874, with his left thumb blown off by an explosion of gun-cotton. He was also burned about the face and eyes. Shortly after admission, a few broken fragments of bone were extracted from the wound. There was no opening into the wrist-joint, and the bones of the hand were otherwise uninjured. For ten days the dressings were carefully applied, and from the wound there was not much discharge. The case progressed favourably till November 29, when, after some exposure to cold, he was seized with a shivering fit, and on the following day an erysipelatous blush presented itself on the right foot. The erysipelas gradually spread all over the body, and was accompanied by some delirium. He was removed from Ward 23 to one downstairs, immediately below. (In the small rooms in the basement storey, which are below Ward 23, cases of erysipelas or pyæmia occurring in any of the other parts of the hospital are treated. Whether the proximity of these rooms has had any special influence upon the hygienic condition of the ward above, it is difficult to say. It is hoped, however, that when the new contemplated additions are made to the surgical hospital, accommodation will be made for these dangerous cases at some distance from the accident wards.) While the patient was in the erysipelas ward, suppuration ensued in the hand, and by-and-by pus had burrowed along the sheaths of the tendons. On December 10, both wrist- and elbow-joints were full of pus. Free incisions were made from time to time as the necessity arose, and drainage-tubes inserted, and much time spent in syringing out the wounds, but all without any special benefit. On December 19, amputation in the arm was performed, the flaps being formed out of apparently sound tissue. Up to January 1 the case progressed favourably, and there was every probability that union would readily take place, as the discharge was not copious, and the patient had regained his appetite and was in good spirits. On that day, however, he had a rigor which lasted an hour and a half, and which was followed by profuse perspiration. This was the beginning of pyæmia, and on January 8 he died with collections of pus in both lungs and liver. The stump went through the usual stage of shrivelling, and before death there ceased to be any discharge of pus from the flaps.

Amputation in Arm for Injury—Unsuccessful—Pyæmia.

Case 2.—H. M. K., aged twenty-eight, admitted into Ward 23, on February 20, with a smash of the right arm, one of the wheels of a locomotive engine having passed over the forearm and elbow, crushing the bones and lacerating the soft structures. He was seen by a surgeon shortly after the occurrence of the accident, and, as there was then considerable bleeding, the elastic band of Esmarch was applied over the jacket and above the lacerated point. He was afterwards conveyed to the Infirmary, and it was found that not only had there been no further bleeding from the wounds, but the parts below were not engorged with blood, and the patient did not experience any special inconvenience from the pressure of the elastic ligature during the two hours it had been applied before the arm was removed by amputation. The operation performed was one by circular flaps, the bone being sawn through at the junction of the middle with the upper third. The case progressed most favourably in every respect till March 24, and on that day the stump was entirely whole except at the outer angle where the drainage-tube had been; at that point there was a small portion of the flap yet to cicatrise. The discharge had been so small in quantity that the dressings had only required to be changed twice in the week. On the early morning of the 24th, without any known cause,—certainly without there being change in the discharges from the stump,—he had a severe rigor, followed by profuse sweating, and all the other familiar symptoms of blood-poisoning. On the following day he was removed to his home, and six days thereafter he died, with a large collection of pus in the right pleural cavity. As in the previous case, there was rapid wasting of the tissues which was shared in by the stump.

H.—Amputations in the Forearm.

Successful Cases.

Case 1.—N. T., an engine-fitter, aged fourteen, was admitted into Ward 23, on November 13, 1874, with a smashed hand and wrist. He had been oiling a large toothed and pinion wheel when his hand was drawn in. On the same day amputation was performed by Teale's method, the bones being divided in the upper part of middle third. There was some suppuration throughout the treatment, but it continued quite sweet, and he was dismissed with a soundly cicatrised stump on January 25.

Case 2.—R. M. A., labourer, aged forty-five, admitted into Ward 23, on March 13, with disease of the right hand and wrist of nine months' duration. It was supposed that the disease had originated in a sprain received a year before the commencement of the disease. On April 5, amputation was performed in the upper third of the forearm, and in four weeks the flaps were perfectly united, and there had been only a small quantity of pus discharged.

Case 3.—P. C., aged fourteen, admitted April 22, with hand and forearm smashed and lacerated between rollers. Amputation was performed near elbow. He was dismissed well on May 29, with the stump firmly united. The discharge had been slight, and there had been no constitutional disturbance whatever.

Case 4.—A. B., aged twenty-three years, a porter, was admitted into Ward 24, on September 17, with a smashed hand and opened wrist-joint. His hand had been caught between the teeth of a wool-teaser, and very much lacerated. Amputation was performed in the lower third of the forearm. In sixteen days the flaps were firmly united except at the small opening

where the drainage-tube had been introduced, and in four weeks he was dismissed well. There had been almost no pus, and certainly there was no constitutional disturbance whatever.

Unsuccessful Cases.—Two Deaths from Pyæmia and Two from Shock.

Case 1.—W. R., aged forty-nine years, was admitted into Ward 15, on January 12, with extensive suppuration in the hand and forearm, following an injury to the index-finger received three weeks before admission. The wrist-joint having become perfectly disorganised, amputation in the forearm was recommended; but, as the patient declined to give his consent for some time, the operation was not performed till January 29. On that day amputation was performed—the flaps circular, and the bones sawn through at the lower border of the upper third of the forearm. The patient did well up to February 6. On that day he had a rigor of a severe kind, and, instead of removing him to the pyæmia ward downstairs below Ward 23, he was conveyed home, where he died in six days thereafter with all the symptoms of a collection of pus in the liver.

Case 2.—D. B., aged thirty-eight. This patient was admitted on June 4 into Ward 15, with phlegmonous erysipelas of the hand and forearm. About ten days before admission a rusty nail had punctured his thumb, and soon thereafter pus formed in the palm of the hand, and ultimately in the forearm as well. The wrist-joint was full of pus, and the bones of the carpus were felt to be loose. Free incisions were made into the wrist-joint and palm of hand, also in the forearm, and fomentations were afterwards applied. For several days he had diarrhœa, which considerably reduced him. On June 16 he gave his consent to amputation, which had been recommended in consultation about a week before, and on that day amputation was performed high up in the forearm. On the 21st he had a severe rigor, which lasted twenty minutes, and this was followed by profuse perspiration; and in the evening he had a second of longer duration. He was that day removed to the pyæmia ward, below Ward 23, where he died on June 25. This case was an unfavourable one for operation from the very beginning, and though the dressings were carefully applied, the discharges were offensive and putrid.

Cases 3 *and* 4.—P. B. and R. L., two little boys about ten years old, with their forearms very much lacerated—one by pinion-toothed wheels, the other by a railway-waggon wheel. Amputation was performed in the middle of the forearm in each, but they never rallied from the shock of the operation—they cannot therefore be accepted as any evidence calculated to throw light on the question of the value of antiseptic treatment.

I.—Partial Operations in the Hand.

Under this heading there were noted twenty-three operations. They were all treated antiseptically, and with satisfactory results.

(*To be continued.*)

MASKED MALARIOUS FEVER.

By JOHN SULLIVAN, M.D., M.R.C.P. Lond.

In tropical regions, where marsh fever is endemic, these masked fevers are of frequent occurrence. They are but too well calculated to deceive the medical attendant, so variable are the symptoms, so changeable, and so capricious: sometimes accompanied with fever, at others fever may be altogether absent. They nevertheless derive their origin from a common malarious cause, which can be traced to three intimately connected sources:—First, their intermission; second, the decided influence of quinine in all masked fevers; and third, the frequent transformation of an access of masked fever into one of an active and violent nature. It is in the very ease and rapidity of this change that the great danger from masked fever consists; indeed, this may be followed by attacks of pernicious fever, and, if repeated and not traced to its original source, may lead to death. A body under the influence of malaria in a masked and latent form may be likened to a charged electric battery, which communicates a shock to whatever body it may come in contact with.

The marsh poison introduced into the system may lie in wait, in a masked form, for a longer or shorter period; and although it may not manifest its presence as a frank intermittent, it will excite, complicate, and aggravate any disease to which the body, from peculiar temperament—whether nervous or sanguineous—may be predisposed. Hence we find in masked fever attacks of hysteria and neuralgia in the nervous, of hepatitis and phlegmasia in the sanguineous.

In districts where marsh fever is endemic, diseases may declare themselves simple, uncomplicated, and independent of malaria; but when they show a tendency to periodicity, or appear to yield to the administration of quinine, or pass into intermittence, then we can no longer entertain a doubt respecting their malarious origin.

These masked fevers may affect every type—quotidian, tertian, quartan, etc.,—and sometimes return periodically, after a lapse of time far greater than that of intermittent fever (after an interval of three weeks, sometimes of a month); and when they do return they are irregular. The attacks may come on in the morning, the evening, or at night. Now, whenever masked fever takes on the tertian or quartan type, we must apprehend great danger, and guard against the possibility of an attack of pernicious fever.

Sometimes some slight symptom indicative of its malarious origin will develope itself in the course of the fever, as headache, intolerance of light, shivering, a sense of cold and alternating heat and cold, and perspiration; but it happens more frequently that no such indications present themselves. The diagnosis becomes obscure. Now, quinine is the touchstone in this case,—it reveals the true nature of the disease; and in our uncertainty we had better take the safe side, from the fear of pernicious fever—that is, an attack of intermittent, accompanied by some prominent symptom dangerous to life.

This masked fever, however varicoloured may be its form, manifests itself usually by some functional derangement—by a lesion in some organ or another, some hæmorrhage, or inflammation in some part. It will sometimes take the form of neuralgia, at others of a neurosis: a supra-orbital or infra-orbital neuralgia, a dental neuralgia, are some of the many forms in which masked fever is often disguised. Should these pains occur in the night-time, they must not be confounded with pains of a syphilitic origin.

There is not a part of the human body in which a pain or nerve-sensation may not be felt with more or less of periodicity, which can only be combated by the use of quinine. In other cases we meet with wandering obscure pains, darting pains in the head, which will only yield to quinine. In children you will sometimes find the voice become hoarse, or nearly lost, with a cough which comes on periodically. These attacks may often simulate and be mistaken for whooping-cough.

Hiccough, coming on at certain hours, I have often noticed as a manifestation of masked fever.

This fever, in infants, often assumes a convulsive form. In tropical climates convulsions in children are very frequent. They may be owing to worms—so common in the Antilles—to teething, or to some malarious influence. Here we must be careful in making a proper diagnosis, as a mistake might be fatal to the life of the child,—by administering quinine improperly, or by not giving it when required.

In women this fever may exist under the mask of hysteria. I have seen a case where tertian ague was ushered in by violent fits of hysteria. The administration of quinine in high doses modified a third attack, and thus I was able to detect its malarious origin. Or this fever may at times be manifested by some phlegmasia, or some periodical hæmorrhage, or by a lesion of some important organ.

Not many months ago, I attended a sugar-boiler in Cuba, who had been confined to his bed fourteen days when I first saw him; he complained of slight swelling and intense pain on the instep of the right foot, extending down to the heel, and along half of the sole of the foot; he had already applied leeches, fomentations, anodyne liniments, etc., but to no purpose. Having observed that the pain became greatly aggravated at a particular hour, and suspecting its malarious origin, I administered quinine with good effect: all pain and swelling disappeared.

The eye may be attacked with violent inflammation and ecchymosis. Now, if we observe that the symptoms become greatly aggravated at certain periods, and in a marshy district, we shall be enabled to arrive at a conclusion that the case is one of intermittent ophthalmia, and can only be cured by the antiperiodic.

Blood in the urine (so frequent in the Brazils) will often betray a masked malarious fever.

If we find that its return is periodical, we must employ the febrifuges; or, in plain language, if we find that a tendency to decomposition of the blood is manifested by hæmaturia, we

must make use of an antiseptic capable of counteracting that tendency.

Cases sometimes do occur where the diagnosis is very obscure. We cannot well decide whether the periodical character of the attacks discloses a masked fever or a confirmed disease to which intermittence gives a deceitful colour.

About two years ago, a Spanish physician related to me the case of a man, aged fifty, who had been troubled with periodical fits of hæmoptysis. He died from phthisis. This man had no constitutional or hereditary tendency to consumption; he had resided many years in a malarious district. It is worthy of note that these attacks of hæmoptysis always returned periodically at a particular hour in the evening.

I have reason to suspect that the paludinous influence produced congestion and some pulmonary lesion; that hæmorrhage was the consequence; and that this repeated effusion, not corrected, seriously damaged the substance of the lung, and laid the foundation of the disease from which he died. Unfortunately, the antidote quinine had never been given to this man.

I shall select from a great many cases two more, as illustrating the extraordinary and fantastic capriciousness with which masked fever sometimes reveals its existence in tropical regions where marsh malaria is endemic.

A lady, recently confined, complained to me of a slight swelling all over the bosom, with tumefaction of the breast; to this followed a slight febrile attack, which made me dread the formation of an abscess. In the afternoon a cold shivering came on, with symptoms of convulsions. Under the influence of a large dose of quinine, a simple regular attack of intermittent appeared on the following day, the swelling of the breast disappeared, and she continued to suckle her child.

A year has not elapsed since I was consulted by an American lady in a case of severe pruritus of the vulva of a most distressing character, accompanied with a loss of appetite, great anxiety, feeling of terror as night approached. The constitutional symptoms struck me as being more severe than could be expected from a local affection of that nature. I had tried without effect every known remedy, but in vain. As the case was marked by intermittence, I gave quinine, and, to my great surprise, both pain and itching disappeared in two days.

Although masked fever is described as varied and capricious in its manifestations, we must bear in mind that the nature and essential attributes of malaria never vary. The poison, when introduced into the blood, powerfully depresses the nervous system, and leads to congestion of internal organs.

The most complete expression of its effects is to be seen in the cold stage of intermittent, and, when still more intensified, in the algidity of pernicious fever. Consequently, the variety observed in the symptom peculiar to masked fever must proceed from the temperament of the recipient of such poison.

Is it to be wondered at, that when an element of a nature so subtle and pernicious as malaria should insinuate itself into a system so delicate and so admirably constructed, so complex and yet so simple in the harmony of all its component parts, as the system of the human body, great mischief and disorder should accrue throughout all the parts of which it is composed; that great alternations of excitement and depression should arise from the presence of a poison in a masked, latent form, always tending towards decomposition and decay? The mode of the manifestations of its presence must, therefore, depend upon the temperament, sex, and constitution of the patient subject to its influence.

Therefore, when we say that the symptoms of masked fever are varied and capricious, we mean that it is as varied in its symptoms as are the subjects to its influence varied in constitution and susceptibility.

Latent malaria always detects the weak spot in her victims, and developes the irritability of that spot, but with a masked periodicity and intermittence.

This masked fever requires a larger dose of quinine than does simple intermittent,—a dose such as may be administered in pernicious fevers.

In hot climates, where malaria is endemic, we may take it for granted that any symptom, with or without fever, characterised by intermittence, ought always to excite the careful suspicion of the medical attendant, who must always remember that slight febrile attacks are often followed by attacks of a pernicious nature, and that pernicious fever may rapidly, and when least expected, usurp the place of masked fever.

Havana.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

CASE OF ABSCESS IN PELVIS, WITH PERITONITIS.

(Under the care of Dr. GREEN.)

[For the notes of the following case we are indebted to Mr. Laurence Potts, Assistant House-Physician.]

E. R., aged twenty-five, was admitted as an in-patient on January 19.

On admission, patient complained of extreme exhaustion, persistent vomiting, diarrhœa, and pain over the whole of the abdomen. The pain was more acute over the right side than over the left, and it was greatly aggravated on pressure. The abdomen was much enlarged. The patient stated that she had not been well since a week before Christmas, when she suffered from pains over body and limbs. On January 4 she became suddenly worse, and complained of severe pain over the abdomen, which was worse on the right side. On the same day she commenced vomiting, and vomited four or five times a day for three or four days, when it ceased. The pain over abdomen lasted two days, when it suddenly left her; the bowels during this time were well open, but not relaxed. She felt very weak during the illness, and remained in bed. On January 15 the pain over the abdomen again came on suddenly, being worse on the right side than on the left, and aggravated on pressure. Three days previous to the pain coming on she was seized with persistent sickness and loss of appetite. She was very thirsty. The pain was increased on taking anything to drink. States that her abdomen has been swollen for the last four months. Patient says she menstruated daily for some months, but four months ago the catamenia suddenly stopped. She has been an in-patient of Charing-cross Hospital on two previous occasions—once for acute pneumonia of the left lung and part of the base of the right lung, and on the second occasion for mitral regurgitation and congestion of lungs.

January 20.—The symptoms are much the same as yesterday, with the exception that she has diarrhœa, from which she had suffered for three days previous to her admission. She vomited thirteen times during the night and morning; the vomited matter was of an olive-green colour. Temperature 101°; pulse 120; respirations 24 per minute. Urine contained about one-eighth albumen and an abundant sediment, which, on microscopical examination, was found to be epithelium-cells, with some spindle-shaped cells having a nucleus and very much resembling sarcoma-cells. The spleen was found to be very much enlarged, extending from two inches below the ribs upwards to within about four inches of the axilla. Apex-beat of heart is close to the left nipple.

21st.—Temperature 102°; the sickness and pain continue. Has had a convulsion, which lasted from three to five minutes. The convulsion was general, there being twitchings of the face, stretching of the arms, and clenching of the hands, together with perfect insensibility.

22nd.—General condition unaltered. Has had three more convulsions similar in character to that of yesterday.

23rd.—Pulse weaker; temperature 99°. Is very much exhausted from the vomiting.

24th.—Has had three convulsive attacks since yesterday. Death took place at 8 a.m.

An autopsy was made on January 25. On opening the abdomen, it was apparent that the woman had had peritonitis; the intestines were shiny and sticky, also matted together with numerous adhesions. There was a quantity of turbid matter in the abdomen. The evidences of inflammation were more marked on the right side than on the left. The mitral orifice of the heart was enlarged; the mitral valves were covered with large vegetations. There was a large patch of ulceration above the valves within the right auricle, due to friction; vegetations were hanging from one of the mitral valves. The ulceration was covered with vegetation. Within the aorta there were some large fibrinous clots. The lungs were adherent to the cost æat the base. The left lung was also adherent at the apex. Recent pneumonic process throughout

whole of left lung, also at apex of right lung (embolic). The liver was indurated. The spleen was very large, soft, and pulpy; it weighed three pounds eight ounces and a half, measured nine inches in length, six inches in width, and was three inches thick. Kidneys smooth; pelvis and ureters dilated so that they would admit one's finger. A collection of pus was found between the coils of the intestines in the neighbourhood of the uterus. No opening could be found connecting the pus with the interior of the bowel. The outer surface of the uterus was ulcerated, and the left ovary contained a collection of pus. On examining the brain, ecchymosis of vessels in the fissure of Sylvius was found. There was recent hæmorrhage into the interior of the frontal lobe of left side; the portion involved was about the size of a walnut. There was an aneurism, about the size of a pea, seated on a small-sized vessel within the parietal lobe; also a thrombus in the left internal carotid.

MIDDLESEX HOSPITAL.

THREE CASES OF FALL FROM A WINDOW—RECOVERIES.

(Under the care of Mr. GEO. LAWSON.)

THE three following cases were in Broderip and Percy wards at the same time under Mr. Lawson, and the injuries which each received were occasioned by falls from a height. The first patient was admitted into the hospital on account of phlebitis of the veins of the right leg. He was placed in Forbes ward, the top ward of the building. On the second day after his admission, whilst delirious, without any previous warning he suddenly rushed out of bed and threw up an opposite window, evidently with the intention of going out; but he was stopped by one of the nurses. With marvellous rapidity he then escaped from the nurse, ran across the ward, threw open the sash of another window, and was out of it before the nurse could get up to him to check his progress. About twenty-five feet below the window are the roof and skylight of the operating theatre, and on the latter he fell. He was immediately taken into Broderip (the accident) ward. He was insensible; his lower maxilla was fractured, and his face, left arm, and leg much cut with the glass. For the next two days the man continued in a state of semi-stupor, but eventually he completely recovered, and left the hospital quite well. The delirium which led to the man's jumping out of the window seemed to be pyæmic delirium, and to have been due to the phlebitis from which he was suffering. His previous history was that of a hard-working, temperate man.

The second case was a man who was admitted into the hospital suffering from injuries he had received from falling from the outside of a window about twenty feet from the ground. He was engaged screwing up some venetian blinds outside a drawing-room window, when he slipped and fell. In his fall the calf of his right leg became impaled on one of the spear-heads of the iron railings which surrounded the area. He had a severe lacerated wound of the calf of the right leg, which was followed by diffuse cellulitis, but after long suppuration the man recovered, and left the hospital quite well.

In both these cases the patients were prevented from falling to the ground by accidental impediments. If the man who jumped out of the window of the hospital had not been checked by the skylight of the operating theatre, he would have fallen over one hundred feet, and must have been killed; and we may reasonably believe that the patient who fell from the drawing-room window would have fractured his skull or his spine on the pavement had his downward progress not been arrested by the impalement of his leg on the iron railings.

The third case was that of a little boy, aged two years and a half, who fell out of a second-floor window on to the pavement. His head was probably the part which first struck the ground, as all the injuries he received were confined to it. He left the hospital in ten days quite well.

Case 1.—*Fall from the Top Window of Middlesex Hospital on to a Skylight twenty-five feet below.*

Samuel H., a blacksmith, was admitted into Forbes ward, May 10, 1875, suffering from pain and hard swelling of the right leg. A faint blush spreads over the greater part of the leg, and reddish lines may be traced up its inner side to the groin, where there are some enlarged glands. The superficial veins of the leg are hard and tender to the touch. Complains greatly of thirst; the tongue is coated with a brownish fur; the expression is heavy and anxious; eyes bloodshot; skin hot; pulse 84. The present attack commenced four days previously with a sharp rigor, which was followed by swelling of the leg and pain in the calf.

On May 12, the second day after his admission, he appeared wandering, but was quite tranquil, and at 10.30 in the evening he jumped out of the window, as described in the preceding remarks. He was then taken into the accident ward. He was quite insensible; his lower maxilla was fractured, and he had some superficial cuts about his arms and legs.

13th.—The man lies in a state of semi-stupor, but can understand when roused by being spoken to loudly. Has not voided any water. Catheter ordered to be passed twice daily. Urine high-coloured, specific gravity 1029, no albumen; temperature 101·5°. His wife states that he has always been an abstemious, hard-working man, frequently sitting up late at night designing his work for the next day.

15th.—Is conscious but dull. The redness of the leg has partially subsided, but there is swelling about the knee, with hardness along the inner side of the thigh. Glands in the groin still large. Pulse 90 and weak.

19th.—Much more intelligent. The use of the catheter is not required. Suppuration threatened about the knee-joint.

20th.—An incision was made outside the knee, and gave vent to about six ounces of pus; but apparently it was unconnected with the joint. Leg placed in a splint.

22nd.—The swelling about the knee and hardness up the leg subsiding; a small abscess opened on inner side of the knee, and another on outer side of leg just above the ankle.

From this time the man continued to improve, and on July 3 he was discharged quite well.

Case 2.—*Fall from a Window, impaling Calf of Right Leg.*

Henry C., aged twenty-nine, was admitted into Broderip ward on June 5, 1875, on account of an accident he had just received. Whilst putting up a venetian blind to the outside of a drawing-room window, he fell, and impaled his leg through the calf on to the spear-head of the area-railings. There was a deep lacerated wound in the upper third of the calf of the right leg, and a slight bruising of the left, with a small cut on the left elbow. These were the only apparent injuries which were produced by the fall. On the day after his admission the leg became hard and much swollen and very tender, and on the third day he had a rigor, and complained of great thirst and feeling very feverish. Pulse 84; temperature 99·2°.

On June 10 there was diffuse cellulitis, with a red blush extending from the ankle to a little above the knee-joint. The calf of the leg was boggy to the touch, with several large bullæ filled with bloody serum. Two deep incisions were made into the calf of the leg, which gave vent to a quantity of fetid pus with bubbles of air. The leg was then encased in a large poultice, and swung in a Salter's swing. He was ordered ammon. carb. gr. v., decoct. cinchonæ ℥jss. three times a day, and liq. opii ♏ xx. at bedtime.

11th.—Very restless, and complains of great pain; the redness up the thigh has increased. Pulse 88; temperature 102°. Ordered: Ext. opii gr. ss. every four hours; brandy to be increased to six ounces daily.

From this date up to June 22 he continued in a very precarious state from extensive suppuration and sloughing of the skin in the calf of the leg. The pulse varied from 88 to 100, and the temperature from 100° to 103·5°. Frequent incisions were made to let out the pus as soon as it could be detected in different parts of the leg. Gradually, however, he began to improve, and the large granulating surface in the calf of the leg to cicatrise; and after a prolonged convalescence he left the hospital in the second week of August quite well.

The patient continued the small and repeated doses of opium during the whole of the treatment, and to this drug may be mainly attributed the successful issue of the case. It allayed his pain, kept him tranquil, acted as a stimulant during the prolonged suppuration, and produced no headache or constipation.

Case 3.—*Fall from a Second-floor Window on to the Pavement.*

William M., aged two years and a half, was admitted into Percy ward on May 24, 1875, having just fallen from a second-floor window on to the pavement. He was unconscious. The face was much bruised; there was ecchymosis of the eyelids of both eyes, and a large blood-tumour of the scalp. There were no fractures of the extremities, nor injury to any other part of the body. After a few hours he regained consciousness.

May 26.—The child is progressing very favourably; he is quite conscious, but quiet. The bruising of the face is very extensive; it is discoloured everywhere, and the eyelids look almost black. There is still a large effusion of blood beneath the scalp.

30th.—The child seems almost well, except for the discoloration of the face. The blood beneath the scalp is gradually being absorbed.

June 5.—Ten days from the date of the accident the child left the hospital apparently quite well.

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HER MAJESTY'S SPEECH AND SANITARY LEGISLATION.

All medical men looked, we imagine, with more or less eagerness, and with some curiosity, to see what sanitary measures, and what measures directly affecting the profession, were mentioned in her Majesty's Speech in opening the present session of Parliament. It was expected that a Rivers Pollution Bill would certainly be announced; a measure dealing with Water-supply was thought possible, if not probable; and, considering the threatened collapse of the Army Medical Department, mention of a new warrant or some other measure for its reorganisation or reform might well have found place in her Majesty's Speech. It will be remembered that a Rivers Pollution Bill was introduced into the House of Lords last session by the Marquis of Salisbury. It was a small and feeble measure; contained vague and hazy definitions, and phrases open to, if not inviting, endless dispute; and, in drawing it, very little use seemed to have been made of, or guidance accepted from, the very full and valuable reports issued by the Commission which for ten years had studied the condition of our rivers and the means of improving it. It was withdrawn in July, and no one regretted it, except, perhaps, those who use our rivers and streams as sewers, and had rather not see a strong measure to prevent their pollution. The Water-supply question is a very important one, and is growing rapidly a more and more urgent one. While some measure for the improvement of the position of the Army Medical Officers has been long looked for, and promised; and the fatal dearth of candidates for the service has shown by the most telling of proofs how imperatively urgent is the necessity for it. But her Majesty's present Prime Minister is a man of surprises, and the Royal Speech contained no allusion whatever to sanitary legislation, and did not even hint that any attention is required to the state of the Army Medical Service. This conspicuous absence of any promise of sanitary measures was naturally noticed by the leaders of her Majesty's faithful Opposition; but the only effect of this was the assurance that the Government have other important measures besides those specified in the Speech from the Throne; and these "other important measures" include a Bill to prevent the pollution of rivers. A multitude of notices of motion were given by private members for leave to introduce Bills, and among these are several old friends—as Mr. Cowper-Temple's Bill to amend the Medical Acts, with special reference to the case of women who have taken degrees; Mr. Forsyth's Bill to remove the disabilities of women; and Sir H. Johnstone's Bill to repeal the Contagious Diseases Act; but none of them are sanitary measures—unless, indeed, we include under that heading Sir Wilfrid Lawson's Permissive Prohibitory Bill, and some other Bills for restraining the sale of intoxicating liquors or amending licensing laws.

None of her Majesty's subjects can have rejoiced more than did the medical profession at large, that she once more felt able to open her Parliament in person, and no class would more deprecate meddlesome legislation; but we may be permitted to regret that the Speech put in her mouth contained no reference to any public health measure, as we must suppose that matters mentioned in the Speech from the Throne are those about which the Government are most solicitous; and we are not prepared to accept the inference, which Earl Granville "hoped" he might draw from their silence—"that the public health is now in a satisfactory state."

IDEAL MEDICINE.

It is an instinct of the human mind to strive for perfection: we all have a desire to move forwards, to increase our skill and enlarge our knowledge; and we almost all at some period of our life have visions, more or less dim, of a perfect ideal which we vainly endeavour and long to realise. It is well for us that it is so. If men were content to plod along in the grooves worn by their predecessors, science would make no advances, art would never improve, and we should be as far from perfection now as we were five hundred years ago. Since, however, man's restless spirit is ever straining to pierce upwards or onwards, ever seeking to unravel some fresh mystery, and to add something to the stock of human knowledge, the ideal we have mentioned must always exist, and we shall always be striving—vain though our toil may be—to reach it. In no branch of knowledge, probably, is such an ideal more ever-present than in Medicine. Who of us has not longed for a perfection of knowledge in diagnosis and a completeness of resource in therapeutics? and how often have we, all of us, felt how infinitely far we are from the attainment of that ideal, as we have stood by the bedside of a patient, helplessly watching that ebbing-away of life which we were powerless to check. But, although our ideal may seem so hopelessly distant, it is well that we should occasionally be reminded of its existence, and have our most glaring shortcomings pointed out. Our knowledge has made vast strides, and is still pursuing its onward course, ever approaching by degrees the long-wished-for goal, and it may be that in time that goal may be reached, and the victory over disease fairly won. Such, at any rate, appears to

be the opinion of Dr. Broadbent in the address which he delivered before the Harveian Society. After glancing at the present state of our knowledge, and showing how limited was our acquaintance with physiology, both normal and morbid, Dr. Broadbent showed that our greatest deficiency of knowledge lay in regard to treatment. We have so little of what is called a rational or scientific system of therapeutics: our methods of treatment are all based so much on mere experience. The ideal of therapeutics which Dr. Broadbent looks forward to "is one in which the treatment will be directed by an exact and precise knowledge of the physiological and therapeutical action of remedies." That this knowledge will be attained in course of time is very probable—nay, almost certain; and it is in this very direction that a great amount of work by able and distinguished labourers is being done. Almost daily is some addition being made to our acquaintance with the action of remedies, and amongst the most valuable of these researches are those which "are in accord with, and give a scientific explanation of, the teachings of experience." There are two things necessary for exactness of knowledge in therapeutics. We must know what our medicines will do, and we must also know how they do it. The first we shall have as the result of experience, and the second as the result of scientific inquiry. It would seem, therefore, that experimental application of drugs must always precede scientific employment of them. We must first ascertain empirically what they will do, before we can proceed scientifically to demonstrate how they do it. There are very few cases in which the action of a remedy has been predicated from a scientific acquaintance with its physical or chemical properties. It is evident, therefore, that a vast deal still remains to be done before a scientific system of therapeutics can be formed; but it is this period that Dr. Broadbent anticipates. "I look forward," says he, "beyond merely this knowledge of the action of remedies; I look forward to a time when we shall know not only what medicines will do, but how they do it; when, in fact, teachers of medicine, in speaking of a case to their students, will not, in their appeals to the reason of the student, suddenly stop short when they come to treatment. We explain a case to a student; we appeal to the facts of physical and chemical science just up to that point where treatment commences; and here, in very many cases, we fall back on simple experience. The reason of the student is no longer called upon to follow us; we expect him, on the strength of what we have previously taught him, to take, perhaps, our authority or the accumulated experience which may find in us an exponent. I think that sooner or later we shall have therapeutics referred to the laws of physics and of chemistry." When that shall have been done, and done effectually, we shall reach an accurate knowledge of the action of remedies, and "shall be able to employ those remedies with much more confidence and much greater effect. We shall be able to apply them in, so to speak, unknown cases—in cases new to our experience, from a knowledge of general principles; and in this way, I am sure, we shall approach, and ultimately attain, the ideal of Medicine."

These words of Dr. Broadbent's, while showing us how far we are from the ideal he mentions, may yet be of use to those who are striving to attain to it, and will encourage the workers in the field of scientific therapeutics, by the increased knowledge of which alone can our system of medicine attain anything approaching perfection. That this perfection may, as Dr. Broadbent believes it will, be ultimately attained, should be the desire and aim of every practitioner of the healing art, and we should all labour to make it impossible for even a cynic to say, with any show of truth, that a physician is "one who pours drugs of which he knows little into a body of which he knows less."

IMPROVED DWELLINGS FOR ARTISANS AND LABOURERS.

Not a little information may have been gathered lately from the columns of our contemporary the *Times* as to what is being done, or about to be done, under the Artisans' Dwellings Act of last session, towards providing improved dwellings for our artisans and labourers; and much discussion has been excited by the consideration of one very important point connected therewith—viz., how are improved habitations to be provided for the poorer class of our daily labourers? Sir Sydney Waterlow, in an address to his constituents at Maidstone, spoke with grave disapproval of a report that the Metropolitan Board of Works, in their scheme for the Holborn area, proposed to construct 1000 tenements, each to consist of a single room. At the next meeting of the Board, the engineer and superintending architect presented a report relative to the number of tenements, consisting of one, two, and three rooms respectively, which they considered might be provided under the scheme for the improvement of the unhealthy area adjoining Gray's-inn-road—the area alluded to by Sir Sydney Waterlow;—and they pointed out, first, that the Board do not propose to construct any tenements, but only to clear the condemned area, and then "to invite Sir Sydney Waterlow, or any other persons interested in the welfare of the labouring classes, to construct suitable tenements upon it in accordance with a scheme to be approved by the Home Secretary, presumably at the low rents which the class to be displaced are capable of paying." The scheme contemplates the removal of 5500 adults and children, and it was suggested that the new buildings should be arranged in tenements of one, two, and three rooms each. At first 1000 were to be of one room, or two smaller rooms at one-room rent; but in the scheme finally submitted to the Board, the number of one-room tenements was reduced to 650, "of not less area than 150 feet each." Each single room was also to be provided with "a recess for a bed, capable of being separated from the room." In the discussion on the presentation of the report, it was pointed out that the scheme had been drawn to show in what way the Board thought tenements could be provided on the site for an equal number of artisans and labourers to those who would be displaced, and at such rents as they could afford to pay. Provision must be made for single men and women, and for widows, as well as for families; and it was stated that the inhabitants of the area in question are of a much lower class than those residing in the buildings erected by Sir Sydney Waterlow's company: many of them, for instance, are dock labourers, earning not more than 15s. a week, to whom a weekly rent of 6s., 5s., or even 4s. a week, would be, practically, a prohibitive rent; while in one plot of Sir Sydney Waterlow's buildings, erected in the Commercial-road, the lowest rent charged is 6s. a week. Sir Sydney, in a long letter to the *Times*, replied to this statement, but it does not appear to us that he answered it. He dwelt on—what we all agree in—the importance and desirability that "every family in England should have at least two rooms to dwell in," and asserted that "the public throughout the kingdom are anticipating the rapid approach" of this good time; and he said, perhaps very truly, that single men and widows are, as a rule, "more comfortably accommodated as sub-tenants to a respectable married couple than when independently." "A woman is frequently able," he says, "to take three rooms, if she can let one furnished room at a profit, and keep two rooms for herself at very little more than the price of one." We do not see that this meets the difficulty. The lodger, or sub-tenant, would still be the tenant of one room only, or, if that is to be kept solely as a bedroom, would crowd the other rooms during some portion of the twenty-four hours; and while many single men and women, and widows would most likely refuse such an arrangement, and prefer

homes "of their own," on the other hand probably many a "respectable couple" would also dislike it and decline taking lodgers. The tenements provided by Sir Sydney Waterlow's Company and by the Peabody Fund are undoubtedly an immense boon to clerks and the more highly paid artisans and labourers, but they do not meet the case of dock labourers and unskilled artisans. The report, lately published, of the "Improved Industrial Dwellings Company," shows that they are doing very good work, and they pay a dividend at the rate of 5 per cent. per annum, free of income-tax; but we do not gather from the report, as given in the *Times*, what are the lowest rentals charged, and they do not provide single-room tenements. The chairman of the Workmen's Dwellings Improvement Company has written to say that his Company "will shortly be in a position to demonstrate in a practical way that good buildings for the poor, which are neither luxurious nor costly, but airy, commodious, and convenient, can be remunerative." They are building in a notoriously wretched neighbourhood a block of tenements which are to vary from one to three rooms each; and they "confidently anticipate" a return of 5 per cent. for their shareholders. This is, however, unfortunately, only an "anticipation," but we shall watch the experiment with much interest. The question raised—how to provide decent, healthy, comfortable, and convenient dwellings for the low-wage-earning labourers—is one of very great importance, and one of growing urgency. Very numerous, and in some cases extensive, areas will soon be dealt with under the Artisans' Dwellings Act. In the City of London alone the Medical Officer of Health to the Commissioners of Sewers has presented to them twenty-one sites as requiring to be so dealt with. A deputation from the Commissioners lately had an interview with the Home Secretary to seek his approval for the only one of the twenty-one schemes at present fully prepared; and the scheme so presented has reference to "the very worst class of house-property, as far as sanitary arrangements are concerned." Can anyone be so Utopian in his ideas as to hope that even a majority of the people who will be displaced if those areas are cleared will be able to pay rents for tenements of two rooms each? We must confess our inability to believe they will, much as we must wish it. If the improved dwellings erected under the Artisans' and Labourers' Dwellings Act only provide tenements at a rent of five, six, or seven shillings a week, the class we speak of will infallibly be only driven from the improved areas to overcrowd other places, and to increase the evils already existing there; and in attempting to improve too much, new unhealthy areas will be erected. We do not see why single men and women, widows, and married couples without children should not be able to live decently and healthily in one room. Great caution and care must undoubtedly be exercised in the construction of the rooms and in their supervision, but we do not recognise the impossibility of this; and it is to be remembered that every scheme under the Act has to be submitted to the Home Secretary for approval. Miss Octavia Hill, who has well earned the right to be heard on the subject, shows good sense and judgment, we think, when, writing on it, she says:—"It does not appear to be realised by those who have criticised the scheme for dealing with the site which the Metropolitan Board of Works is about to clear near Holborn, that if single rooms—*i.e.*, rooms with separate access to passage or staircase—are constructed, we are no worse off than before as regards the problem of overcrowding. To construct such tenements no way obliges families to occupy one room only. As their habits and their means improve, they will be able to take two, or even three rooms close to each other, and opening on the same passage. If for the present the narrowness of their means, or their imperfect civilisation, led them to be content with one room only, surely it is a distinct gain that this one room should be clean, light, dry, and airy, instead of dark, close, and dilapidated? The problem of how many rooms the poor can be induced, or may be compelled, to occupy may—nay, must—be left, I believe, for future consideration; but do not let us say, in effect, to the class displaced, 'We shall not interfere with you if you go elsewhere and live in one bad room, but we think it a shocking thing to provide you with one good one in its stead.'" We are inclined to agree with Miss Hill; and we shall watch anxiously, and with great interest, any effort that may be made to prove that "good rooms can," as she says, "be built so that each can be let at the same rental as those about to be destroyed (in the Holborn area), and yet yield a return upon the outlay which will attract a sufficient amount of capital to erect any number of blocks that may be required." That this could be done was, we imagine, the belief of Government in promoting the Artisans' and Labourers' Improved Dwellings Act. If the effort fails, it may be necessary to consider, in the interests of the public health, whether the cost of such dwellings may not be well and rightly provided for in part at the national expense.

THE WEEK.

TOPICS OF THE DAY.

It is reported from Plymouth that the Liverpool ship *Royal Sovereign* has put into Falmouth, having a very large proportion of her crew disabled by scurvy. Eighteen have been conveyed to the Sailors' Home at Falmouth, several being in such a condition that they had to be carried on stretchers, and only four remain on board the ship. The crew suffered very greatly on the voyage from Kurrachee, and the vessel returned home in charge of the mate, the captain having died on the passage. The crew had complained of the quality of the biscuit, and objected to the beef and pork, which were stated to be putrid; the captain, however, ordered them off the quarter-deck, and forbade any further complaints being made. They were thus compelled to eat the provisions complained of; and gradually one by one they fell ill, until not enough were left to work the ship. The Board of Trade have ordered an inquiry into the matter, and certainly, if facts have not been exaggerated by rumour, this is a case demanding a most searching investigation. The inquiry is to be held in London as soon as the ship arrives there and the men are sufficiently recovered to bear removal.

We recently published the heads of a memorial presented to the Chief Secretary for Ireland by the King and Queen's College of Physicians in Ireland, on the subject of the necessity of retaining the office of Medical Commissioner to the Local Government Board in that country. We are now happy to be able to record that Dr. Croker King, Medical Inspector under the Local Government Board, has been appointed to the Medical Commissionership lately vacated by Dr. McDonnell. Dr. Croker King is well qualified for the office, having had a long experience in the department.

A recent trial at Common Pleas, before Mr. Justice Brett, is of some importance to the medical profession. The plaintiff, a soap-boiler, brought an action against Dr. Lamb, a practitioner of Walworth, to recover damages for injuries sustained by his (plaintiff's) wife owing to the want of skill of defendant's assistant, who attended her in her confinement. After hearing a great deal of medical evidence, the jury awarded the plaintiff £40 damages.

Dr. W. Farr, of the General Register Office, shows, in his annual classification of the causes of death in England, that in the year 1873, for which detailed returns have recently been issued, there were among the violent deaths 1290 which were connected with railways, including deaths of railway servants. It is worthy of remark that the violent deaths in that year

caused by horse conveyances of one kind or other—namely, 1250—were very nearly equal in number to the foregoing. The deaths from railway accidents comprised 1185 of males, and only 105 of females; whilst of those killed by horse conveyances 1056 were males, and 194 females. Dr. Farr remarks that the deaths on railways may be regarded as deaths additional to those incurred in the old conveyances, including the waggons, carts, etc., of the country.

Two cases affecting charitable institutions for the relief of patients came before the Court of Chancery last week. The first, an administration case, was brought on for further consideration to determine whether certain items could be validly bequeathed for charitable purposes, notwithstanding the mortmain laws. The testator, late of Aberystwith, bequeathed the residue of his personal estate on trust, as to half thereof, for the benefit of the Aberystwith Infirmary, to be applied in such manner as his trustees should deem most beneficial for the sick poor. An order for administering the estate was made at the suit of the trustees, and inquiries as to the testator's property and other matters directed. This was found to consist of various items to the value of about £40,000 amongst which were shares in Welsh mining companies and a bond of the Aberystwith Harbour Trust. The next of kin objected that these items were an interest in land within the provisions of the Mortmain Act, and could not be bequeathed for charitable purposes. The Vice-Chancellor, however, held that the items in question did not fall within the law of mortmain. He directed a scheme to be prepared for the application of the share given for the benefit of the Infirmary. As the institution was said to have suffered in income since the legacy was given, he ordered the sum of £450 to be paid to the trustees of the Infirmary at once. The second case was an application for an injunction made by the trustees and governors of the Birmingham General Hospital to restrain the defendant from permitting the use of a piece of land in close proximity to the Hospital as a rifle or gun range, or permitting the discharge of firearms thereon to the annoyance or injury of the patients in the hospital, many of whom were suffering from accidents caused by explosions, and were therefore very sensitive to any sudden noise. The piece of land in question was fifty-six yards from the Hospital, and separated from it by the Birmingham Canal and by land not built upon. Up to October last it had been used as a coal-yard, but recently the defendant had constructed a shooting-box and target upon it, so that it might be used as a range for trying and proving guns and rifles by the gun-makers of the neighbourhood. The defendant did not appear, and the Vice-Chancellor granted the injunction upon affidavit of the service of the notice of motion.

A very remarkable epidemic has recently broken out at the village of Eagley, about three miles from Bolton. About seventy or eighty persons have, within the last ten days, been attacked with swelling of the tongue and eyes, accompanied by sickness, insensibility supervening in some of the severe attacks, the children seized being the worst sufferers. In one street not a single house escaped, and in some dwellings all the inmates suffered to a greater or less extent. On Saturday last the sickness was reported to the proper authorities, and Dr. Robinson and Dr. James Robinson at once proceeded to attend upon those affected. From the symptoms which presented themselves it was at first thought to be an outbreak of foot-and-mouth disease. Investigation showed that all the patients were suffering from blood-poisoning; and from the fact that the families attacked had all been supplied with milk from the same farm, it was to the dairy that the doctors turned their attention for an explanation of the outbreak. To which we shall again refer.

Some slight damage was done by a fire which occurred on Sunday last in the new wing of the London Hospital, Whitechapel-road. Fortunately the fire was extinguished before it had extended beyond the flooring.

The Registrar-General's return for the week ending January 29 shows that 2733 births and 1637 deaths were registered in London during that period. Allowing for increase of population, the births exceeded by 222, but the deaths were 29 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been equal to 23·8 and 26·7 per 1000, declined in the week under notice to 24·5. The 1637 deaths included 49 from measles, 79 from scarlet fever, 7 from diphtheria, 88 from whooping-cough, 23 from different forms of fever, 15 from diarrhœa, but not one from small-pox. The deaths referred to diseases of the respiratory organs, which in the three previous weeks had been 351, 390, and 491, declined in the week to 414; this number, however, exceeded the corrected weekly average by 8, and included 270 from bronchitis, and 91 from pneumonia. The lowest rate of mortality per 1000 for this week was shown at Plymouth with 16, and the highest at Oldham with 41. Fatal cases of scarlet fever were excessive in Bradford, Portsmouth, and Bristol, and of fever in Oldham, Sheffield, and Liverpool.

Another fatal example of the growing habit of taking chloral without medical advice is reported from Liverpool. The evidence at the coroner's inquest showed that the deceased William Wylie, thirty-five years of age, a clerk, residing at 211, Park-road, took a dose of chloral on the morning of the 5th inst., and died an hour afterwards. He is reported to have been suffering from the effects of over-study, and to have had recourse to the drug from having heard that it was useful in allaying pain.

QUESTIONABLE CONDUCT OF A MEDICAL MAN.

Last week, Mr. Bedford, coroner, held an inquiry at Pimlico respecting the death of a solicitor's clerk, named Hall, who, it was alleged, died from the effects of opium. Deceased had been ill for some time, and had been attended by Dr. G. Griffith, of Lupus-street, Pimlico. Dr. Griffith gave a certificate of death, but the registrar refused to receive it, as it stated that death was due to "an overdose of mixture" containing morphia. An inquest was ordered, and Mr. Thomas Bond was requested to make a post-mortem examination and analysis of the contents of the stomach; but he failed to find a trace of morphia in the body. He gave it as his opinion that death had resulted from effusion of serum on the brain accelerated by disease of the heart. He also tested the mixture ordered by Dr. Griffith for the deceased, which, according to the prescription, should have contained three grains of morphia in twelve doses, but failed to find a trace of that alkaloid. Mr. Bond was of opinion that if deceased had taken all twelve doses of the mixture it would not have caused death. In his evidence, Dr. Griffith stated that he had attended deceased since Christmas, and had advised his removal to an asylum. He believed that Mrs. Hall had not attended to his instructions and had not given deceased food. He also believed that she gave him an extra dose of medicine in order to induce sleep, and he then altered the prescription by omitting the morphia. The Coroner here asked Dr. Griffith to explain what he meant by the words as to the cause of death "from an overdose of mixture," and in reply he stated that he was under the impression that Mrs. Hall had neglected his instructions and given deceased an overdose of morphia. The newspapers report that "an angry and painful altercation" ensued between Dr. Griffith and Mrs. Hall, in the course of which the former said that Mrs. Hall had asked him to give the deceased something that would put him out of misery. This Mrs. Hall indignantly denied, although she

admitted that she might have asked for something to keep him quiet in order that she might manage him when he was raving. The jury having returned a verdict in accordance with Mr. Bond's evidence, the Coroner commented on the manner in which Dr. Griffith had given the certificate which had led to the inquest. He should have communicated with him in the ordinary way, and he would then have caused inquiries to have been made and decided as to the necessity for an inquest. Dr. Griffith's conduct certainly does appear rather extraordinary, especially as there were (as far as we are able to judge) no facts within his knowledge to justify the statement he made on the certificate as to the cause of death.

PROPOSED ADDITION TO THE MEDICAL STAFF OF THE HULL INFIRMARY.

THE professional mind in Hull has been somewhat agitated of late on account of a proposed increase to the honorary medical staff of the Infirmary in that town. Some time ago a majority of the profession in the town and neighbourhood submitted a memorial to the committee of management of the Infirmary to the effect "that the members of the honorary staff of the Infirmary ought to be increased." In reply to the memorial, the committee stated that the subject was already under their consideration, and that resolutions thereon would be proposed at the general meeting to be held on March 2. The present honorary staff have, we understand, prepared a scheme providing for an addition to their numbers, which has been adopted by the committee of management, and will be submitted to the general meeting for confirmation. The scheme provides for the appointment of four gentlemen with the title of "honorary assistant medical officers," who shall be elected by the committee of management instead of by the governors, as in the case of the physicians and surgeons. They are to be appointed respectively for three years, but shall be eligible for re-election. Any legally registered medical practitioners will be eligible for election. They will be expected to take charge of the out-patients, and perform such other duties as the committee of management, on the recommendation of the physicians and surgeons, may assign to them. The profession generally, in Hull, disapprove of the scheme, more especially as to the title proposed to be given to the junior honorary staff, their mode of election, and duties. A warm discussion on these points is expected to take place at the general meeting next month.

NEW DISCOVERY OF MOA BONES.

SUCH of our readers as are students of natural history will be interested in learning that New Zealand papers report a discovery of moa bones in that colony farther north than any have previously been found. No remains of the extinct bird having been hitherto discovered north of the town of Auckland, the moa region was supposed to have lain altogether to the south of that place. The advices now received, however, state that numerous bones, representing the skeletons of fifteen moas, have been found along the beach, sixty miles to the north of Auckland. The discoverers were Mr. George Thorne and Mr. Kirk (the Secretary of the Auckland Institute). With the moa bones were discovered several human skulls and a complete human skeleton in a sitting posture (the position in which it was usual to bury Maoris); also many large pebbles, such as the moa was in the habit of swallowing with it food; a rude stone hatchet; and some chips of obsidian. The spot where the remains were discovered was at one time covered with vegetation, but this having been burned by bush-fires, the ground had been covered by drifting sand, the disturbance of which by the wind has exposed the bones. The natives in the district had no knowledge whatever of the existence of any of the remains discovered, whose antiquity is believed to be considerable. We are indebted to our contemporary *Nature* for this interesting news.

A RARE FORM OF "PHTHISIS."

AN inquest was held last week, before Dr. Hardwicke, on the body of a woman who died after a long illness, during which she was attended by Mr. Turnbull, a practitioner residing in the Hampstead-road. Mr. Turnbull had given a certificate to the effect that the cause of death was phthisis. In consequence of certain representations that were made to the coroner, an inquest and post-mortem examination were ordered. The post-mortem examination was made by Dr. O'Connor, Physician to the Royal Free Hospital, who found that the lungs were perfectly healthy, and that death was due to exhaustion induced by habits of drinking. At the inquest Mr. Turnbull adhered to the correctness of his certificate, and contended that the disease was a peculiar form of phthisis which had been described by Dr. Theodore Williams. The jury, however, declined to accept Mr. Turnbull's view of the case, and returned a verdict to the effect that death was from exhaustion brought on and accelerated by habits of drinking. The jury also stated that they were not satisfied with the conduct of Mr. Turnbull.

AN INTER-HOSPITAL FOOTBALL MATCH.

AN interesting football competition is now proceeding, between the various hospital football clubs in the metropolis, for the possession of a very handsome challenge cup. At present the cup is held by Guy's, but this year there is now no doubt the cup will be transferred to another hospital. On the 1st inst. the London and St. Mary's teams met, and after a very well contested game the match ended in a draw. On the 3rd the St. George's and King's teams met, when the former club was victorious by four goals to nothing. Guy's and St. Thomas's Hospitals met on the 4th inst., and after a very hard struggle the match resulted in favour of the latter. On Tuesday the University College vanquished St. Bartholomew's Hospital, having scored one goal and two touches-down to a try. The competition will be continued next week, and the final contest will take place on the 21st inst.

THE BERLIN UNIVERSITY.

THINGS seem to be looking up at Berlin. This winter there are 419 more matriculated students than there were in the summer session of 1875. The total number is now 2143; of these 263 are medical students, and the rest belong to the faculties of law, theology, and natural philosophy. There are 174 Prussian medical students, and 89 non-Prussian. The latter consist of 16 from extra Prussian states within the German Empire, 4 from Austro-Hungary, 38 from Russia, 3 from England, 2 from Switzerland, 2 from Greece, 1 each from Italy and the Netherlands, 4 from Roumania, 2 from Servia, 1 from Spain, and 2 from Turkey. America sends 10, Africa 2, and Asia 1 of the medical students. In spite, however, of the increase above stated in the total number of students of all kinds, the increase on the medical side is very small compared with that in the other faculties, and only amounts to an excess of 4 over the previous summer—263 instead of 259.

UNIVERSITY OF GLASGOW.

THE University Court of the University of Glasgow have now definitely resolved to appoint additional examiners in medicine as follows:—Anatomy (1), Chemistry and Materia Medica (1), Botany and Zoology (1), Physiology and Pathology (1), Practice of Medicine and Clinical Medicine (1), Surgery and Clinical Surgery (1), Midwifery and Medical Jurisprudence (1). In all, seven additional examiners will be appointed. Of these, two shall hold office for three years, two for four years, and the remainder for five years. The appointments take place in March, and the annual fee of each examiner has been fixed at £40.

THE SEAMEN'S HOSPITAL AT GREENWICH.

The fifty-fifth annual Court of the Governors of the above Hospital (formerly the *Dreadnought*) was held last week at the City Terminus Hotel, Cannon-street. In the absence of the Lord Mayor, who was announced to take the chair, Captain the Hon. F. Maude, R.N., presided, being supported by the Right Hon. A. S. Ayrton, the Consuls-General for Denmark, Austria, Hungary, etc. Mr. H. C. Burdett, the Secretary, read the annual report, which showed that during the past year, as compared with 1874, there had been a net increase of £4482 12s. 1d., while there had been a net decrease in expenditure of £434 4s. 4d. There had been an increase in the amount received from legacies, which included the following:—Executors of the late Lady Truro (fourth payment), £1513 13s. 6d.; the late Mrs. Sills-Gibbons, £300; and the late Mrs. Liveing, £10 10s. The Committee desire to draw public attention to the fact that since the patients were removed from the old *Dreadnought* very few sums have been bequeathed to the Society, and they believe this serious diminution is due to an erroneous impression that the Hospital is now wholly or partially supported by the Government. A special appeal was issued in April last, which has been liberally responded to, and has resulted, in something less than eight months, in the receipt of £2500 in donations, and of £527 in new annual subscriptions. The Committee earnestly solicit the public to come forward and increase the amount now received in annual subscriptions from £2000 to £5000; and then, if, on an average, £50 annually be received from each port that sends patients to the Hospital in the course of the year, the Society will be established on a sound financial basis. After some discussion the adoption of the report was moved, and carried unanimously.

SIR JOSEPH FAYRER, K.C.S.I.

Mr. Ridley, in moving the Address from the House of Commons in answer to the Speech from the Throne, justly spoke of the signal foresight and success that have marked the ordering of the Prince of Wales' progress through India. No slight share in the labours and anxieties of that successful ordering has been taken by Dr. Fayrer as the medical adviser of the Prince; and it is no doubt in recognition of the ability, judgment, and decision shown by him in the discharge of his very important and responsible duties that her Majesty has been pleased to promote him from the Companionship to the class of Knight Commander of the most exalted Order of the Star of India. We most heartily congratulate him on a mark of her Majesty's approval as fully deserved as it is gratifying.

ARMY MEDICAL DEPARTMENT.

The following is a list of the candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley:—

	Marks.		Marks.
1. Hewett, F. C. C.	5012	8. Fleming, H. B.	3520
2. Le Grand, W. J.	4592	9. Daubeny, C. A.	3433
3. Taaffe, R..	4275	10. Burges, W. A.	3356
4. Findlay, J.	3894	11. Ievers, P. G.	3030
5. Briggs, W. H.	3818	12. Hayes, P. A.	2995
6. Thompson, T. W.	3771	13. James, W. M.	2933
7. Fenn, E. H.	3537	14. Kirkwood, K. D. L.	2565

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

The fifth meetiug of this Society was held on Friday, February 4, at the Royal Kent Dispensary, Greenwich-road, Dr. J. N. Miller (President) in the chair. Dr. Tilbury Fox read a very valuable paper on "Ringworm." There was an excellent attendance, and a good discussion. The next meeting will be on Friday, March 3, at 8 p.m. precisely, when the President will read a paper "On the Germ Theory of Disease."

THE DRAINAGE OF KINGSTOWN, COUNTY DUBLIN.

On Monday last, Mr. O'Brien, one of the Inspectors of the Local Government Board, Ireland, opened an inquiry at Kingstown in reference to the petition of the Township Commissioners for a provisional order to enable them to carry out a new scheme of intercepting sewers for the township and district. The inquiry was expected to extend over some days. It is one of great importance, as the questions involved will probably make or mar the reputation of the most populous, wealthy, and attractive suburb of Dublin as a fashionable watering-place and summer resort.

PARLIAMENTARY.—QUEEN'S SPEECH—LONDON PARISHES—CONTAGIOUS DISEASES ACTS.

The session of Parliament, inaugurated by the presence of her Majesty in state, having been duly "opened," we resume, according to custom, our weekly summary of debates and Parliamentary intelligence, having special interest to the medical profession.

If we may judge from the Queen's Speech, little, if any, direct legislation will be proposed upon matters of sanitation. These may, perhaps, be said to have received a fair share of attention last session; but, as Mr. Disraeli intimated, the Government desired to include in the Queen's Speech only such matters of pressing importance requiring speedy and certain legislation during the current session, so as to avoid the charge of making rash and perhaps ultimately unfulfilled promises. Proposals for domestic legislation would be announced in due course; and Mr. Disraeli promised, in reply to Lord Hartington, that a Bill to check the pernicious practice of polluting rivers with refuse of all sorts should be introduced early in the session. Mr. Sclater-Booth may be said to be the Parliamentary hero of the past session, and Lord Derby of the coming one.

The announcements made already are that Sir William Fraser will, on the 15th inst., move that, in the opinion of Parliament, the parochial system is unwarrantable and inadequate to the variable requirements of the metropolis; and that the subject deserves the attention of her Majesty's Government, with a view to remove by legislation the great evils which at present exist.

Sir Harcourt Johnstone will move on an early day for leave to bring in a Bill to withdraw the Contagious Diseases Act.

Mr. Cowper-Temple moved on Thursday for leave to introduce a Bill to amend the Medical Acts, with special reference to the case of women who have taken degrees.

If we may judge from the numerous petitions in circulation, condemning "the obnoxious practice" of vivisection, this subject will, doubtless, be debated in Parliament as soon as the labours of the Vivisection Commission are completed.

Statistical Society.—The fourth ordinary meeting of the present session will be held on Tuesday, the 15th inst., at the Society's Rooms, Somerset House-terrace (King's College entrance), Strand, W.C., when papers will be read on "The Municipal Government of Paris," by Sir Chas. Dilke, Bart., M.P.; "International Prison Statistics," by Dr. F. J. Mouat, F.R.C.S. The chair will be taken at 7.45 p.m.

Eserine in Asthenopia and Senile Presbyopia.—Prof. Gubler stated, at the Société de Thérapeutique, that the disturbances of vision which succeed acute and sometimes chronic diseases, and which are due to consecutive paralysis, characterised by asthenopia and debility of the muscles of the eye, may be effectually treated by the Calabar bean. To remedy this condition of asthenopia (difficulty of accommodation, with vague perception of the images produced by near objects, and dilatation of the pupil), a few drops of a solution of sulphate of eserine ($\frac{1}{300}$th to $\frac{1}{200}$th) should be put into the eye, and in an hour or two the vision is rendered quite distinct. For the first fifteen or twenty minutes the pupil is rendered narrow or punctiform, and the vision is more troubled in the eye so treated than in the other. But the pupil then redilates until it reaches the medium size, and vision becomes very distinct. Prof. Gubler has also applied the eserine in presbyopia, for, although this is a normal consequence of the progress of years, it seems in a great number of instances to be increased by starts; and in such cases eserine is of great service. It is an excellent means for at least diminishing the rapidity of the advance of presbyopia.—*Gaz. Heb.*, February 4.

MORE NOTES ON WINE AND SPIRITS.

(*Continued from page* 17.)

CORDIALS DUE TO THE APOTHECARY—ABSINTHE AND GIN—LEGITIMATE USE OF SPIRITS—VINDICATION OF GIN—POPULAR EXAGGERATIONS.

IT is difficult, in looking at a list of cordials, such as peppermint, anise, clove, and the like, to say what was the precise origin of each, but there are two of the most famous, or infamous, which we believe owed their birth certainly to the apothecaries.

The gin, or spirit of juniper, has appeared in every pharmacopœia for the last two hundred years; and the *absinthe* is identical in its chief ingredients with the *aqua Alexeteria composita* which figured in the Pharmacopœia down to the beginning of the present century. The chief ingredients are the essential oils of anise and of wormwood. *Absinthe Suisse* is a greenish-yellow sweet liquid, tasting strongly of anise. It has been on sale in London for many years, but its use does not spread. Dire effects are reported of the abuse of it in France, but of these I have no experience.

The following is the formula given in the Pharmacopœia Londoniensis, of 1746, for the preparation of the "Aqua Alexeteria Spirituosa," as it was then called:—

℞. Foliorum Menthæ Vulgaris recentium, P. libram dimidiam.
Foliorum Angelicæ recentium,
Summitatum Absinthiæ Maritimi recentium, singularus, P. uncias quatuor.
Spiritûs Vinosi tenuioris, congium unum.
Aqua, q. s., ad evitandum empyreuma.
Distillatione eliciatur congius unus.(a)

The legitimate use of distilled spirits in diet follows from what has been said above. Whilst pure wine is the privilege of the young, and fortified wine or sherry of the middle-aged, distilled spirits are adapted to age and infirmity. They suit the enfeebled stomach; they promote labouring digestion, appease flatulence and colic, and restrain diarrhœa. In cases of mal-assimilation, such as gout, rheumatism, oxaluria, and diabetes, they are suitable during the earlier period of the cure, inasmuch as they are less liable than wine to unwholesome assimilative changes. They promote the action of the heart, warm the feet, steady the head, and give sound sleep to the old and feeble. The experience of mankind shows that when mixed with nutritive substances the amount and celerity of effect are enhanced. Rum and milk, brandy and yolk of egg, brandy in jelly, etc., are examples.

As for the poor, old, decrepit creatures, who are past work and past hope, but who want to make their hearts beat a little more lively, they take their little glass of gin, perhaps three-ha'porth,—and who is to blame them? Certainly it is not for the well-fed philanthropist, nor the rich and luxurious invalid, who can command every comfort, to throw derision or scorn at the poor old gin-drinker.

Really it would seem as if common sense and chemistry lost their hold upon the mind of everyone who writes against gin. Anyone who knows practically the use and abuse of spirits, knows that the best way of making the drinker satisfied with a small quantity is to flavour it strongly with aromatics, so that the stomach may be gratified quickly without any quantity of spirit in excess. Hence the use of juniper and carraway, and of capsicum and horseradish (if used): they make a little gin "go further." Moreover, it is well known that it is customary, before submitting certain spirits to redistillation, to add to them some saline substance to hold back the water, and otherwise modify the result. Thus alcohol is directed in the Pharmacopœia to be made by digesting spirit with carbonate of potass, and then distilling from the hottest quicklime. But who would venture to describe carbonate of potass and lime as ingredients in absolute alcohol? But this is just what is said about gin. We are told that gin contains "oil of juniper, oil of bitter almonds, potassa, alum, nitric acid, oil of vitriol or sulphuric acid, and butyric acid." Chemistry stands aghast at such a description; still more so does the cause of true temperance—for what good cause was ever carried by exaggerations? The public should be reminded of the boy who cried "Wolf" when there was no wolf.

That there are people of all ages and conditions who take fermented liquors to excess is unhappily notorious—the young led to it by open profligacy, the old probably by misfortune and disease. The eradication of these evils is the great problem of the age, but it will never be accomplished by unsound science and doubtful morality, and I shall show in my next and concluding paper that what is called "teetotalism" is tainted with both.

(*To be continued.*)

(a) Earlier editions, as that of 1722, contained several preparations of absinthe, as a simple distilled water, an *aqua lactis Alexeteria*, an *aqua absinthii minus*, and an *aqua absinthii magis* composita; the last two being distilled from spirit and a considerable number of aromatic herbs—the flowers, seeds, berries, or roots.

LECTURES ON CLINICAL MEDICINE,

DELIVERED AT THE LARIBOISIÈRE HOSPITAL, PARIS.

By S. JACCOUD, M.D.

TRANSLATED (WITH SPECIAL PERMISSION)

By Mr. C. J. CULLINGWORTH, of Manchester.

CHOREA—RHYTHMIC SPASMS.—II.

(*Continued from page* 72.)

Conclusions—Capillary Embolism considered with reference to Cerebral Embolism in general.

HAVING shown that the localisation of chorea in the corpus striatum cannot be accepted as a fact of constant occurrence, I proceed to draw your attention to the fact that this exclusive pathogenic hypothesis is another result of that fundamental mistake against which I shall never cease to raise my voice. I allude to the error of assigning to a single organ each functional operation. You may take it for certain, gentlemen, that there is no more a centre of motor co-ordination than there is a centre of speech. That the corpus striatum may take part in the production of choreic phenomena is certain; but to say that it is the exclusive centre is a palpable mistake. I have said, and shall continue to say over and over again, that the anatomical apparatus insuring motor co-ordination is distributed throughout the whole length of the cerebro-spinal axis, and there is no more reason to limit this function to the cord than to restrict it to the organs within the cranium.

Clinical observation clearly proves, for its part, that these series of co-ordinating apparatus, which are as many in number as the muscular regions themselves, are not always implicated to the same extent, and it would be desirable on that account to be guided by the facts. In certain cases of chorea, the disorder is confined to the limbs; in others it also occupies the facial muscles; at other times it reaches the muscles of the eye and larynx: how make out, then, that under all these circumstances the pathogenic seat of the phenomena is the same—unless by forgetting this fundamental principle, this axiom, which lays down *an adequate relationship between the symptoms and their organic seat?* It is very certain that the locality varies according to the distribution of the phenomena. In the first of the supposed cases, the co-ordinating apparatus of the cervico-lumbar portions of the cord are alone implicated; in the second case, the centre of the nerve-supply to the face in the medulla oblongata is involved in like manner; and, lastly, in the others the disorder is still more extensive, so that it affects the motor nerves issuing from the medulla, and the motor oculi emerging from the crus cerebri. It is only in these cases of general chorea that there is any ground for localising the point of departure of the phenomena in the corpus striatum, the central motor ganglion. Sometimes even the ataxy extends further still; and in grave attacks of chorea, with intellectual disturbance, delirium, and maniacal outbursts, it is very certain that the cortical layer of the hemispheres is itself involved. Yet, for all that, it will not enter into the mind of anyone, I suppose, to make that the exclusive seat of chorea. Never forget, gentlemen, that it is the distribution of the symptoms which must guide you in seeking for their pathogenic centres; and the change of place on the part of one of these two strictly correlated elements necessarily implies a like variation on the part of the other.

With regard to the cases in which the chorea is really dependent upon lesions of the corpus striatum duly ascertained at the autopsy, a question presents itself, which I the more gladly point out to you, inasmuch as it has not been alluded to by the upholders of Broadbent's theory. How do these lesions of the corpus striatum act in the production of choreic ataxy? Do they act directly as implicating a central ganglion, the last and highest of the series comprised in the co-ordinating apparatus? or do they act by an influence exerted at a distance, by an irritation propagated to the medulla oblongata and spinal cord? There is no real proof that the co-ordinating system is

prolonged beyond the pons varolii. Well, gentlemen, the second interpretation is the more probable; at least, I am able to adduce in its favour a case which appears to me very decisive. An old man of sixty-three, whose history has been recorded by Magnan, was seized with right hemichorea; at the autopsy, a hæmorrhagic centre was found in the left crus cerebri at its point of insertion into the optic thalamus.(a) Now, the crus cerebri is not a motor ganglion, still less an organ of co-ordination, and it is clear that in this case the lesion in the peduncle acted by distant irritation of the co-ordinating system of the medulla oblongata and spinal cord in their right half. It is not at all out of place, then, you see, to ask oneself whether this will not also be the pathogenic explanation of lesions in the corpus striatum.

To sum up, gentlemen, the relation between chorea and rheumatism, considered as a diathesis, is problematical. The relation between chorea and rheumatism, regarded simply as a disease of the joints, is infinitely less frequent than has been hitherto supposed. The pathogenic influence attributed to the rheumatic affection ought to be referred to lesions of the heart, notably to those of the endocardium. In those cases in which these lesions exist, they may give rise to chorea by producing capillary embolism. It is impossible to speak of this possibility as a fact of constant occurrence; it is impossible to consider cardiac changes as the sole cause of chorea. Moral and physical causes, either direct or reflex, retain an important position in the etiology of this neurosis. The organic seat of chorea cannot be localised in the corpus striatum; it occupies the co-ordinating apparatus distributed throughout the spinal cord and medulla oblongata; and this apparatus is involved to a variable extent, the implication being always exactly in proportion to the peripheral distribution of the symptoms.

Such are the conclusions dictated by a thorough and complete study of the facts; but if the new data with reference to capillary embolism do not warrant a general theory of chorea, they do teach, in my opinion, a lesson which in another way is of great importance. The few cases favourable to the theory prove that embolisms, many in number, but of no great extent, neither give rise to apoplectic seizures nor to paralysis, and in that fact there is enough to modify the whole clinical history of cerebral embolism. It will at least be henceforth no longer proper to admit an indissoluble connexion between obstruction due to embolism on the one hand, and an attack of apoplexy and hemiplegia on the other. That process, like every other, is subject to modifications arising from the degree of lesion; and, in the same way as embolisms of sufficient minuteness to merit the qualifying term "capillary" only produce disorders of co-ordination, so it is probable that embolisms of somewhat larger size, intermediate in some sort between the preceding and the ordinary large variety, may only produce partial and incomplete paralysis, without sudden seizure, and without apoplexy. This result of recent investigations on the subject of chorea is here pointed out for the first time, but it forms, in my opinion, the most useful one to be gathered from them.

(To be continued).

Ovation to Prof. Robin.—The day after the election of Prof. Robin as senator, the large amphitheatre was crowded to the ceiling, and when he appeared to deliver his lecture he was received with "phrenetic" applause, which lasted several minutes, accompanied with the cries, "Vive Robin!" "Vive la République!" and most of all, "A bas Dupanloup!" When silence was obtained, the Professor exclaimed, amidst thunders of applause, "It is not me you applaud, it is the Republic!" At renewed cries of "A bas Dupanloup!" he added, "Attack no one, gentlemen, for that is the best mode of showing that we are really strong." He then went on to speak of the nervous system to a very diminished auditory. When he quitted the theatre the manifestation was renewed outside; and as torches could not be obtained, the students (500 or 600 in number), amidst loud shouts, contented themselves with escorting the Professor towards his home. Finding their course, however, barred in one of the streets by a large squadron of police, they were obliged to disperse.—*Union Méd.*, February 5. [Three provincial medical men have also been elected senators, and Dr. Testelin was one of the life-senators elected by the National Assembly.]

(a) Magnan, "Hémichorée droite de date récente chez un vieillard de soixante-treize ans" (*Gaz. Méd.*, Paris, 1870).

FROM ABROAD.

Bromhydrate of Quinine.

Prof. Gubler, who gives a decided preference to the bromhydrate over the sulphate of quinine (*Medical Times and Gazette*, October 9, page 430), was recently questioned at the Société de Thérapeutique by M. Mialhe as to the ground of this preference. He replied (*Gaz. Hebd.*, February 4) that, contrary to what happens with the sulphate, even when associated with an inoffensive vegetable acid, the bromhydrate, when employed in subcutaneous injection, never gives rise to *nodi* or tubercular swellings, and still less to abscess. This is a very essential point, for no other solution of quinine has ever offered this advantage. This alone suffices to show the superiority of the bromhydrate; but, besides this, owing to the bromine that enters into its composition, it acts in a more sedative manner on the nervous system. Moreover, in many cases, while its antipyretic effects have been just as good as those produced by the sulphate, patients have not experienced the ill effects of quinine (*l'ivresse quinique*) in the same degree as with the sulphate. M. Mialhe maintained that these ill effects depended more on the amount of pure quinine taken than upon the particular salt. He does not believe that the sulphate, which has been charged with irritating the stomach, produces that effect; and he has himself taken 150 grains in five days without experiencing the slightest gastric disturbance. It is, in fact, the disease under treatment, not the sulphate, which gives rise to the gastric pain. Prof. Gubler, without being able positively to affirm it, believes that the bromhydrate exerts sedative effects. At all events, he thinks M. Mialhe speaks too lightly of the ill effects of the sulphate. Those who have practised in miasmatic districts, and especially their patients, know well that the ingestion of quinine does give rise to gastralgia—gastralgia not being a usual symptom of the fevers in question. At all events, much of this gastralgia is due to the quinine, and it seems to be less induced (as far as trials have gone) by the bromhydrate.

"It is also an error to suppose that all of a medicinal substance which is taken into the stomach penetrates into the circulation; and herein lies the superiority of the hypodermic method. Medicaments given by the stomach are slowly absorbed, and enough of them does not arrive at once in the blood, and especially in the parenchyma, to induce intense physiological effects. This fact is true for all medicinal substances; and, further, in the stomach they may undergo a great number of changes, not from digestion properly so-called, but from chemical alterations. When certain acids or other bodies are met with there in process of transformation, the molecular disintegration is communicated to the substance admitted, and it undergoes destruction; so that even in large doses the physiological phenomena proper to it are not produced. Thus we may give one, two, three, four, or even five milligrammes of the sulphate of atropia by the stomach without even inducing dilatation of the pupil, while one milligramme injected under the skin of the same patient may give rise to the most alarming symptoms. There are some substances which resist more than others these stomachal changes, and morphia is of the number. Quinine also does so, but not completely. Moreover, there are substances which undergo immediate transformation, as the glucosides, and unstable alkaloids, as aconitia. When large doses of quinine are taken into the stomach, it is by no means certain that all remains in the condition of quinine; quinidine, quinicine, and even inert substances may be formed. When we compare the action of the bromhydrate and of the sulphate, they should be compared as acting through the same channel."

M. Delioux observed that he was fully convinced of the irritating effect of sulphate of quinine on the stomach. This is especially the case with women; and persons who are usually the subjects of gastralgia find it aggravated by quinine, especially when this is taken fasting: in such it should be given at meals. But sometimes, in avoiding the gastralgia, we fail in attaining the curative effects of the drug. He is of opinion that the bromhydrate is especially indicated in persons with excitable brains. M. Beaumetz believes that it is an error to confound bromhydric acid with bromine, and it has never been shown that bromhydrate of quinine is an association of bromhydric acid and quinine. Combined substances are

different from those whence they are derived, and there is no reason why a bromhydrate should resemble a bromide. Prof. Gubler is of opinion that the formula has been misinterpreted. No one has ever proved that bromhydrate of quinine is an association of bromhydric acid and quinine, or that bromhydric acid exists in it. The denomination of the compound is a bad one, and it ought rather to be called a *bromide of quinine*, just as, instead of saying "chlorhydrate of ammonia," we say "chloride of ammonium." He does not mean to say that the advantages of the bromhydrate have all been proved, as the facts as yet are not numerous enough; but he is inclined to believe that several of these advantages really exist. It is not certain yet that the bromhydrate irritates the stomach less than the sulphate, but it is certain that its action is more energetic. This superiority is probably due to the bromine, "which plays the part of acid." M. Mialhe also believes that the bromine of the bromhydrate would be found in the blood as an alkaline bromide, and that its effect is sedative. But the bromine is in so small a quantity that the effect produced must be very slight. In this view Prof. Gubler cannot agree. The organic medium changes chemical conditions. We are well aware that when we combine the sulphate of the peroxide of iron and carbonate of soda we produce carbonate of the peroxide of iron; but in the blood the medium is albuminous, and the combination of these substances does not furnish the same apparent result. The chemistry of the laboratory is not the chemistry of the interior of our organs. In view of the apparent superiority of the bromhydrate over the sulphate, these properties are more probably dependent upon the bromhydrate as a *total* than on the supposed separate bromine. The chloride of sodium possesses neither the properties of chlorine or soda, and it is the same with bromide of quinine.

Dr. Jacobi on Masturbation in Children.

At a meeting of the New York Medical Library Association (reported in the *Record* for December 4), Dr. Jacobi read a paper "On Certain Points connected with the Nervous System of Children," which principally related to the effects produced in them by masturbation.

Cases have of late been published, he observes, tending to show that irritation about the genital organs of children exerts a very widespread reflex influence, so that instances of paralysis have even been said to have arisen solely from an adherent prepuce. But such cases have been too imperfectly reported to allow of any such conclusion, nothing having been said in their histories about the habits of the children, and whether, in consequence of the irritation produced in the glans penis, masturbation existed. It is to be observed, however, that in many of these cases post-mortem examination has shown that there was no reflex disease, but actual spinal neuritis, or even myelitis; and it is probable that this is the case with a large number of cases of so-called reflex disease.

The results of masturbation are the same in infancy and childhood as in the adult, as far as the languor and general irritability of the nervous system are concerned. The children are irritable, and frequently a little bloated; manifest the peculiar shyness; and have a sallow skin, the sebaceous follicles of which are highly developed, especially about the face. When the habit has been continued for some time, there are enlargement, redness, and irritation of the genital organs in either sex. The habit is always induced by irritation, which may be entirely external or internal. The former, especially in boys, may arise from direct irritation of the genitals by nurses or servants; and in boys of seven or eight years of age it may be induced by riding on horseback, or by their having been breeched too early. The genitals, which were formerly kept cool, now become over-heated, the sudoriparous glands of the region being more or less stimulated, so that considerable moisture is generated. When the boy wishes to urinate, also, it often takes him a long time to get the penis in position. Sleeping in hot feather-beds and sitting on soft sofas are also injurious. All these things have more to do with the production of the habit than most persons are aware of.

Dr. Jacobi speaks as follows of local irritation arising from anomalous development, such as adherent prepuce:—

"In determining to what extent such an effect follows such a cause, it should be stated that in fœtal life the prepuce is very adherent to the glans. A large number of new-born children exhibit a continuation of the adherent prepuce. As long as it is adherent uniformly for one-fourth or one-third its entire extent, it is probable that no harm will follow. But in those cases where the agglutination is prolonged, and pouches are formed behind such adhesion, where copious collections of smegma may easily occur and get rancid, and urine collect and get acid, a local irritation of the glans will result, and give rise to repeated attempts on the part of the little sufferer to get rid of the irritation by pulling at the organ—and in this way the habit of masturbation may be contracted. The same thing may be said with regard to the vaginal canal, when as a local irritation we have a leucorrhœal discharge, which is of such frequent occurrence in little girls. It is the irritation behind the leucorrhœa that gives rise to the habit."

Among other causes of local irritation that were enumerated were worms in the rectum, exposure to local cold, and the use of coarse sponges or towels. Catarrh of the bladder and urinary and renal calculi are other sources of irritation. Certain medicinal substances also produce great irritation of the kidney, which requires watching. Nitrate of potash and chlorate of potass are examples, and especially the latter, which is much employed.

As to the treatment of masturbating children, they must be controlled, and frequently forced. Circumcision is essential. Sometimes simple constipation is the sole cause. The children should be well employed, and not put to bed until the time arrives when they should go to sleep; and they should be got up early, put in a bath, dressed, and set to work at once. Bromide of potassium is of service during the intervals of sleep, as also in procuring sleep, and alkalies may be used for the relief of what little catarrh of the bladder may exist. In diminishing the general irritability of the parts, lupuline and camphor are of service. Strychnia will be beneficial in many cases, as it is a generally useful remedy in all forms of nervous disease caused by masturbation, whether general or local, and marked either by symptoms of partial paralysis or of irritation. Hypochondriasm occurring in children is probably always due to masturbation, and epilepsy and chorea have been produced by the practice. Local symptoms of debility are essentially those of more or less localised paralysis; but symptoms of local irritation are much more frequent. A peculiar *hysterical cough*, such as is heard in hysterical females, is occasionally heard among boys and girls, and in a large number of cases can be traced to masturbation as its cause. *Hemicrania* is not infrequently found, as a result of self-abuse, as well developed in children eight or nine years of age as in the adult. Iron and belladonna are serviceable in its treatment. Another symptom occasionally found in children six or seven years old is *neuralgia about the joints*. The knee is very frequently involved, especially at the inner condyle; also the styloid process of the ulna, and very frequently the spinal column. Excessive masturbation is not infrequently the cause, and strychnia is of use as a stimulant of the nervous centres. *Hysterical paralysis* is also met with in children from five to ten years of age.

In the discussion on the paper, Dr. Leaming observed that *incontinence of urine* is a symptom in children given to masturbation; and in some of these cases the application of caustic to the prepuce or clitoris, so as to make them only a little tender, has been attended with great benefit. A change from a stimulating animal diet has been attended with good effects, and enabled the habit to be more easily managed. When a child having this habit has been admitted among other children, the closest watching is required to prevent its spreading among these. In reply to a question as to how long after birth the phimotic condition of fœtal life persists, Dr. Jacobi said that it may remain for months, and sometimes for years. In a very large percentage of those circumcised the operator is obliged to tear a portion of the prepuce from the glans. When the agglutination is simply epithelial, it will usually remove itself within a few months, or at most a few years. Dr. Messenger regarded the detrimental effects of feather beds and cushioned chairs as being far too much overlooked in the management of children.

Last week, the wife of a carpenter residing at Hastings gave birth to female twins who were united by a band of flesh at the breasts. They were well developed, but did not survive their birth.

Our contemporary the *Pall-mall Gazette*, of the 5th inst., reports that a general congress of the women of Germany has been held at Gotha. Addresses were delivered, calling on German women to unite and struggle for their rights, especial reference being made to the practice of medicine.

REVIEWS.

The Anatomy of the Lymphatic System. By E. Klein, M.D., Assistant-Professor at the Laboratory of the Brown Institution, London. II.—The Lung. London: Smith, Elder, and Co. 1875.

This volume is the second part of Dr. Klein's work on the Lymphatic System, and contains an account of the normal and morbid anatomy of the lymphatics of the lung and pleura, with special reference to tuberculosis. In our notice of the first part of the work, in 1874, we drew attention to the magnitude of the author's undertaking, and to the remarkable additions made by him to the scientific anatomy of the abdominal lymphatics in health and disease. The present volume cannot fail to excite even wider interest than its predecessor, containing as it does a detailed exposition of the anatomical basis of pulmonary phthisis. For we make bold to say that this is all but unknown to nine-tenths of those who are daily called upon to consider the prevention and treatment of the disease, and is scarcely more familiar to the multitude of specialists that have worked at, and written upon, consumption. We will therefore attempt to make this notice analytical rather than critical, and to furnish as intelligible an abstract of the contents of the volume as our space will permit.

The first section treats of the normal conditions of the lymphatic system of the lung and pleura. The pleural cavity, like the peritoneal (as the reader already knows), is in direct communication with certain of the lymphatics that underlie it;—the lymphatic spaces of the pulmonary pleura drain, by vertical channels with open mouths or stomata, the great serous cavity that surrounds the lung. Starting accordingly from the pleural surface, Dr. Klein works inwards upon the lung. The epithelium (or, as it is now generally called, the endothelium) of the pulmonary pleura is different from that of other serous membranes, for the cells are flattened in the inspiratory condition only of the lung, and become polyhedral or even columnar (at least in the guinea-pig) in expiration.

The matrix of the pulmonary pleura is a delicate membrane with three important elements—connective tissue, muscular fibres, and lymphatic structures: and, as it is covered by the endothelium, and continuous beneath with the walls of the superficial alveoli, so its lymphatics freely communicate, on the one hand with the pleural cavity (as we have just seen), and on the other with the superficial branches of the proper pulmonary lymphatics. The unstriped muscular fibres which extend in slender bundles over the free surface of the lung of the guinea-pig, and probably less abundantly of many other animals, are here described for the first time. It is not easy to exaggerate the importance, physiologically, of this discovery; the probable function of the muscles will be immediately discussed. Within the meshes of the muscular bundles, and between the fasciculi of the connective tissue, lie lymph-spaces and lacunæ freely communicating, and constituting the lymphatic radicles of the pleura proper.

Passing now to the examination of the lymphatic vessels of the lung itself, we find that they are disposed in two systems as follows:—1. The lymph-radicles of the *alveolar walls*, represented as usual by connective-tissue spaces or *Saftkanälchen*, end in closed vessels which take either of two directions according to their situation. The superficial ones or *subpleural lymphatics* form a network, the efferent branches of which run along the pulmonary ligaments towards the root of the lung; these drain also the pleural lymph-spaces which we have just described. 2. The deep vessels from the alveolar walls are called *perivascular lymphatics;* they remain in the substance of the lung, and accompany the bloodvessels to the root. The lymph-radicles of the *bronchial wall*, represented by connective-tissue spaces, terminate in true vessels, which form in the outer coat of the bronchus a network of *peribronchial lymphatics*, and fall into the perivascular. Thus the walls of the bronchi and of the vast majority of the alveoli are drained by the perivascular lymphatics; while the quite superficial alveolar walls, the pleura, and the pleural cavity are drained by the subpleural vessels, which pursue a totally different route towards the lung-root. Three other facts of extreme importance remain to be noticed—1. That the deep or perivascular system communicates with the superficial or subpleural, not only through the radicles on the superficial alveoli, but by special vertical branches with distinct walls and without valves. 2. That the cavity or free surface of the alveoli and bronchi does not, like the pleural, communicate with the underlying lymph-radicles by open mouths or stomata, as some histologists maintain, but by peculiar inter-epithelial solid structures, or *pseudo-stomata*, with a corresponding (surrounding) space. 3. That, as Burdon-Sanderson described, the smaller bronchi normally contain lymph-follicles upon the walls of their lymphatic vessels, analogous in every respect to the tonsils and Peyerian and lymphatic glands.

The effect of the respiratory movements of the lung upon the lymph-stream will now be intelligible. The action of the pleural muscular coat stands in a direct relation to lymphatic absorption from the pleural cavity. The enlargement of the intermuscular lymph-spaces during inspiration will dilate the communications with the pleural cavity and exert a pumping action upon its contents; while in the following expiration these will be driven, by the collapse of the spaces and stomata, into the subpleural vessels. The absorption of morbid products into the lung in this way is obviously a fact of the very greatest significance.

The second section is devoted to the pathological anatomy of the lymphatic system of the lung and pleura; and it is almost unnecessary to say that the correct interpretation of the morbid appearances of these parts entirely depends upon a clear understanding of the normal. In acute pleurisy the endothelium of the pulmonary pleura proliferates, especially around the stomata, and into these can be traced bands of fibrin from the free surface, as if in the condition of being pumped in. In chronic pleurisy a similar proliferation takes place.

A considerable amount of space is of course occupied with a description of the lung of the guinea-pig in artificial tuberculosis. The reader may be reminded that Burdon-Sanderson described the principal appearances that are found in this condition as two,—small grey disseminated granulations, and areas of continuous induration: there being no essential difference between the two forms of lesion. The granulations, according to him, are much more abundant under the pleura, but occur also in the neighbourhood of the bronchi as hyperplasiæ of the normal. Commencing always in the immediate neighbourhood of a minute bronchiole, the growths spread thence to the alveolar walls, and cause an accumulation of epithelial products in the alveoli. Thus the diseased tissue is converted into a compact mass of cells, part of which represent adenoid overgrowth, and the others intra-alveolar epithelial products. Finally, the whole mass undergoes a fatty or cheesy change. Wilson Fox agreed so far with Burdon-Sanderson in describing a peribronchial and inter-alveolar growth, but did not mention an intra-alveolar epithelial accumulation; on the other hand, he added an account of a perivascular growth,—an accumulation of the cells lining the perivascular canals. Dr. Klein, having stated the previous views, proceeds to give the results of his own investigations. He describes various kinds of granulations, and his conclusions may be thus summarised:—The granulations of an artificially tuberculosed lung (where the bronchial glands are cheesy) may be distinguished as—1. Nodules in the bronchial wall, simple hyperplasiæ of the normal lymphatic follicles, and late to caseate. 2. Cord-like structures (nodular on section), essentially perivascular in situation, developed on the lymphatic sheath around the minor branches of the pulmonary artery from lymph-corpuscles and white blood-cells, which have found their way thither, and grow either within or without the lymphatic vessel. 3. Conical or irregular nodules—patches of catarrhal pneumonia and lymphatic growth, which join at their deep extremity the perivascular cords just described, and at their superficial end or base the cords of lymphatic tissue, into which the subpleural lymphatics have become changed; the catarrhal-pneumonic products are epithelial in origin, and include giant-cells. These superficial nodules are covered by a patch of thickened pleura. Such are the three principal forms of granulation to which Dr. Klein attaches importance; and the relation of the second, or perivascular, to the third, or pneumonic, is especially described. Dr. Klein believes that the appearance of the perivascular cords forms the earliest symptom of the process of artificial tuberculosis, beginning, perhaps, in the proliferation of the endothelium of the ultimate branches of the pulmonary artery; and that it is the extension of such perivascular growths into the alveolar walls that gives rise to the changes of the alveolar epithelium. The last stage in the process is caseation, which starts from the intra-alveolar products, and advances to the formation of cavities.

The last chapter contains an account of the results of the examination of certain specimens of acute miliary tuberculosis of the lungs of man. Dr. Klein believes that all cases of acute miliary tuberculosis have at first the characters of desquamative pneumonia—"tubercles of the first series." But many go on to the development of giant-cell tubercle by the absorption of the fibrinous exudation and the substitution for it of giant-cells—"tubercles of the second series." When this occurs, the alveolar walls become infiltrated with the inflammatory products, the vessels are blocked, a lymphoid growth occurs, and giant-cells, developed from the epithelium by fusion, replace the intra-alveolar exudation. Dr. Klein believes that in natural tuberculosis, as in the artificial form, giant-cells may grow from epithelial cells by fusion, or from leucocytes. And here, also, as in artificial tuberculosis, peri-vascular and peribronchial granulations occur.

The reader will have observed in every sentence of this review that fresh discoveries have been made by Dr. Klein, anatomical, physiological, and pathological, in many parts of the lung. It is with legitimate satisfaction that we record the further share which England has contributed, in the shape of this volume, to the researches which have been made on tuberculosis, for the last twenty years, so much more extensively, if not with greater success, on the Continent than in this country. The plates, which form an important feature of the work, are among the finest illustrations of histological appearances that we have ever seen.

A Biennial Retrospect of Medicine, Surgery, and their Allied Sciences, for 1873-74. Published by the New Sydenham Society. Pp. 557. 1875.

The Biennial Retrospects issued by the New Sydenham Society have deservedly attained a high position in the estimation of those who wish to keep *au courant* with the progress of medical and surgical science. The present volume, like its predecessors, is divided into eight sections, as follows:—I. Physiology, edited by Henry Power, F.R.C.S., M.B. Lond.; II. Practical Medicine, by A. B. Shepherd, M.A., M.B., M.R.C.P.; III. Surgery, by Waren Tay, F.R.C.S.; IV. Ophthalmology, by R. Brudenell Carter, F.R.C.S.; V. Midwifery and the Diseases of Women and Children, by C. H. Carter, B.A., M.D. Lond., M.R.C.P.; VI., VII. and VIII. Medical Jurisprudence, Materia Medica, and Public Health, by Thomas Stevenson, M.D. Lond., F.R.C.P. The names of the editors of the various reports may be taken as a guarantee that the reports have been very carefully prepared; but it will be readily understood that in a work which is the joint production of several authors it is more than probable that different degrees of excellence will be met with. This is very apparent in the present volume. It would not be strictly correct to say that any one of the reports has been carelessly prepared; indeed, it is sufficiently manifest that in each the editor has taken a great deal of trouble in consulting recent authors and the current literature in order to present a really valuable report to the subscribers. At the same time, it is, as we remarked before, very apparent that the reports exhibit different degrees of excellence. Decidedly the most complete and thorough report is Dr. Shepherd's on Practical Medicine: no source, English or foreign, from which anything of value could be gleaned appears to have been overlooked; but in one or two of the other sections the researches of the compiler have apparently been confined to a much narrower field. Whilst fully recognising the value of Mr. Nettleship's report to the Local Government Board on ophthalmia in the pauper schools of the metropolis, we have doubts as to the wisdom of the editor of the section on ophthalmology in reproducing so much thereof as to occupy more than one-third of the limited space devoted to this branch of surgical science.

Taken as a whole, the work is a very valuable one; and although here and there we have observed a few shortcomings, it will not suffer to any serious extent by comparison with the "Biennials" of former years.

The Meteorological Society.—At the ordinary meeting of this Society, to be held (by kind permission of the Council of the Institution of Civil Engineers) at 25, Great George-street, Westminster, on Wednesday, the 16th inst., at 7 p.m., the following papers will be read:—"An Improvement in Aneroid Barometers," by the Hon. Ralph Abercromby, F.M.S.; "Meteorology in India in relation to Cholera," by Colonel J. Puckle, M.S.C.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, January 23.

M. Tillaux's Clinique: Removal of a large Fibro-Enchondroma from the Pelvic Cavity of a Man, who had also, at the time, Syphilitic Rupia on one Thigh; Removal of a Cherry-Stone, which had been in the Nostril of a Woman for twenty years—Professor Sée on Empiricism and Scientific Therapeutics—Death of Dr. Caffe.

In continuation of M. Tillaux's clinique, I beg to submit the following notes on other operations performed by that able surgeon at the Lariboisière Hospital. A man, aged forty-five, was recently admitted into M. Tillaux's ward for an enormous tumour of the pelvis of about twenty years' growth. It was situated behind the rectum, and occupied nearly the entire cavity of the true pelvis, pushing the rectum and bladder against the pelvis, and bulging out by the side of the right nates. The diagnosis as to the size of the tumour was most difficult, as the finger in the rectum could not reach its uppermost limit; but it was evidently not of a malignant character, as its growth was remarkably slow, and the patient was comparatively in good health. He applied for its removal, owing to his inability to remain in the sitting posture for any time, and to the extreme difficulty he experienced in the act of defæcation. The rectum was so pressed upon that the calibre of the fæcal matter that passed through it was not greater than that of a tapeworm, and the patient likewise suffered from incontinence of urine from the pressure of the tumour on the bladder. Under these circumstances the patient was obviously doomed to death, and nothing but a surgical operation could have relieved him from his perilous position. He was placed in the lithotomy position, and while under the influence of chloroform a rectangular flap was formed, extending from the right tuber ischii to the anus, which was thrown backwards, and the tumour was removed through the opening left by it. The incisions were made with the galvano-caustic, which caused scarcely any hæmorrhage. The tumour was a fibro-enchondroma, and consisted of two lobes, each about the size of a man's fist, and united together by a pedicle which was attached to the coccyx. This is certainly a splendid example of the utility of surgery.

There is one circumstance in connexion with this patient that deserves to be noticed. At the time of the operation he was the subject of syphilitic rupia on the fore part of the right thigh; and on questioning M. Tillaux as to the propriety of performing such an operation on a syphilitic patient, he replied that as the operation was urgent it would have been homicidal to wait till the man got cured of his syphilis—that is, of his syphilitic diathesis—as that event never takes place; for, although the local lesions may heal up, yet the patient will not only carry the cicatrices and the general affection with him to the grave, but it will be transmitted to his offspring, even unto the third and fourth generation. In the present case, however, M. Tillaux put the patient under what is termed by the Paris school the "mixed treatment" of syphilis, and the formula generally adopted is that prescribed by M. Gibert, the celebrated dermatologist, and is composed as follows:—Biniodide of mercury, one gramme; iodide of potassium, fifty grammes; water, fifty grammes. Dissolve the salts in the water, and strain the solution, then add simple syrup (cold) 2400 grammes. The dose is a tablespoonful. As this quantity represents twenty-five grammes of the syrup, each tablespoonful will therefore contain one centigramme of biniodide of mercury and fifty centigrammes of iodide of potassium. This mixture, known by the name of Sirop-Gibert, is the favourite hospital remedy for syphilis in all its stages, and is preferred to the pills of the proto-iodide of mercury prescribed by the father of French syphilographers, M. Ricord, as a more manageable and safer preparation.

On the same day of the operation noticed above, M. Tillaux removed a cherry-stone from the nostril of a woman aged sixty-four, where it had remained for nearly twenty years. As the history of this case is somewhat curious, I shall give a short account of it for the benefit of your readers. Before presenting herself at the Lariboisière Hospital, the patient—

as is frequent in such cases, where, from error of diagnosis or apparent chronicity, the malady is considered incurable—had gone the round of the hospitals and a host of private practitioners, and, strange to say, no one detected the presence of the foreign body in the nostril. The consequence was, the poor creature was treated for ozæna, which of course was the most prominent symptom; but all were mistaken as to its real cause. Some looked upon it as a scrofulous rhinorrhœa, while others put it down to the syphilitic taint; and the patient was of course submitted to the treatment generally adopted in one or other of these affections. M. Tillaux himself had fallen into the same error, and although there was no other sign of syphilis or scrofula, whether old or recent, M. Tillaux, like most of his *confrères*, gave the patient the benefit of the doubt, as is done in criminal cases, being convinced that if she is not scrofulous she must be syphilitic; and, accordingly, she was subjected to what is termed the specific treatment for syphilis. The patient had been nearly six months in hospital undergoing this treatment, without any improvement in her condition. From time to time M. Tillaux examined the nostril with a probe, and felt the foreign body, which, however, he mistook for dead bone. Eventually, the foreign body became movable, which induced M. Tillaux to attempt its extraction, which he succeeded in effecting with a pair of dressing-forceps. The instrument brought away a body about the size of a large pea, as black as coal, of an irregular shape, and of a most offensive odour; but M. Tillaux having observed that it was heavier than a bit of bone of that size, was puzzled as to its real nature. With a fine saw he cut the body in two equal halves, and, to his great surprise, he found that it was nothing more nor less than a common cherry-stone. How it got into the nostril was another question. The patient denied having introduced it, and could not say when and how it got there. M. Tillaux suggested that in eating cherries some people swallow the stones as well, and the patient was probably one of those gluttonous creatures. It may be that in the present case, in the act of deglutition, the stone attempted to "go down the wrong way," as it is vulgarly expressed; and the patient, by an instinctive movement, coughed up the stone, which instead of escaping by the mouth, was forced up the posterior nares, and there took up its abode until its forced removal. It need hardly be said that from that day forth the patient's condition rapidly improved, and she left the hospital a week after the operation with her nose as well as if nothing had happened to it.

I have frequently had occasion to refer to Professor Germain Seé's capacity as a clinician and therapeutist. He combines both these qualities in a manner rarely to be met with in others, for he is as thorough a clinician as he is a therapeutist—so much so, that it would be difficult to say in which he excelled. Before his nomination to the Professorship of Clinical Medicine, he occupied the chair of Therapeutics at the School of Medicine; and although officially holding the former appointment, he has never ceased to teach therapeutics even at the hospital, without, however, sacrificing one for the other. Some fastidious people have blamed M. Sée for his uncalled-for zeal in teaching therapeutics whilst there is a professor for that branch at the School of Medicine; to which M. Sée replied that it was impossible for one professor, however able he may be, to do justice to such a comprehensive and difficult subject in the short time allowed him. Moreover, he added, he observed with grave concern that, without in the least reflecting on the Professor of Therapeutics, this most interesting branch of medicine has considerably fallen off at the Paris Faculty, as is daily proved at the examinations, whether for the doctorate, hospital physician or surgeon, or the office of *agrégé* or sub-professor. Not very long ago, at a *concours* for the aggregation in surgery, Professor Richet, President of the Examining Board, in his report to the Minister of Public Instruction, officially stated, with reference to the result of the examination:—"We have noticed that the candidates have displayed a vast amount of erudition; that in the theses, which were remarkable in many other respects, the subject-matter occupied several pages, whereas only one page was devoted to therapeutics; and in their lecture, which lasted one hour, the treatment of the disease on which they had to discourse only lasted five minutes." Professor Chauffard, who was president of the *concours* in Medicine, made a statement much to the same effect; and Professor Sée, in his opening lecture for the winter session at the Charité Hospital, publicly made a similar statement. For my part, I have noticed that, in general, French practitioners are lamentably backward in therapeutics—at least, in the practical part of it,—and whether it arises from ignorance or scepticism, or both, it is not for me to say; for, however strange it may appear, it was well known that one of our greatest modern therapeutists, the late Professor Trousseau, was also a great sceptic.

In the lecture just referred to, Professor Sée announced that, while the Professor of Therapeutics at the School of Medicine devoted his teaching to the theoretical part of that branch of medical science, he never meant to usurp the functions of the latter, but simply to complete the study at the bedside of the patient; he therefore proposes to give the title of "Clinique Thérapeutique" to his course of lectures.

After a few general remarks on the importance of a thorough knowledge of therapeutics in its application to practice, M. Sée curtly asks the question, "What is therapeutics?" In this branch of medicine, continued the Professor, there are two things to be considered: the science of medicaments, and the history of medicaments. "It is not natural history, physical or chemical, but pure physiological history applied to the treatment of diseases, or, in other words, the history of a medicament taken in a dogmatic sense, and which may be applicable to such and such a disease." M. Sée did not intend to go through all the substances named in the Materia Medica, but he would merely select some thirty or forty of the principal, which would be quite sufficient for all practical purposes. Having obtained a knowledge of the physiological and pathological history of drugs, the physician may be considered well armed, but on his way onwards he soon meets the enemy: disease. But before treating disease the physician must make himself acquainted with its mechanism. The next question that suggests itself is: "What is a medicament?" Without defining what it is, the learned Professor remarked that nothing appears easier than to give a definition: "That which cures," is the simplest reply. For certain practitioners nothing is easier than the treatment of disease. According to them, all a physician had to do when called upon to treat a disease would be to recall to mind the name of the medicament reputed as its proper remedy, and apply it to the case, without reference to other concomitant circumstances which ought to be taken into consideration when a disease is treated on scientific principles. This, M. Sée declared, was pure empiricism, and is to this day the rule of practice of most practitioners. He then waged war against so-called "specifics," which are officially recognised even at the Academies, for almost every year a prize is offered for the discovery of a specific for such and such a disease. This accounts for the origin of "antiseptics," "anti-putrids," or "anti-putrescents" (salicylic acid, carbolic acid, hyposulphite of soda, etc.), reported to destroy virus, venom, ferments. In typhoid fever, which is known to be a specific disease, we meet with physicians who prescribe carbolic acid or salicylic acid, convinced as they are that these agents kill the virus that causes the fever. So it may be said of syphilis and mercury, intermittent fever and quinine, scrofula and iodine. But there are no "specifics," cried the Professor; there are specific diseases, but no specific remedies. The conclusion to be arrived at is that in the treatment of disease the medicament should be considered in its relation to the organism, and not to the disease itself; in other words, to obtain a correct notion of this principle, the physician must bear in mind the physiological and pathological action of the remedies or agents employed.

It is with the most profound regret I have to record the death of Dr. Caffe, principal editor and proprietor of the *Journal des Connaissances Médicales Pratiques et Pharmacologiques*, in the seventy-fourth year of his age, which took place on Wednesday, the 19th inst., at his residence in Paris. The deceased gentleman had been ailing for some time from a pulmonary affection—indeed, he had never been well since the death of his only daughter, which took place in childbed about two years ago. Dr. Caffe was a native of Savoy, but he was in heart and soul a thorough Frenchman. He was a handsome man, and a fine specimen of a physician. About a quarter of a century ago he was one of the leading practitioners in Paris, and, although not an academician, he was member of several learned societies in and out of France. It was only at the beginning of this year, finding his health failing him, he made his journal over to Dr. Cornil, his son-in-law, and who is reputed to be one of the leading histologists of Europe. Dr. Caffe was also a great literary character, and he leaves behind him several works of great importance. He was a great advocate of cremation, and had written volumes on

the subject long before the question was agitated in England; but whether it has been carried out or not in his own case I am not prepared to say. According to his special desire, his body was removed to Chambéry, his native town, to be interred in the family vault.

GENERAL CORRESPONDENCE.

IS SKATING INJURIOUS TO WOMEN?

Letter from Dr. J. H. Aveling.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your correspondent "Inquirer" has raised a question of some importance relative to the well-being of girls and women, and I have much pleasure in giving him the result of my experience. I have for some years had under my care at intervals a young lady suffering from scanty and irregular menstruation, spots on the face, constipation, languor, and general debility. About six months since her father erected a private rink at the back of his house, upon which she has skated every day, sometimes fatiguing herself extremely. The result has been most satisfactory. All the functions have become normal, the spots have disappeared, and the general health and strength have become quite satisfactory. I skate on wheels myself, and have carefully watched the influence of the exercise upon the positions and muscular actions of the body. I believe this exercise to be not only compatible with the health of women, but to be such as is best fitted for their peculiar organisation. The motion is easy and flowing; no sudden exertion is required; and, except in case of accident, the body is not subject to rough jolting or concussion.

There is an element of danger in every popular sport and pastime. Hunting and football have their victims every year, and it is better that it should be so than that we should by extreme precaution lose physical courage and become an effeminate race. Every year the number of rink accidents, in proportion to the number of skaters, will decrease. The accomplishment will be learnt earlier in life—at a time when falls are of little importance. It is wonderful that a great many more accidents do not occur when we observe on every rink persons of ripe years and fragile bones endeavouring for the first time in their lives to master the fascinating art.

Of course it must be admitted that abortion, dislocation of the womb, fracture of the coccyx, etc., may happen to women in consequence of falls from whatever cause; but in spite of these drawbacks, I believe rink-skating is banishing a host of female complaints due to inaction, and that it will remain a popular and useful recreation, unchecked, like railway-travelling, by occasional accidents.

I am, &c., J. H. Aveling, M.D.

THE BIENNIAL RETROSPECT OF THE NEW SYDENHAM SOCIETY.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by your allowing me to call the attention of the Council of the New Sydenham Society to the very defective execution of the "Report on Surgery" in this volume: although occupying nearly 150 pages, it consists almost exclusively of extracts and abstracts from English journals and transactions, your own pages contributing a very liberal quota. I do not believe that there are above half-a-dozen articles from French or German journals, those from the American being somewhat more numerous, as they are also much easier of execution. This, I submit, is a very poor result for the elaborate organisation of a publishing society to achieve, and a very different one from that which the subscribers have a right to expect. It seems to me that in place of presenting their readers with extracts (and sometimes long ones) from publications that are largely circulated at home, and may always be easily seen, the object of the Society should especially be to furnish them with a good digest of foreign literature (without neglecting to notice anything of real importance that has occurred amongst ourselves) which it is difficult, or even impossible, for practitioners to obtain a knowledge of, except by some such mechanism as this. That this is also the opinion of others may likewise be seen by the different mode in which the other reports in the volume are executed. Perhaps that on Physiology ignores a little too much what has been done in England; but the reports on Ophthalmology, Midwifery, Medical Jurisprudence, Materia Medica, and Public Health succeed in giving a tolerably complete account of what has been done both at home and abroad. The report, however, which I would point out as a model of what should be aimed at, is that on Practical Medicine. It is well-nigh exhaustive, embracing British and foreign periodical literature, not only by means of elaborate analyses of an immense number of articles, but by the addition of some thousands of references, enabling those who are in search for information on any subject to know where to find it. I much question whether any article of the slightest importance has appeared during the past two years in the whole range of the literature of Practical Medicine which is not here recorded. Of course, devotion like this is not to be expected from every reporter; but it is very mortifying to turn from a piece of work so executed, to the perfunctory performance I am remarking upon. As the Reports on Surgery of the two preceding volumes of the "Retrospect" are characterised by a similar mode of treatment, I think it is high time to ask the Council whether this is a satisfactory state of things.

I may mention that, having many opportunities of hearing opinions on the subject, I find that the management of the Society does not, in some respects, give general satisfaction. Complaints are made of the great delays that take place in publication, and of the singular choice that is sometimes made of books for translation. I am, &c.,

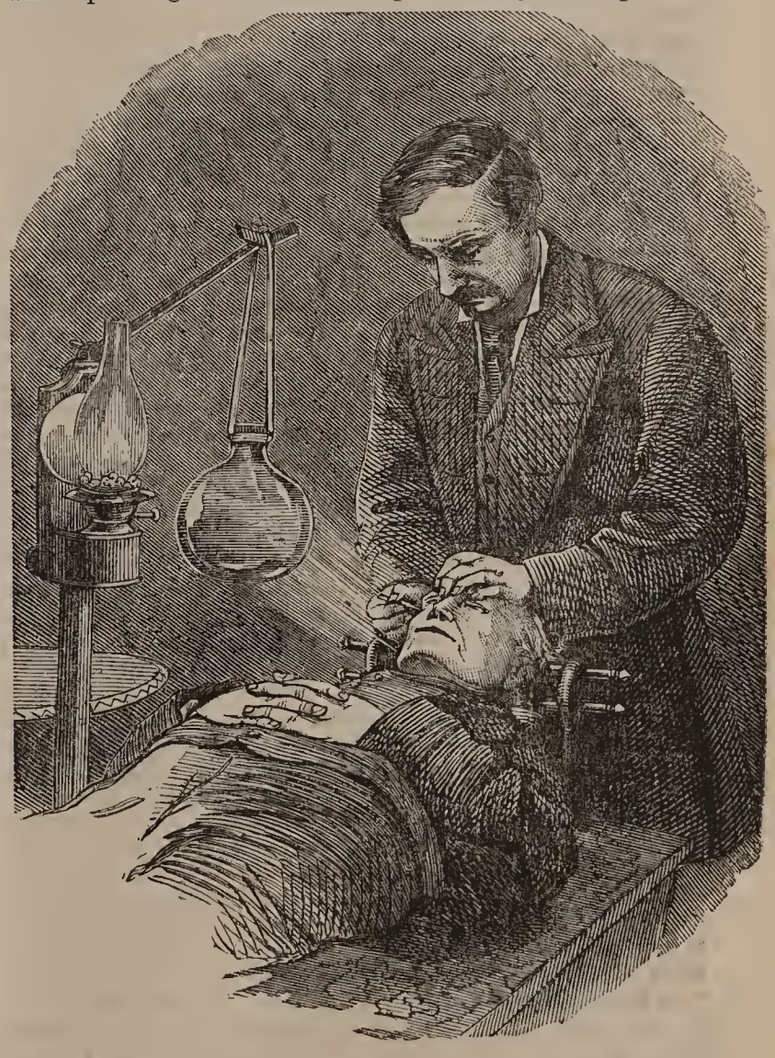
January. An Observer.

ILLUMINATION FOR EYE OPERATIONS.

Letter from Dr. C. Bell Taylor.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to call the attention of your readers to a method of illumination which I have found exceedingly useful when operating for some months past. As you will perceive



by the accompanying woodcut, the light of an ordinary lamp is passed through a globe bottle filled with water and focussed on the spot we wish to light up. In this way we obtain a

column of light, about three inches in diameter, of great brilliancy, quite equal to the best daylight, and far superior to the operating-lamps which are generally used for the same purpose, and which, in my experience, are apt to be misdirected by assistants, to explode, and to ignite the vapour of ether when that anæsthetic is used. The patient I introduced last week to the members of the Clinical Society, who had undergone extraction for cataract, and recovered with central and active pupils, had been operated upon by artificial light. In fact, the most delicate manipulations may be confidently undertaken at any hour with this simple apparatus, which is at hand in every house. I am, &c.,

CHARLES BELL TAYLOR, M.D., F.R.C.S.E.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 25.

JOHN MARSHALL, F.R.C.S., Vice-President, in the Chair.

ON THE PREVALENCE AND FATALITY OF NERVOUS DISEASES. DR. ALTHAUS read a paper on the above subject, illustrated by numerous tables and diagrams, which was based on an analysis of the reports of the Registrar-General from 1838 to 1871 on the mortality from nervous diseases. The author remarked that a notion was now prevalent that nervous diseases, and more particularly paralysis and insanity, had for some time past been on the increase, in consequence of changed condition of life; but that such a notion was at present entirely unsupported by facts. It was not known whether nervous diseases occurred in a certain definite proportion, or varied perceptibly from one period to another; what place they occupied in the general mortality of the nation; whether men were more subject to them than women, and at what age they were most murderous; whether large towns were more suitable for their development than the country; whether the Anglo-Saxon race was more liable to them than other races, etc. These and other problems the author proposed to solve, chiefly by the data contained in the reports of the Registrar-General. He then remarked upon the way in which these reports had been got up, passing a high eulogium upon them generally, and also pointing out certain deficiencies in them, which he said were perhaps inseparable from a work of such magnitude, and beset with so many difficulties in its preparation. Dr. Althaus then proceeded to answer his first question—viz., whether the proportion in which nervous diseases occurred was a steady one, and subject to certain definite laws, to which there were no, or only apparent exceptions, or whether it varied perceptibly from time to time? It appeared from a table, in which all the deaths from nervous diseases, together with the general mortality and the population of the kingdom, had been placed side by side, in periods of five years, that the death-rate from nervous diseases had varied between twenty-six and twenty-eight for 10,000 people during six lustra. The author considered this a very steady rate, taking into account that a census is only held once in every ten years, and that the population of the intervening ten years has to be found by computation, which can never be absolutely correct. When, on the other hand, he compared the deaths from nervous diseases with those from all causes, thus dealing only with a number of separate facts, each of which had been definitely ascertained, there appeared even a greater uniformity in the deaths from nervous diseases, the average for thirty years being 12·26 of the entire mortality from all causes. The author then went on to consider his second question, which was—what rank nervous diseases occupied amongst the more destructive distempers to which mankind was liable? The deaths from zymotic, tubercular, respiratory, and nervous diseases had been placed side by side in a table, from which it appeared that zymotic diseases headed the list with 22·90; after which came tubercular diseases with 15·94; then respiratory diseases with 14·16; and nervous affections with 12·26. It was incidentally remarked that while tubercular diseases had considerably diminished—viz., from 20·04 in 1838 to 13·60 in 1871,—respiratory diseases had as much increased—viz., from 9·09 in 1838 to 15·89 in 1871. Nervous diseases were therefore seen to occupy the fourth rank amongst the maladies destructive of human life. The third question was then discussed—viz., whether the several diseases of the nervous system bore a definite proportion to the sum total of these maladies, or whether they were subject to considerable fluctuations? And whether, in particular, paralysis and insanity, as was commonly asserted, had increased perceptibly within the last decennia? The table drawn up for illustrating these phenomena showed that there had been an increase in the fatality of cephalitis, which term includes all inflammatory diseases of the brain and spinal cord and their membranes, with the exception of hydrocephalus; and also in apoplexy and paralysis, the rise amounting to 2 per cent. for cephalitis, 4 for apoplexy, and 6 for paralysis, as between the first and last lustrum. Delirium tremens, on the other hand, appeared to be on the decline, while for chorea and tetanus again an increase was perceptible. Epilepsy had decidedly diminished within the last ten years, while the mortality from insanity had as perceptibly risen. The greatest fall had occurred in convulsions, or infantile eclampsia, the mortality having been 60 per cent. in the first, and only 42 in the last lustrum, thus showing a decrease of 18 per cent.; and this large diminution in the mortality from convulsions had allowed a rise to take place for other diseases of the nervous system, without causing any perceptible alteration in the mortality from these maladies altogether. In disease of the brain, etc., a rise had taken place; and the several diseases of the nervous system could thus be arranged according to their fatality:—Convulsions, 48·70; apoplexy, 16·19; paralysis, 15·96; disease, etc., 6·98; cephalitis, 6·64; epilepsy, 3·79; insanity, 1·00; delirium, 0·83; tetanus, 0·26; and chorea, 0·10. The fourth question was—whether nervous diseases were, as commonly asserted, more frequent in large towns than in the country, and whether there was any apparent influence of race or climate? A table prepared to answer this question showed the deaths from these diseases in London, the South-Western Counties, and Wales, for a quarter of a century; and the popular notion that nervous diseases were more prevalent and fatal in the great centres of social, professional, and commercial life than in rural districts was thereby proved to be fallacious, for the mortality in London was the lowest, viz., 10·66; that of the South-Western Counties, 11·20; and that of Wales the highest, viz., 15·38. Dr. Althaus concluded from this that excess of manual labour is more exhaustive than that of mental labour; and that the more nourishing and substantial food enjoyed by even the poorest classes in London, as compared with their brethren in the country, seemed to more than compensate them for the advantages the country afforded as far as wholesome air and climate were concerned. The extraordinary difference noted in the fatality of nervous diseases in Wales could, however, not be explained either by density of population, or climate, or difference of occupation, but only by race. It would appear that the nervous system of the Anglo-Saxon race had greater powers of resistance to unfavourable influences than that of the Celtic race, and was better able to bear rude shocks, as well as the ordinary wear and tear of life, with impunity. If this were definitely proved by further researches, more especially concerning the French, Italians, and Spaniards, as opposed to the English, Americans, and Germans, an interesting clue for the political predominance of the Anglo-Saxon race would be furnished. The next question concerned the influence of sex, and it was shown that males were uniformly more liable to die from nervous diseases than females, the average for a quarter of a century being 12·94 against 11·62. With regard to the several diseases of the nervous system, it was found that males died more of cephalitis; that the mortality from apoplexy and paralysis was almost identical for the two sexes; that the proportion for delirium tremens was of one female to eight males; that chorea was more fatal to females than to males; that tetanus killed more males than females; that women were more liable to insanity than men; that infantile eclampsia was much more fatal to boys than girls; and that epilepsy and disease of the brain, etc., were likewise more deadly to males than females. The entire percentages of deaths amounted to 54 for males and 46 for females; thus showing an excess of 8 per cent. for males. The influence of age was shown by a number of diagrams, in which different excursions of a curve marked the variation of mortality in twenty-four different periods of life. An immense maximum was attained in the first year of life; a rapid descent then took place until four years of age; but the number of deaths from nervous diseases during the first lustrum of life was seen to be greater than that of all the

succeeding periods of age taken together. From five to thirty years of age the mortality remained at a low ebb; at thirty-five there was a rise, which became large at sixty, and reached its maximum at seventy; but this second maximum amounted only to about the tenth part of the first maximum attained in the first year, the numbers being 2500 against 25,000. The first maximum was owing to convulsions, and the second to apoplexy and paralysis. The several diseases of the nervous system were then separately examined as far as this influence of age was concerned. The last point considered by the author was the proportion of deaths from delirium tremens in the different divisions of England and Wales. It was found that London headed the list with 100, the South-Eastern Counties followed with 62, the North-Western with 57, the South-Midland with 55, the Northern with 54, Yorkshire with 42, the Eastern Division with 41, the West-Midland with 40, the South-Western with 39, the North-Midland with 36, and last of all came Wales with only 27. Dr. Althaus thought it very significant that London, where nervous diseases were at a comparatively low ebb, should consume proportionately so much more alcohol than Wales, where these maladies were singularly rife; and he asked whether a large consumption of strong alcoholic drinks was really always prejudicial for the nervous system, as had perhaps been too sweepingly asserted by many well-intentioned persons of late years; whether whisky was really "the devil in disguise," and whether alcohol did not in many instances act as a preservative against the invasion of nervous diseases. The author now proceeded to consider the prevalence of these diseases during life as distinguished from their mortality, and remarked that on this point we had definite information only with regard to one disease, viz., insanity, in the reports of the Commissioners in Lunacy. From these it appeared that there were eighty-eight lunatics living to one death from insanity registered by the Registrar-General, and that of five lunatics who died, only one died from insanity, and the other four from different diseases. He thought the prevalence of cephalitis only slightly higher than its mortality; of paralysis he reckoned the living patients as twelve to one death; of apoplexy nothing definite was known in this report; chorea was fatal in one out of a hundred cases actually occurring; in delirium tremens three out of four patients recovered, which would give four cases to each death; in tetanus the proportion was of two deaths to three cases; in epilepsy, which was but rarely fatal, he reckoned fifty living sufferers to one death; of convulsions it was difficult to speak definitely, as the death-rate from them was in the process of changing considerably. Hysteria was very prevalent, but scarcely ever fatal. Dr. Althaus concluded his paper with some remarks on the probability of therapeutics becoming gradually able to influence the mortality from nervous diseases. He saw good reason to believe that convulsive disorders would undergo a further considerable diminution under the influence of improved treatment. Not only for epilepsy and eclampsia, but also for tetanus, recent researches seemed to hold out a prospect of these diseases becoming eventually more amenable to treatment, while chorea was known to kill but rarely. Paralysis, apoplexy, and insanity, however, would no doubt always carry off large numbers of victims as long as the present conditions of our existence, with its passions and sorrows, its troubles and disappointments, continued.

After the reading of Dr. Althaus' elaborate paper, Dr. Drysdale made a few general remarks, whereupon Sir James Paget pointed out that the paper was of such a nature as hardly to admit of discussion save by counter-statistics, and the meeting adjourned.

CLINICAL SOCIETY.

Friday, January 28.

Christopher Heath, F.R.C.S., Vice-President, and subsequently E. Headlam Greenhow, Treasurer of the Society, in the Chair.

New Operation for Cataract.

Dr. Charles Bell Taylor, of Nottingham, introduced patients who had undergone double extraction for cataract, by a method which he had adopted in favourable cases since 1865. The lens, he said, was removed through a small flap, the base of which occupied a position about midway between the horizontal diameter of the cornea and the corneo-sclerotic junction. The wound healed readily. There was no subsequent astigmatism; and, as there was no trace of the operation a few weeks after its performance, the lower section, on account of its greater convenience, was selected. The patients introduced, who were stated to be average examples of successful cases treated in this way, had central and movable pupils; and all trace of the operation was so completely effaced that it was impossible to say whether the flap had been made upwards or downwards, or that the patient had undergone any operation. Dr. Taylor stated that the highest amount of usual acuity obtainable after extraction was secured in this way, some of the patients declaring that they saw as well as ever in their lives before.

Mr. Macnamara said the results of the operation were splendid in the two cases which were exhibited. He thought that excision of the iris was generally uncalled for in the extraction of cataract; certainly in those cases where atropine dilated the pupil. Firstly, if the atropine were applied beforehand, the pupil remained dilated at the time of operation; and secondly, the mere dilatation of the pupil showed that the parts were healthy. But if atropine did not affect the pupil, then iridectomy was of importance. He thought the section in Dr. Taylor's cases was as perfect as could be. With regard to the extraction of cataract, he removed the lens in its capsule, where possible, as being the best way of giving the patient a chance of healthy sight.

Mr. Spencer Watson had had some experience of operating in a manner very similar to the plan advocated by Dr. Bell Taylor; but he had endeavoured to carry the knife upwards and forwards, so as to make the incision vertical through the corneal layers. The incision need not then be so long, and the edges of the wound, as he thought, fell together better. If atropine dilated the pupil, the cataract could generally be removed through a small corneal incision. If there were adhesions, it was desirable to take away a piece of iris. If the lens were fluid, and its cortex tough, it was easy to remove the capsule with the lens; but, in the generality of cases, it was difficult to do so without rupture of the hyaloid membrane, escape of the vitreous, and protrusion of the iris. He congratulated Dr. Bell Taylor upon the results in his cases. He had examined them carefully, and could detect no trace of the operation upon the cornea, except by means of a magnifying lens.

Mr. B. Carter had seen so many of Dr. Bell Taylor's beautiful results that he could quite endorse Mr. Watson's last statement. As regarded the question of the removal of the iris in extraction, the answer should not depend upon the results obtained in a few cases, especially the cases of any single operator. The question was, Did the removal give a larger percentage of success in hundreds and thousands of cases? He thought the removal certainly left the eye in a better position for healing. The risks of subsequent iritis were greater in those eyes in which the pupil did not readily expand to atropine, and the danger was greater in those eyes; but he thought the better practice was to remove a piece of iris in all extractions, as coughing or straining, or other accident, might cause a piece to protrude after the operation. As regarded the optical results, no bad consequences followed. In 1862, he had found a number (twenty to thirty) of old untouched cataractous eyes in a district of Gloucestershire. He had operated with a flap upon one eye, and had performed another operation upon the other. The optical results with iridectomy were never below the standard obtained in the cases without iridectomy; and, therefore, he thought that practice the one which ophthalmic surgeons were most prudent in pursuing

Dr. Bell Taylor thought Mr. Carter's practice opposed to that principle in surgery of the least sacrifice of parts. And, although the iris was not altogether so very important, still it should be saved if possible. The results, he thought, were not so good with as without its removal. But the pupil should not be left in all cases. If hard, or if it should protrude or be bruised during the extraction of the lens, or if any other sinister complication should happen to it, it should then be removed. Still, it was his principle always to save it, if possible. He could have shown to the Society many other cases as good as those exhibited, had the distance from their homes been less.

New Operation for Symblepharon.

Dr. C. Bell Taylor also introduced a patient who had been under his care, in whom was exemplified a new method of treating cases of symblepharon. After the separation of the adherent lid from the eyeball, a thin piece of skin was dissected

from the lid, passed through an incision in the tarsal cartilage, and its raw surface brought into contact with the denuded portion either of the lid or the eyeball itself. In this way the two raw surfaces of the lid and eyeball were prevented from coming in contact until the wound had healed, and the eyeball itself was set free. The transplanted skin was nourished through its base in the first instance, which was denuded as soon as it had taken root in its new situation. It then gradually dwindled, taking the place and assuming the functions of the lost mucous membrane.

In reply to Dr. Broadbent, the author stated that, after a time, the skin came to wear all the appearance of mucous membrane.

Case of Gunshot Wound of the Arm, dividing the Brachial Artery and Median Nerve.

Mr. Christopher Heath exhibited a patient, aged nineteen, whose history was as follows:—He was dragging a gun through a hedge, when the charge passed through his right upper arm from the inner side to the back, without breaking the bone, making two large apertures with inverted and everted edges. When he was brought to the hospital, four hours after the accident, there was no hæmorrhage, and no pulsation below the seat of injury. The hand was cold and numbed, but he could at this time flex the wrist and partially the fingers; he could also extend the wrist, thumb, and forefinger, but not the others. The wound was syringed out with carbolic lotion, and dressed with an oakum pad, and the patient made a good recovery. At the present time, all the parts supplied by the median nerve were paralysed, but he had regained sensation by the parts supplied by the ulnar. Flexion of the hands and fingers was now, however, entirely wanting. Extension remained as at first, *i.e.*, he could extend the wrist, thumb, and forefinger, but not the other fingers. The flexors did not respond to faradism, but contracted to a slowly interrupted galvanic current.

In reply to a Member, Mr. Heath stated that the artery was not tied, as the hæmorrhage had ceased before the patient came into the hospital.

Dr. Althaus had seen a similar case—that of an Austrian gentleman who had been wounded by a bullet in a duel fought on account of a highly popular operatic singer. He (Dr. Althaus) had been consulted by the patient six months after the affair. There was then no anæsthesia nor loss of muscular power in the arm; but there was numbness in the thumb and index-finger, and inability to extend the last phalanx of the thumb. He had improved under treatment.

Dr. Greenhow said the man had certainly improved since the paper was written, two or three months ago. Was it likely that faradisation would still do more for him?

Mr. Heath said there had been great difficulties in the case, because of the great obstinacy of the patient. It was his own fault his arm was not better. A postscript should be added to the paper, stating the condition of the arm after further treatment.

Embolism of Right Posterior Cerebral Artery.

Dr. Broadbent read particulars of a case of embolism of right posterior cerebral artery, with yellow softening of the occipital lobe, producing temporary blindness: left hemiplegia, uncontrollable movement of the right limbs, and rolling tendency: double optic neuritis: death from ulcerative endocarditis. The patient, a young man aged nineteen, had suffered three years previously from acute rheumatism. Ten days before his admission, he suddenly became blind, and had great pain in the head. Five days later, vision having returned, he lost the use of his left limbs, while the right arm and leg were continually in motion; and, unless restrained, he rolled over and over towards the left, falling out of bed and bruising himself severely. The left hemiplegia and uncontrollable movements of the right limbs continued when he was admitted; the hemiplegia not being absolute, but accompanied by slight rigidity and very considerable impairment of sensation. The patient took no notice of persons or objects, but answered questions, and put out the tongue on being urged. His pulse was variable, 120 to 160 or more. Temperature in the right axilla, 99·2°; in the left, 100·6°. A loud mitral systolic murmur was present. The bowels were confined, and, when opened, the fæces and urine were passed in bed. A dose of three grains of calomel was given, and two grains of carbonate of ammonia with two drachms of infusion of digitalis every two hours. Chloral also was given at night. He was ordered a diet of milk and beef-tea, with four ounces of brandy. There was gradual improvement; and, three days after his admission, an ophthalmoscopic observation, previously attempted in vain, was obtained, and the discs were found to present the appearances of marked ischæmia. Pulse now 108, soft, short, and strikingly dicrotous. A day later, the pulse was 88, and more full. The temperature was still nearly a degree higher in the left (100°) than in the right (99·2°) axilla. Slight paralysis of the left external rectus of the eye was observed. At the expiration of a fortnight's stay in hospital, the right limbs were quiet, and there was considerable return of power and sensation in the left side. His speech was rather slow, but there was no obvious impairment of the intellect. Notwithstanding this, however, he not only passed his fæces in bed, but threw them about and bedaubed himself and the bedclothes without any regard to decency. The optic ischæmia was marked, but vision was good. The temperature of the right axilla was 99·3°; of the left, 100°. At the end of three weeks, he passed his excretions naturally. After five weeks, he was up and about, eating well, but pale, and still complaining a little of headache. Impairment of power and of sensation in the left limbs was still perceptible. The optic neuritis was subsiding. Distant vision was good, but small print was not easily read. A systolic mitral murmur was heard. The temperature was still never below 99°; usually 100°; it was now equal on the two sides. But for this elevation of temperature, the patient would have been allowed to leave the hospital. Soon afterwards, however, there were symptoms of splenic embolism, and later of ulcerative endocarditis: and he died from this, four months after admission. On post-mortem examination, with ulcerative endocarditis and numerous recent embolisms there was found softening of the occipital lobe of the right hemisphere from the posterior cornu of the ventricle downwards, and the branch of the postcerebral artery entering the calcarine fissure was occluded and lost in adhesions. It was considered probable by Dr. Broadbent that originally the posterior cerebral artery itself had been blocked up, and not only this branch. The interesting points in the case, on which comments were made, were the temporary blindness, the agitation of the right limbs and rolling tendency, the unusual association of loss of sensation and of double optic ischæmia with embolism of a cerebral artery, and the remarkable indifference to decency persisting when the intellect was apparently good.

Dr. Hughlings-Jackson thought this the most valuable case of cerebral embolism he had heard of. He had never seen the posterior cerebral artery blocked except in cases of syphilis. He had never seen optic neuritis with cerebral softening; but then he had never met with softening in the posterior lobe so long continued. He had seen optic neuritis in cases where there was no cerebral softening. The patient's sight was good for distance, which was a common condition with optic neuritis. The patient's intellect must have been degraded; but with left hemiplegia he thought the intellect was more frequently affected than with right hemiplegia. Diseases of the left posterior lobe do not frequently cause intellectual defects. Had the patient disagreeable sensations which he referred to the epigastrium? because the centres of care, remorse, etc., were referred to the posterior lobe.

Dr. Buzzard had recently seen a case which in one point bore upon this one, viz., in the tendency to roll over to the left. A gentleman had difficulty with his left limbs. He could walk; but, if he were not attending especially to his direction and limbs, he had a tendency to turn to the left. Similarly, in stepping into his carriage, if he did not look attentively at the step, his foot missed it, and he fell. If, with his eyes shut, he attempted to make his two forefingers touch, that of the left hand always went wide of the mark. He had paresis, rather than paralysis. There was an old history of mischief of the right ear. Dr. Buzzard gave a bad prognosis, and ventured to localise the mischief at the back part of the brain or of the cerebellum. The patient died a few months afterwards, when a cyst the size of a walnut was found at the posterior tip of the right hemisphere, in the exact position of the disease in Dr. Broadbent's case.

Dr. Greenfield inquired if the anæsthesia were limited to the limbs, or if it extended to the trunk and face; also if the superficial portions of the cerebellum were examined. In a case exhibited at the Pathological Society, there was softening of the upper part of the right hemisphere of the cerebellum, and the symptoms were paralysis of the left side and convulsive movements of the right limbs. He thought that the rolling

movements might, perhaps, be attributed to affection of the cerebellum of a temporary nature. He referred to another case, in which a gummatous tumour occupied the posterior part of the posterior lobe of the cerebrum, in which paralysis did not occur for some time, and in which there was total absence of the other symptoms found in Dr. Broadbent's case. Often, at the post-mortem examination, there was no embolism found in the portion of hemisphere affected, and no obstruction of the artery originally plugged.

Dr. BROADBENT had not considered the amount of softening found after death adequate to produce the symptoms that existed during life. There was at first, doubtless, a larger portion of brain affected by the embolism. He had never seen hemianæsthesia in the limbs without its being at first, at any rate, in the corresponding half of the body and face as well. There was not the same law in regard to sensation as there was for motion. As regarded the surface of the cerebellum, nothing particular was found there. Dr. Hughlings-Jackson had thought the optic neuritis to be due to long-continued softening; but it was noticed soon after the attack of paralysis —so could not have been due to long continuance in this case, but to the original lesion. Of course, there was intellectual degradation, but his behaviour was the only symptom that showed it. He had apparently no feeling of remorse, nor did he make vague complaints. Dr. Buzzard's case was very interesting. His (Dr. Broadbent's) patient had had to be held in bed to prevent him from rolling off on to the floor. His falls had produced bruises before he came into the hospital. Another patient had had to keep away from the kerb in walking along the street, and near to the wall, so as to correct his tendency to go to one side; for if he went on the kerb he was apt to walk off into the road.

OBITUARY.

SIR DAVID DUMBRECK, M.D., K.C.B.,

DIED at Florence on the 24th ult. He was a native of Aberdeenshire, and born in 1805; was the only son of Mr. Thomas Dumbreck, a collector of inland revenue at Glasgow; was educated at the Edinburgh University, where he graduated M.D., and entered the Medical Department of the Army as Hospital Assistant in November, 1825, and in January, 1826, became Assistant-Surgeon; was promoted to Surgeon in July, 1841, and Surgeon-Major in September, 1847, Deputy Inspector-General in March, 1854, and Inspector-General in July, 1859. For his services during the Eastern campaign, 1854, he was in 1856 nominated a Companion of the Order of the Bath, and made a Knight of the Order of the Médjidie of the fourth class, and had received the Crimean Medal with four clasps, and the Turkish Medal, and enjoyed a special pension for distinguished services. In May, 1860, he went on half-pay. He was appointed an Honorary Physician to the Queen in 1866, and was made a Knight Commander of the Bath in 1871.

HYPERTROPHY AND ELONGATION OF THE RING-FINGER. —Dr. Lippincott relates the case of a labourer, aged twenty-five, who was admitted into the Pennsylvania Hospital. When he was two years old a stone fell upon his finger and injured it, and from that time it enlarged in size as long as the growth of the hand continued. The patient was five feet nine inches in height, and fairly proportioned. The finger was found to measure five inches in length, that of the other hand measuring four inches, the relative lengths of the different phalanges being nearly in the same proportion. The circumferences of the various phalanges, measured at their middle, also exceeded those of the corresponding finger of the other hand by about an inch. The condyles were disproportionately prominent. The finger was natural and smooth, but distressingly sensitive to cold. This, and the inconvenience felt while at work, induced the patient to have it removed. After its removal at the metacarpo-phalangeal joint, the digital artery on the radial side was found much enlarged and its coats thickened. The sheaths of the tendons were very thick and firm, and the combined flexor tendons measured at the base of the first phalanx two inches in circumference. The bone was found quite normal in structure. Dr. Lippincott refers to the few cases of elongation of bone that are on record.—*Amer. Jour. Med. Sci.*, January.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The examinations for the diploma in Dental Surgery were commenced on the 1st inst., when the candidates, thirteen in number, had submitted to them the following questions in Anatomy and Physiology, and Pathology and Surgery, and were required to answer at least one of the two questions on both subjects (time, from two to four o'clock):—Anatomy and Physiology: 1. Describe the origin, course, and insertion of the temporal muscle; and give its relations and action. State the sources from which it receives its vascular and nervous supply. 2. Enumerate the glands pouring their secretion into the mouth; and describe their structure, and the nature of the secretion of each. Pathology and Surgery: 1. From what parts of the jaws may exostoses grow? Describe their structure. 2. How is fracture of the lower jaw usually produced? State what parts may be broken, and how you would treat each form of fracture. The presiding examiner was Mr. F. Le Gros Clark, F.R.S. Later in the day (viz., from five to eight o'clock) the following questions on Dental Anatomy and Physiology, and Dental Pathology and Surgery, were submitted to the candidates, who were required to answer at least two out of the three questions on both subjects, viz.:—Dental Anatomy and Physiology: 1. Describe the mode in which the temporary teeth are shed; and mention the different theories advanced to explain the process. 2. What is meant by the term "calcification"? State the peculiarities of this process as it occurs in the formation of primary dentine. 3. What is the chemical composition of enamel? Describe its minute structure and mode of development. Describe also the histological characters of the enamel organ. Dental Pathology and Surgery: 1. What injurious results to the teeth and contiguous structures may arise from the wearing of regulating plates and artificial teeth? How would you avoid or remedy such results? 2. Name the salivary glands. State the constituents of normal and abnormal saliva, and how the latter may affect the teeth. 3. A child, ten and a half years of age, presents himself with a general crowded state of the teeth. There is no such absolute deformity as to make immediate extraction unavoidable, but sufficient to render it almost certainly necessary at some time in the progress of the case. State what permanent teeth you would expect to find cut at the above age, and on what general rules you would proceed in the treatment of the case. The presiding examiner at this portion was Mr. Thomas A. Rogers, M.R.C.S. The oral examination took place on Tuesday last, the 8th inst., before the whole board, viz., Messrs. F. Le Gros Clark, F.R.S. (chairman), Birkett, Savory, Salter, Rogers, and Barrett, when the following gentlemen were found qualified, and admitted Licentiates in Dental Surgery, viz.:—

Adams, Frank Haydon, Budleigh Salterton, South Devon.
Burrows, Walter Shoppee, New-road, E.
Gartley, John Alexander, Sackville-street.
Halliday, Middleton Wood, Nottingham-street.
Jewers, Ernest Edwin, Plymouth.
Sayles, Francis Austin, Margaret-street.
Strickland, Frank, Boundary-road, N.W.
Woodruff, William Herbert, Leamington.

Five candidates failed to acquit themselves to the satisfaction of the Board, and were consequently referred to their studies for the usual period.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 3:—

Breach, George Frederick, Aston Upthorpe, Wallingford.
Creswell, William George, Wheeley's-road, Birmingham.
Garbutt, John Gilliott, Westmount, Derby.
Hamlin, William Thorne, Athelstone-road, Bow, E.
Turner, Alfred Maxon, The Deanery, Ripon.

The following gentlemen also on the same day passed their primary professional examination:—

Gabe, John, the London Hospital.
Smyth, Albert Chas. Butler, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CARLINE, W. A., M.B., C.M., M.R.C.S. Eng.—House-Surgeon to the Lincoln County Hospital, *vice* Dr. Lill, resigned.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Herbert Mackay Ellis, Robert Cochrane Mullins, and Patrick Curtin, Surgeons to the *Duke of Wellington*, additional for Haslar Hospital; Christopher Pearson, M.D., and Charles Albert Macaulay, M.D., Surgeons to the *Royal Adelaide*, additional for Plymouth Hospital; John W. S. Meiklejohn, Fleet Surgeon, and George B. Murray, Surgeon, to the *Orontes;* and Alfred Patterson, Surgeon, to the *Moorhen*. John Ward, Medical Officer on the Retired List, has been promoted to the honorary rank of Deputy Inspector-General of Hospitals and Fleets in her Majesty's Fleet.

Royal Naval Artillery Volunteers.—T. Herbert Wadd, Esq., to be Surgeon to the Hastings Corps.

War Office—Medical Department.—Surgeon Erskine Burnett Grant, M.D., to be Surgeon-Major, *vice* Walter Leach, retired upon temporary half-pay; Surgeon Wm. Robert Wall to be Surgeon-Major, *vice* Donald Macgillivray Davidson, M.D., retired upon temporary half-pay; Surgeon John Ross Murray, M.D., to be Surgeon-Major, *vice* Charles Henry Leet, retired upon temporary half-pay; Surgeon Caleb Sherar Wills, to be Surgeon-Major, *vice* John Madden, retired upon half-pay.

BIRTHS.

Cheese.—On February 1, at 27, Stow-hill, Newport, Mon., the wife of Frederick Cheese, M.R.C.S. Eng., of a son.

Coleman.—On February 6, at 19, Savile-row, the wife of Alfred Coleman, F.R.C.S., of a son.

Griffith.—On February 3, at 9, Lupus-street, South Belgravia, the wife of G. De G. Griffith, L.R.C.P., M.R.C.S. Eng., of a son.

Peterson.—On February 6, at 45, Warwick-road, Maida-hill, the wife of R. E. Peterson, M.D., of a son.

MARRIAGES.

Allen—Booth.—On February 2, at the parish church, Barnes, Surrey, George Allen, Grove House, Stalbridge, Dorset, to Sarah Elizabeth, widow of Samuel Booth, M.D., of Salford, and eldest daughter of John Riley, Esq., of Barnes.

Collins—Dethier.—On February 3, at St. Peter's, Eaton-square, William, son of the late John Collins, M.R.C.S., to Louise Marie, youngest daughter of the latest Joseph Dethier, Esq.

Day—May.—On February 8, at St. Mary Redcliff, Bristol, W. E. Day, L.R.C.P. Edin., M.R.C.S. Eng., of Barton-hill House, Bristol, to Sarah Ann, only surviving daughter of the late Captain May.

Johnston—Hadley.—On February 2, at Kensington, Colonel Patrick Johnson, late 32nd Light Infantry, to Alpha Clementia, widow of Henry Hadley, M.D., Deputy Inspector-General.

Lees—Lilley.—On February 1, at St. Andrew's-street Chapel, Cambridge, David Bridge Lees, M.A., M.B., M.R.C.P., late Scholar of Trin. Coll. Cambridge, Assistant-Physician to the Hospital for Sick Children, Great Ormond-street, to Louisa, second daughter of W. Eaden Lilley, Esq., of Newnham, Cambridge.

Masfen—Kearney.—On February 2, at The Brooms, Leadgate, county Durham, Lancelot Charles, youngest son of the late John Masfen, F.R.C.S., of Stafford, to Mary, eldest daughter of the late Christopher Kearney, Esq., of Mullacash House, county Kildare, and niece of Matthew Kearney, Esq., J.P. and D.L. for the county of Durham, of The Ford, near Lanchester.

Morris—Oxley.—On February 7, at St. Denys, Portswood, Southampton, Augustus William Morris, Lieut. 58th Regiment, to Eva Constance, youngest daughter of T. Oxley, Esq., late Chief of the Medical Staff, Eastern Settlements.

Muir—Leslie.—On January 31, at St. George's Church, Hanover-square, William James, son of William Muir, Esq., of Melbourne, Victoria, to Margaret, daughter of the late David Leslie, M.D., formerly of Leslie-hill, county Armagh.

Pulford—Jameson.—On November 27, at Saharumpore, Russell R. Pulford, Lieut. Royal Engineers, eldest surviving son of the late George Pulford, H.E.I.C.S., to Janet Helen, elder daughter of Dr. William Jameson, Surgeon-Major Bengal Army, Superintendent Botanical Gardens, Saharumpore.

Wharry—Whittell.—On November 16, 1875, at Oakland, California, Charles J. Wharry, of the Gov. Civil Hospital, Hongkong, to Florence Irene, daughter of T. Whittell, Esq., of San Francisco.

DEATHS.

Bartlet, Mary Caroline, wife of Alexander Henry Bartlet, M.D., F.R.C.S. Eng., of Ipswich, on February 1, aged 73.

Broxholm, Caroline, widow of Robert George Broxholm, M.R.C.S., at her residence in Sunbury, Middlesex, on February 5, in her 78th year.

Cahill, Mary, widow of Alexander Cahill, M.D., 25th K.O.B. Regiment, at Berwick-on-Tweed, on February 7, aged 84.

King, Richard, M.D., M.R.C.S. Eng., L.S.A., at 1, Blandford-street, Manchester-square, on February 4, aged 65.

King, William Grimwood, M.D., L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at his residence, 60, King Edward's-road, South Hackney, on February 4, in his 72nd year.

Lomas, Enid Theodora; only surviving daughter of W. Lomas, M.D., at 99, Gower-street, W.C., on January 31, aged 9 months.

Mitchell, Joseph Thomas, F.R.C.S. Eng., L.S.A., at 176, Clapham-road, S.W., on February 5, in his 78th year.

Ruttledge, James, M.D., late of George-street, Hanover-square, London, at Portland-place, Brighton, on January 29.

Taylor, Caroline, wife of Alfred Swaine Taylor, M.D., F.R.S., at 15, St. James's-terrace, Regent's-park, N.W., on February 8, aged 66.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Birmingham Amalgamated Friendly Societies' Provident Medical Institution.—Resident Surgeon. Candidates must be married and duly qualified. Applications, with testimonials, to the Secretary, 197, Camden-street, Birmingham, on or before February 16.

Bristol General Hospital.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

County Palatine of Lancaster.—County Analyst. Applications, with testimonials, to the Clerk of the Peace, 34, Winckley-square, Preston, on or before February 18.

General Hospital, Birmingham.—Resident Surgical Officer. Candidates must be M.R.C.S. Applications, with testimonials, to W. T. Grant, House-Governor, on or before February 28.

Lewes Dispensary and Infirmary.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. M. S. Blaker, Lewes, on or before February 19.

Middlesex Hospital. — Ophthalmic Surgeon. Applications before February 24.

North London Consumption Hospital.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

Odd-Fellows' Dispensary, Hull.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

Royal Hospital for Diseases of the Chest, City-road.—Surgeon. Applications, with testimonials, to the Secretary, on or before Feb. 28.

Tiverton Infirmary and Dispensary.—House-Surgeon and Dispenser. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Mr. T. B. Patterson, Tiverton.

University of Glasgow.—Additional Examiners in Medicine. Applications, with testimonials, to Dr. Anderson Kirkwood, on or before March 1. (For further particulars, see advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Leeds Union.—Mr. E. Groves has resigned the Workhouse and the Schools; salary £300 per annum.

Manchester Township.—Mr. G. R. Gowland has resigned the office of Resident Assistant Medical Officer at the Crumpsall Workhouse; salary £150 per annum.

North Witchford Union.—Mr. R. M. Willan has resigned the Fourth District; area 14,126; population 2905; salary £60 per annum.

Plymouth Incorporation.—Mr. R. J. Shepherd has resigned; salary £90 per annum.

West Derby Union.—Mr. J. Anderson has resigned the North Municipal District; area 1050; salary £125 per annum.

Wolverhampton Union.—Mr. J. Hartill has resigned the Willenhall and Wednesfield District; area 5585; population 27,156; salary £130 per annum.

APPOINTMENTS.

Monmouth Union.—David W. Morris, L.K. & Q.C.P., M.R.C.S. Eng., to the Skenforth District.

Southmolton Union.—Henry Adey, M.B., C.M. Univ. Edin., to the Eighth District.

Thame Union.—Alex. S. L. Newington, B.M. Camb., M.R.C.S. Eng., to the Waterperry District.

Whitehaven Union.—John Shannon, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Whitehaven District.

Wolstanton and Burslem Union.—W. B. Kendall, L.R.C.P. Edin., M.R.C.S. Eng., to the Kidsgrove District and the Workhouse; J. Proctor, M.R.C.S., L.S.A., to the Tunstall District.

The Hunterian Oration.—We are requested to announce that there will be no Oration *this year* at the College of Surgeons, where it is now delivered biennially. Sir James Paget will give it in 1877.

Inspector of Anatomy.—We are glad to announce that, on the recommendation of a distinguished member of our profession, Mr. John Birkett, F.R.C.S., Vice-President and Chairman of the Court of Examiners of the Royal College of Surgeons, has just been appointed the Government Inspector of Provincial Medical Schools, in the vacancy occasioned by the resignation of John William Ogle, M.D. This appointment will no doubt give the greatest satisfaction to provincial and metropolitan members of our profession, especially those educated at Guy's Hospital, at which institution Mr. Birkett is deservedly popular.

The Superannuation of Asylum Medical Officers.—A deputation, consisting of medical superintendents of district lunatic asylums in Ireland, waited on the Chief Secretary at Dublin Castle a few days ago, for the purpose of presenting a memorial calling attention to their anomalous position in reference to their salary and superannuation. They complain that they are deprived of the benefit of the Superannuation Act of 1850, not being recognised as Civil servants because their salaries are not paid through the Treasury. They must remain forty years in office before they can be entitled to a pension of two-thirds of their salary. They suggested that, in place of the capitation grant to the asylums being passed in bulk, a certain sum for the salaries of the medical superintendents should be put into the Estimates. Sir Michael Hicks-Beach, in reply, said that if an opportunity arose he would endeavour to improve their condition, but he would not promise any legislation on the subject.

Owens College, Manchester.—The medical students of this excellent provincial school have just presented a valuable timepiece to their indefatigable demonstrator, Mr. J. Beswick Perrin, M.R.C.S., F.L.S., etc., as a mark of their appreciation of his services as Demonstrator of Anatomy, and as a tribute of respect on the occasion of his approaching marriage. Mr. Beswick Perrin, who is an old King's College man, was formerly engaged in the Hunterian Museum of the College of Surgeons, where he was also much and deservedly respected by all his colleagues.

John Hunter and the Democrats.—At a sale of autographs on Saturday last by Messrs. Sotheby, there was a very interesting letter, one page quarto, by John Hunter, in answer to a person applying for a ticket to view his collection, which was only open during the months of May and October:—"If your friend is in Town in October (and not a Democrate) he is welcomb to see it; but I would rather see it in a blaze like the Bastile than shew it to a Democrate, let his country be what it may." (The orthography is strictly preserved.) The letter was accompanied with a portrait of Hunter and an autograph note of Mr. Collingridge, and was knocked down for £2 4s.

Professor Flower, F.R.S.—This gentleman will commence the delivery of his course of nine lectures in the theatre of the Royal College of Surgeons on Monday next, the 14th inst., which happens to be the anniversary of the birthday of his illustrious master John Hunter. The following is a syllabus of his lectures on "The Relation of Extinct to Existing Mammalia, with special reference to the Derivative Hypothesis," and in conclusion of his course of 1873. Lecture 1 (February 14).—Introduction—John Hunter's Palæontological writings and collections—Value of the study of fossil remains in elucidating the most important physiological problems—Recapitulation of last course—Recent additions to our knowledge, especially by the discoveries in North America. Lecture 2 (February 16).—Summary of the present state of knowledge of the past history of the *Monotremata*, *Marsupialia*, *Edentata*, and *Ungulata*, as given in last course, with additions from recent discoveries—American extinct Perissodactyles and Artiodactyles—Successive stages in the development of the horse, rhinoceros, and camel family. Lecture 3 (February 18).—The *Proboscidea* or elephant-like animals—Elephants, mastodons, and dinotherium. Lecture 4 (February 21).—Extinct aberrant forms of ungulate mammals—*Uintatherium*, and the gigantic quasiproboscideans of North America—*Toxodon*, *Nesodon*, etc. Lecture 5 (February 23).—The *Sirenia* or sea-cows—Manati, dugong, *Halitherium*, etc. Lecture 6 (February 25).—The *Cetacea*—Whalebone whales and toothed whales—Squalodons and Zeuglodons. Lecture 7 (February 28).—The Pinniped Carnivora—Seals, walrus, and sea-lions—The terrestrial Carnivora—Lecture 8 (March 1).—The terrestrial Carnivora (*continued*)—Primitive and annectant forms—The *Tillodontia* of the American Eocenes—The *Insectivora*, *Chiroptera*, and *Rodentia*—Lecture 9 (March 3).—Extinct lemurs and monkeys—Fossil remains of man—Conclusion.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

E. J., Durham.—There can be no fixed rules. Bring the matter in some definite shape before the governors.

Mr. Malcolm.—Professor Wilson, F.R.S., will bring his course of lectures on Dermatology, at the College of Surgeons, to a close this day (Friday).

P. A. Davis.—Sir James Paget was born at Great Yarmouth in 1814; the heir to the baronetcy is his eldest son John Rayhere Paget, not Rayhore, as stated in "Dod's Baronetage." He was educated at Trinity Hall, Cambridge, and graduated B.A. and L.L.B.

Junius.—The next preliminary examination in arts, etc., for diploma of Membership of the College of Surgeons will take place at Burlington House on the 14th prox. Why not write to the Secretary of the College for these particulars?

M.A. Cantab., St. Bartholomew's.—There is a capital portrait of Dr. George Paget, D.C.L., F.R.S., in vol. iii. of "The Medical Profession in all Countries," published by Messrs. Barraud and Jerrard. Dr. Paget is the brother of Sir James Paget, Bart.

Dens Sap., Bristol.—You will find the questions given at the recent examination for the "L.D.S." of the College of Surgeons on another page.

C. Lacey.—Apply to any hospital surgeon.

J. Simpson.—The question is not easy to answer. The story goes that Wellington used to swear by his five-feet-four men, which is rather under than over the average.

Cid.—Yes, the late Mr. John Forster was appointed Secretary to the Lunacy Commission in 1855 and a Commissioner in Lunacy in 1861; the latter appointment he resigned only a short time ago.

Achilles.—By the recent order of the Commander-in-Chief, a medical officer joining a regiment for duty will commence to pay subscriptions to the regimental mess and band funds by quarterly instalments in advance from the date of joining. In case, however, such officer should be removed from the regiment for other duty before the end of the quarter for which he has subscribed, his subscription will be calculated only up to the date of his removal, and any excess he may have paid will be refunded to him by his regiment. As to detachments, medical officers will be treated, in respect of band and mess subscriptions, in precisely the same manner as other officers of the regiment.

Bombay.—The Bombay Government (says the *Bombay Gazette* of the 10th ult.) have asked four of the principal medical men of this presidency to form a committee to advise as to the measures to be adopted for providing suitable hospital accommodation for Europeans in Bombay. This is a most wise and laudable recognition of the practical experience of medical men on the subject.

Ophthalmologist.—Professor Carter will not deliver his course of lectures until some time in June, when he will give six lectures on questions in Ophthalmic Surgery.

Excelsior, Edgbaston.—"Sex in Education," by Dr. Edward Clarke, of Boston, formerly a professor in Harvard College, published in 1874. It describes the baneful effects upon female health which have been produced by an excessive educational strain. "If," he says, "these causes should continue for the next half-century, and increase in the same ratio as they have for the last fifty years, it requires no prophet to foretell that the wives who are to be the mothers in our republic must be drawn from Transatlantic homes. The sons of the New World will have to re-act, on a magnificent scale, the old story of unwived Rome and the Sabines."

Voluptuous.—In the "Gulistan" of Saadi (Tale 6—"Of the Good of Contentment") it is said to be recorded in the annals of Ardsheer Babúkaa, that in a talk of his on food with an Arabian physician the latter quoted a couplet—

"Eating is for living and praise (of God):
You think that living is for eating."

We have the same wise saying—"Men should eat to live, not live to eat."

Lux.—Mr. George Smith, F.S.A., in his work "Our Canal Population," puts the numbers at from 80,000 to 100,000 men, women, and children, living, sleeping, and working in connexion with boating.

G. W. Dickes.—The London School Board has adopted the suggestion of the Medical Officer of the Board of Industrial Committee for making more satisfactory provision for the isolation of infectious cases, and has taken two cottages, eligibly situated and suitable for the purpose.

M.R.C.S.—The order just issued by the Admiralty in respect to the surgeon doing duty at Chatham Dockyard, who has hitherto been borne on the books of the Steam Reserve, and was liable to be ordered elsewhere at any moment, is, that for the future the officer holding that appointment is to be borne on the books of the Dockyard, and the appointment is to be for three years.

A Metropolitan Teacher.—A rumour has reached us that great alterations in the mode of obtaining the Fellowship of the College of Surgeons will shortly be submitted to the Council by a sub-committee appointed for the purpose; but it is to be hoped, in justice to those who have obtained the distinction by hard work, that this will be done without lowering the standard.

The Contagious Diseases Acts and their Claims.

To the Editor of the Medical Times and Gazette.

Sir,—The medical press must be the only legitimate authority to pronounce a verdict on the operation of these Acts, to influence legislation and public opinion. Parliament has responded to the one, and will, no doubt, again; but there are so many difficulties in placing results and facts before the public mind, and so many prejudices and misrepresentations to add to these difficulties, that time and the force of facts can alone be relied upon to remove these (for the most part) senseless and obstructive clamours. State exigency, which set up these Acts, has been denied, and the violation of religion and fostering of vice have been brought to bear on unreflecting persons not looking below the surface of things to raise a hue and cry; whereas investigation shows not demoralisation but religious change for the better, and the mitigation and cure of loathsome disease. No declaimer or writer (in the profession or out), however specious, can disprove the reports of the many official gentlemen appointed to carry out the Acts. I can only conceive that those objectors—even Dr. Nevins—of rank in the profession act upon foregone conclusions; and when Dr. Nevins states that, in places under the Acts and places not under them, there have been changes major and minor in the localities of venereal diseases, and which he tabulates against the Acts, it is clear he must reason upon wrongs data, if the official reports be true—reports, be it said, from a host of men of honour, character, and ability. I would beg to mention a most interesting paper contributed under the signature "M.R.C.S." in the *Nautical Magazine* for January this year (Simpkin and Marshall, London, 1s.): a most circumstantial and painstaking summary, very creditable to the writer, and worthy of being read by all desiring an impartial history of this *quæstio vexata*. I am &c., M.R.C.S. of 1818.

A. S., Gloucestershire.—The number of public analysts in the country is about eighty.

COMMUNICATIONS have been received from—

Anti-Humbug; Dr. Aveling, London; The Secretary of the Seamen's Hospital Society, Greenwich; Mr. Teevan, London; Dr. Mease, Cavan; Mr. F. P. Bond; F. W. L.; Dr. Sparks, Mentone; Dr. R. H. B. Nicholson, Hull; Dr. Dowse, London; Mr. Jepson, Durham; Mr. T. A. Roberts, Peterborough; Dr. James Dunlop, Glasgow; Dr. Wm. Robert Smith, Aberdeen; Mr. Henry Morris, London; Mr. George Lawson, London; Mr. J. Chatto, London; Mr. Geo. Brown, London.

BOOKS AND PAMPHLETS RECEIVED—

Radcliffe on Vital Motion as a Mode of Physical Motion—Ransome on Stethometry—Balfour's Clinical Lectures on Diseases of the Heart and Aorta—Catalogue of the Models of Diseases of the Skin, in the Museum of Guy's Hospital, by C. Hilton Fagge, M.D.—Leçons Cliniques sur les Maladies Mentales, par le Dr. A. Voisin—Thirty-sixth Annual Report of the Registrar-General of Births, Marriages, and Deaths in England—Clinical Contribution to Ophthalmology from the Practice of Dr. C. R. Agnew, of New York—Om Ätiologieu af den Hereditäre Syfilis af Dr. Adam Öwre.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Gazzetta Medica della Calabrie—The Durham Chronicle—Cassell's History of India, part 2—Hastings and St. Leonard's Chronicle—Bolton Evening News—The Medical Examiner.

APPOINTMENTS FOR THE WEEK.

February 12. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. W. Thiselton Dyer, "On the Vegetable Kingdom; the Boundaries and Connexions of its Larger Groups."

14. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Boyd, "Observations on Epilepsy: the Statistics of 330 Cases, and a brief Analysis of 173 Post-mortem Examinations." Dr. Crombie, "A New Apparatus for the Administration of Anæsthetics."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

15. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Continuation of Adjourned Discussion on Syphilis.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Statistical Society, 7¾ p.m. Sir Chas. Dilke, Bart., M.P., "On the Municipal Government of Paris." Dr. F. J. Mouat, "On International Prison Statistics."

16. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Meteorological Society (25, Great George-street, Westminster), 7 p.m. Hon. Ralph Abercromby, "An Improvement in Aneroid Barometers." Colonel J. Puckle, "Meteorology in India in relation to Cholera."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

17. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Dr. W. H. Day, "Observations on Tuberculosis in Children, and the conditions which resemble it."

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

18. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Medical Microscopical Society, 8 p.m. Dr. Thin, "On the Formation of New Bloodvessels."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. C. Wm. Siemens, "On the Action of Light on Selenium."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 5, 1876.

BIRTHS.

Births of Boys, 1334; Girls, 1243; Total, 2577.
Average of 10 corresponding years 1866-75, 2383·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	929	842	1771
Average of the ten years 1866-75	771·7	758·6	1530·3
Average corrected to increased population ...	...	...	1637
Deaths of people aged 80 and upwards ...	...	...	78

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	9	9	2	18	...	2	...	1
North... ...	751729	...	8	15	3	35	...	3	...	3
Central ...	334369	...	7	2	2	8	...	1	...	2
East	639111	...	8	6	...	28	1	3	3	2
South... ...	967692	1	9	16	2	20	...	6	3	4
Total	3254260	1	41	48	9	109	1	15	6	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·999 in.
Mean temperature	41·6°
Highest point of thermometer	56·1°
Lowest point of thermometer	30·9°
Mean dew-point temperature	36·3°
General direction of wind	Variable
Whole amount of rain in the week...	0·20 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 5, 1876, in the following large Towns :—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Feb. 5.	Deaths Registered during the week ending Feb. 5.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2577	1771	56·1	30·9	41·6	5·34	0·20	0·51
Brighton	100632	42·7	73	27	48·4	31·9	41·0	5·00	0·16	0·41
Portsmouth ...	124367	27·8	67	45	...	...	...	...	...	...
Norwich	88430	11·2	60	39	53·8	31·0	40·4	4·66	0·40	1·02
Plymouth	72230	51·8	49	30	51·0	30·5	43·5	6·39	0·75	1·90
Bristol	199539	44·8	137	92	55·7	30·5	42·8	6·00	0·37	0·94
Wolverhampton ...	72549	21·4	56	27	51·1	30·4	41·4	5·22	0·39	0·99
Birmingham ...	371839	44·3	315	188	54·5	30·5	41·0	5·00	0·32	0·81
Leicester	113581	35·5	90	44	53·0	32·8	41·6	5·34	0·15	0·38
Nottingham ...	93627	46·9	59	49	54·0	32·9	40·8	4·89	0·35	0·89
Liverpool	521544	100·1	389	308	52·2	33·3	42·3	5·73	0·29	0·74
Manchester ...	357917	83·4	293	232	53·2	30·0	41·8	5·45	0·76	1·93
Salford	138425	26·8	151	80	53·5	28·8	42 1	5·62	0·76	1·93
Oldham	88609	19·0	75	49	...	...	...	...	...	...
Bradford	173723	24·1	133	113	55·6	33·0	43·1	6·17	0·57	1·45
Leeds	291580	13·5	233	141	56·0	32·0	41·8	5·45	0·44	1·12
Sheffield	274914	14·0	215	132	54·5	33·5	42·0	5·56	0·71	1·80
Hull	136933	37·7	115	61	52·0	32·0	40·3	4·61	0·79	2·01
Sunderland ...	108343	32·8	86	39	54 0	31·0	42·2	5·67	0·29	0·74
Newcastle-on-Tyne	139929	26·1	125	77	53·0	30·0	37·8	3·23	0·30	0·76
Edinburgh	215146	51·3	143	98	53·5	31·0	42·3	5·73	...	...
Glasgow	545144	90·4	364	275	...	...	...	...	...	...
Dublin	314666	31·3	200	163	57·4	23·7	43·3	6·28	0·11	0·28
Total of 23 Towns in United Kingdm	8028595	37·7	6014	4080	57·4	23·7	41·7	5·39	0·43	1·09

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·00 in. The highest was 30·26 in. on Monday morning, and the lowest 29·65 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture III.

DOUBTFUL SEX.

(*Concluded from page* 162.)

II.—Abnormal Development of the Sexual Organs.

We now come to consider, *in the second and last place*, the determination of the sex in those cases in which the *organs of generation are malformed*. What adds to the difficulties of the medical jurist in these inquiries is, that malformation here is seldom *confined to the genitals alone*, but often extends to *the conformation of the body generally*, and even to *the distinctive mental faculties*, while the sexual desires are either wanting altogether or point in a wrong direction—the male considering himself and acting as a female, and the female as a male. It has occasionally happened (as already stated) that in such instances nothing short of actual dissection after death has discovered the true sex of the individual.

To the whole of this class of malformations the generic term *hermaphrodism* has been applied: not that it is meant that such a being as a hermaphrodite, in the *striet sense* of the term—that is to say, a being possessing both the male and female organs in such a state of perfection as to be competent to perform the functions of either sex indifferently—actually has ever existed in man, or any of the higher classes of animals; no one now asserts this. Following in this some of the latest and best authors, we shall consider these imperfect beings—imperfect from defect on the one hand, and excess on the other—under two specific appellations, viz., that of *true*, and that of *false* hermaphrodites.

In the *first*, or *false* species of *hermaphrodism*, "the genital organs and general sexual conformation of one sex approaches, from imperfect or abnormal development, to those of the opposite."

In the *second* species, the *true hermaphrodism*, "there actually co-exist upon the body of the same individual more or fewer of the genital organs and distinctive sexual characters, both of the male and female."—("Cyc. of Anat.," vol. ii., page 684.)

With proper care and attention, it is always easy to discover the true sex in the different varieties of *spurious hermaphrodism*. It is chiefly in regard to the so-called *true hermaphrodite* that the mistakes referred to have arisen, even in the hands of competent observers.

To facilitate your comprehension of this difficult and important subject, I have had printed the table given by Sir James Simpson in the second volume of the "Cyclopædia of Anatomy," which I prefer (as less elaborate) for our purpose to that of M. Geoffroy Saint-Hilaire. Simpson's table ("Cyc. of Anat.," vol. ii., page 685) will convey a clearer idea of the varieties of these beings than could be conveyed in words. It will not be necessary, under the present subject, to examine in detail *all the varieties* laid down by this author, two of which will come before us again under Impotence and Sterility.

Let us consider *the false hermaphrodism* (androgyni)—first, as it exists occasionally *in the female*. This variety of spurious hermaphrodism has been known to arise from two causes: either (1) from a *preternatural growth of the clitoris*, or (2) from *prolapsus of the uterus;* the enlarged clitoris in the one case, and the protruded uterus in the other, having been repeatedly mistaken for the male penis.—(Simpson, "Cyc. of Anat.," vol. ii., page 606.)

The size of the clitoris is said to be greater than usual in some tropical climates; while travellers have related that amongst certain tribes this increased development is nearly universal in their females. Even in Europe this increased development is not very unfrequent. I have had occasion to notice it in a girl aged thirteen, who was believed to have yielded herself for some years previously to libidinous practices. In Arnaud's case ("Dissert. sur les Hermaph.," page 265), the organ is said to have been ten inches long; and in Beclard's case (*Bullet. de la Faculté* for 1815, page 273), twenty-seven centimetres (ten inches and a half). In Ramsbotham's case (*Lond. Med. Gaz.*, vol. xiii., page 134) there was a sulcus, ending in a *cul-de-sac* at the summit of the clitoris. In Beclard's case the vulva was blocked up by a dense membrane, and the entrance of the vagina would only admit the passage of a sound of moderate size; the labia were narrow and short, and the bodily conformation more masculine than feminine.

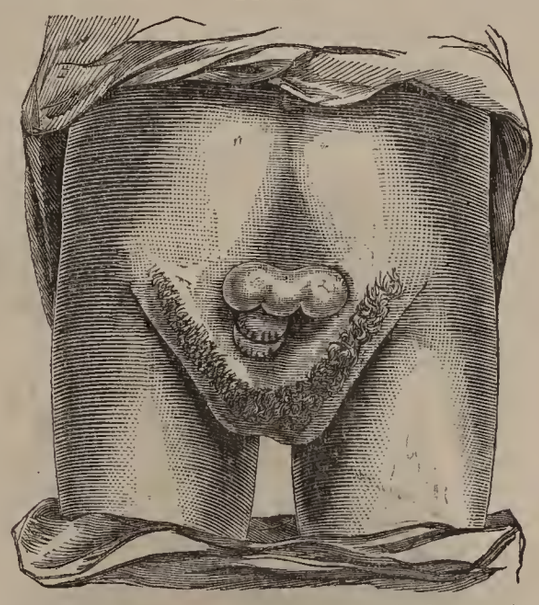
The worst of the features, in certain of the recorded instances of this form of hermaphrodism, is the marriage of the parties as males; or others of them, who, on account of their notorious commerce with both sexes indifferently, draw upon themselves the notice of the law authorities.—(Wharton and Stillé, page 313.)

The remaining form of spurious female hermaphrodism is that in which *a prolapsus uteri* has been mistaken for a penis; a mistake which, however unaccountable, has been made even by the profession; as in the instance recorded in the *Philosophical Transactions*, vol. xvi., page 282, where a female passed herself off for a true hermaphrodite with the Faculties of Toulouse and Paris, till one member of the latter body detected her true sex. Other instances of the same mistake are given by Sir J. Simpson. In the *male* the varieties encountered in the *false or spurious hermaphrodites* (androgyni or gynandri) are the malformations—1st, from extroversion of the bladder; 2nd, from adhesion of the penis to the scrotum; and 3rd, from hypospadia.

1. The first of these forms of hermaphrodism has less bearing on the subject we are considering (sex) than on that of *impotenee*, as only a very careless observer could confound the protruded bladder above the pubis for the vulva of a female. This bodily conformation seems to be not unfrequent, as I have met with it thrice in males, in addition to the instance above referred to in the female child previously shown. Two of the males were shown to the class in former sessions, and the third is presently in the Infirmary, where his cure is being attempted.

The subjoined figure, taken from one of the casts, illustrates a common feature in many of these cases—viz., the diminutive penis, the shrivelled scrotum, and the scarcely distinguishable (atrophied) testes.

Fig. 2.



2. Adhesion of the inferior surface of the penis to the scrotum has, says Sir J. Simpson, "occasionally given rise to the idea of hermaphrodism, the penis being so bound down as not to admit of erection, and the urine passing in a direction downwards, so as to imitate the flow of it from the female parts."—(*Op. cit.*, page 691.)

A brief narrative of a case of coalition of the penis to the scrotum is given in the twenty-first volume of Eulenberg's "Vierteljahrschrift für Gerichtlichen Medicine," page 77. The peculiarity of this individual was the position of the penis, not in front but behind the scrotum, which appears from the woodcut to have been partially cleft. The doubts here arose not as to the sex of the individual, but as to his potency.

3. *The remaining variety of spurious male hermaphrodism* is that arising from hypospadic cleft of penis. In those malformed persons termed hypospadians, the urethra, instead of being continued to the summit of the glans penis, is found to terminate by an opening in the median line, somewhere along the lower surface of the penis nearer to the bladder. Where the orifice thus misplaced is but small, and in the vicinity of

the glans, no mistake can arise. In a patient who presented himself to me with gonorrhœa in 1839, the opening was close behind the attached border of the prepuce, and though the glans was really imperforate, it did not appear so at first sight, from there being two or three *blind openings* near where the urethra usually terminates.

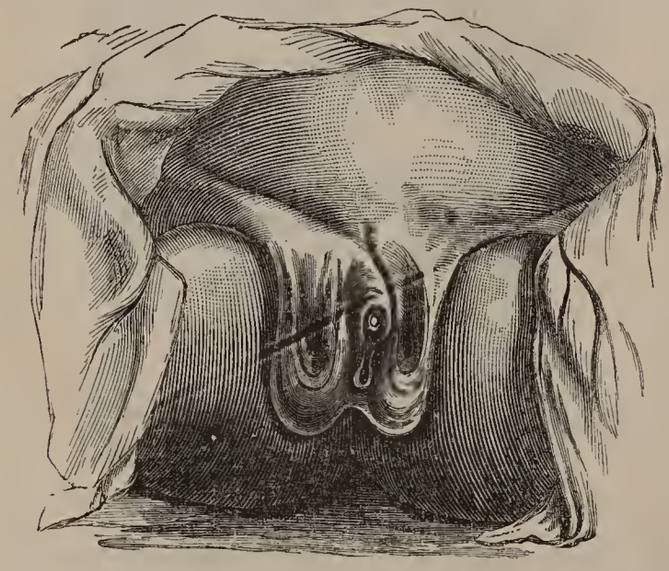
Cases, however, not unfrequently occur of a more puzzling kind. In these the glans is imperforate, the penis is diminutive in size, resembling an enlarged clitoris; the urethra opens further back towards the perineum, the opening not being a mere foramen, but a fissure of some length, so as to give the idea of the entrance to the vagina in the female. When the fissure is thus situated, the scrotum is frequently found split into two lateral halves, giving no indistinct approximation to the form of the labia majora in women. Should the testes not have descended from the abdomen, as in some men who are otherwise normally formed, the deception would be still more complete.

Dupuytren, in his "Leçons Orales," mentions "an extraordinary instance of this kind. A person affected with hypospadia was married for fifteen or twenty years, and during all that time was treated as a female. *Sexual intercourse* was regularly effected by *the canal of the urethra*, nor was it until the period just mentioned had elapsed that it was discovered that the individual was a man."—(Cummin, *Med. Gaz.*, vol. xix., page 133.) Three different cases, in several respects similar, are given by Arnaud, Caspar, and Geoffroy St. Hilaire, in two of which the supposed female was in the practice of cohabiting with the male sex, while in the other instance the party lived for a long time on good terms with a husband.—(Wharton and Stillé, "Cyc. of Anat.")

A person with this conformation of the genitals exhibited himself here, some years ago, to several of the medical practitioners. The testicles could be felt in the two divisions of the cleft scrotum; but the urethral fissure, which was lined with mucous membrane of a red colour at its lips, was large enough to admit one or two fingers to about the depth of an half an inch, and was copiously moistened with mucus. The penis was small, and the glans imperforate. The masculine character of the body generally was pretty well developed.

Of the wax cast before you (Fig. 3)—given me by the late Professor Lizars (Aberdeen University)—I have but an imperfect

Fig. 3.



account. It was said to have been taken from a Lascar in Guy's Hospital some years ago. It appears to have been that of a person of the same form of sexual malformation as the last. The penis, it will be seen, was imperforate; one testicle had remained at the groin, and the other was evidently present in one of the divisions of the split scrotum.

Such are the different varieties of the spurious hermaphrodism, the forms of genital malformation of most frequent occurrence, and of the existence of which there is no dispute amongst authors. There is, however, no such unanimity as to there being in nature such a thing as a *true* or *real* hermaphrodite; but the differences on this point have turned on the reality of the alleged instances of persons possessing not *the organs*, but *the functions* of both sexes. Such bisexual *powers* are met with in union with the bisexual *conformation* in the greater number of the phanerogamous plants, and in certain classes of animals in the lower grades; but, unless among some of the older authors, this claim is generally abandoned in the case of man and the higher animals, the term of true hermaphrodism being restricted to those cases in which "there actually co-exist, in the same individual, more or fewer of the genital *organs* and distinctive sexual characters both of the male and the female."—("Cyc. of Anat.") Far from agreeing with the plants and animals, to which we have just alluded, in prolific power, we are not aware of a single authentic instance of such mixed beings possessing even *the generative functions of one sex*—resembling in this the sterility and impotence of the mule amongst animals.

The *first variety* of this species we shall notice is that which has been called *lateral hermaphrodism*. The peculiarity of the sexual organs in these persons has been that in the same individual there has been found on one side of the mesial line a testicle and its appendages, or what has resembled such; and on the other an ovary and its appendages. In such cases the organ which has been found most frequently on the left side has been the ovary, and *vice versâ*. In these instances, also, "along with a testicle on one side and an ovary on the other, there has generally co-existed a more or less perfectly formed uterus"; while "the external parts" of generation and of the body generally "have differed in their sexual characters; in some instances being *female*, in others *male*, and in others, again, of a *neutral* or indeterminate type."—("Cyc.," vol. ii., page 698.)

The *second variety* of *true* hermaphrodism is what has been termed the *transverse*.

In the last variety considered we found that *the male organs* were placed on *one side* of the mesial plane of the body, and *the female on the opposite*. In the present variety—that of *transverse* hermaphrodism—on the other hand, the external organs are *male*, and the internal *female;* or the external genital organs are *female*, and the internal *male*. (By *external* and *internal* we do not mean those parts placed superficially or more deeply in the body: we employ the words external and internal in the sense in which they are employed by St. Hilaire, as followed by several anatomists:—Those parts of the genitals which are covered by the common integuments or are lined by mucous membrane, and thus communicating with the external air, are by them classed as *external organs*, in which are included the vagina and uterus, though hid deep in the pelvis. The *testis*, though more exposed from being placed outside the pelvis, is termed an *internal* organ.)

This being understood, we proceed to remark that there is only one form of this variety with which, as medical jurists, we can—even if in this we can—have anything to do, viz., the one in which the external genital organs are *female*, and the internal *male;* and, in fact, even here little more than mere suspicion can in any case during life be entertained, as the true state of matters can only be guessed at by our finding a body which resembles a testicle in size and form in the groin or labia. You will readily perceive that the medical jurist would only be called on to clear up the doubts as to the sex of such an individual during *the lifetime* of the party. The existence in this case of a body which *might be* a testicle in *the labium* is too slight evidence whereon to found a decision. Nothing short of dissection after death can lead to the discovery of the transverse form of hermaphrodism.

The third and last variety of *true* hermaphrodism does not at all fall within our province to investigate, as the existence of two ovaries and two testes in the same individual cannot even be suspected, much less verified, during life.

The subject of hermaphrodism will be fitly concluded with some directions for the guidance of the medical jurist when called upon for a decision as to the sex of an individual affected with any of those malformations we have considered. An hermaphrodite is recognised in law, and is allowed to inherit property by descent or otherwise, according to the prevailing sex. In ecclesiastical courts, the sex of these persons requires to be fixed in questions relating to the validity of marriage.

It must be abundantly obvious that nothing but an intimate acquaintance with the prevailing varieties of hermaphrodism can assist the medical jurist in investigations of this kind, particularly in cases of *true hermaphrodism*, in which the greatest difficulties occur. For these, or, indeed, for any of the varieties, no specific rules can be given. There are, however, a few *general rules* applicable to all such inquiries, which it is of consequence to keep in mind. Those which are given by Marc, in the article "Hermaphrodisme," in the "Dictionnaire

des Sciences Médicales," and adopted by Orfila and Cummin, are the best we possess, and are as follows :—

Firstly, "the examination of all the external organs" (of generation) "must be performed with exactitude and caution. Every opening is to be sounded, to ascertain its depth and direction, taking care to use no force."

Secondly, "the inspection of the whole surface of the body is no less essential, with a view to determine the prevailing character, and hence the probable sex. This, however, will often require time. We cannot immediately become acquainted with the tastes, habits, and propensities of the individual under examination; and care must be taken not to confound the habits which may have originated in the artificial position held by the party in society, with those which result from organic structure or development."

Thirdly, "ascertain whether from any opening, especially about the genital parts, there be any *periodical* sexual discharge—a circumstance of great importance, and which will be of itself almost decisive as to the feminine nature of the person examined."

Fourthly, "when the individual submitted to our scrutiny is very young (suppose a new-born child with irregular sexual organs), nothing is more likely to mislead than precipitation. We must avoid haste by all means. Perhaps the utmost we can or ought to do in the first instance would be to give a formal notice of the dubious nature of the case, and to take time—years, if necessary—in order to be able to observe the progressive development of the physical and moral characteristics; this we should deliberately do, rather than hazard any opinion which subsequent facts may stultify."

Lastly, "no attention ought to be paid to the declarations of the individual, or of his or her relations; at all events, it will be necessary to weigh well such declarations, in order that we may form a correct judgment of the possible motives by which they may be dictated."—(Cummin, *Med. Gaz.*, vol. xix., page 137; Orfila, "Traité," vol. i., page 234.)

Concealed Sex.

Under the head of *concealed sex*, some writers on medical jurisprudence (Cummin) have treated of those persons who, without any such malformations as we have considered, have purposely assumed the dress and occupation of the opposite sex from their own. There have been individuals who have done so from caprice, or from other than criminal motives; others have done so deliberately, as a screen for the commission of the most execrable and abominable actions.

These cases present no difficulty in investigations bearing on the sex of the individual. The dress, and occasionally some of the *general* sexual characteristics, are usually all that favour the deception; and when the former is laid aside, the ambiguity, if any, ceases.

A LECTURE ON CANCER OF THE STOMACH.

By Professor WILLIAM EBSTEIN, of Göttingen.

(*Concluded from page* 164.)

Cancer of the stomach, when it involves the cardiac opening and causes its stenosis, may produce so much narrowing of that part that liquid food may be unable to enter the organ. We then meet with nearly the same series of phenomena as in strictures of the œsophagus, especially those due to cancer. Food is generally vomited almost immediately after it is taken, except where dilatation of the œsophagus has occurred above the seat of stricture. The stomach is contracted into a very small compass, and in uncomplicated cases the gastric region, as well as the whole abdomen, are drawn in and flattened, so that it is often possible to press right down on the patient's vertebral column in the emaciated condition in which he generally is. It is not always, however, necessary that there should be a stricture of the œsophagus or of the cardiac orifice for vomiting to occur immediately after food has been swallowed, for this regurgitation may merely depend on spasmodic contractions of the œsophagus. I had a gentleman aged sixty under my care in Breslau last summer, who could not swallow a mouthful of cold water without throwing it up again immediately, and the water had not the slightest acid reaction to test-paper. I could pass a thick English œsophageal bougie without any difficulty down into his stomach. This patient has since died of cancer of the stomach. A female patient, who was under the care of my friend Dr. Schütte, exhibited the same phenomenon. I believe that the spasmodic contraction of the gullet in cases like the above is of reflex origin, and that the irritation of the first portion of food or liquid which reaches the ulcerated surface of the stomach, by exciting a spasm in the parts higher up, imperiously demands the almost entire rejection of the remaining portions before they can reach the stomach. You may, perhaps, be aware that similar phenomena of purely neurotic origin have been described by various writers under the title of *dysphagia spastica;* but very little attention seems to me to have been paid, as yet, to the occurrence of similar symptoms in cancer of the stomach.

Among the dyspeptic symptoms which are met with in gastric cancer, especially the pyloric form, abnormal sensations and feelings of pain are very common. They are not, however, peculiar to this disease, nor are they in any way characteristic of it, since they occur equally in other affections of the stomach. They appear to depend on the tension of the walls of the organ by the abnormal development of gas which takes place, as we see by the relief which the patient obtains by its eructation. Although I do not deny that cancer of the stomach as such can give rise to severe pain, and especially where the peritoneal covering becomes involved, yet, as far as my experience goes, I am forced to maintain that true attacks of gastralgia, such as are observed in ulcer of the stomach, are rare in gastric cancer. The disturbance of the digestive functions of the stomach is not without its influence on the activity of the intestine. The peristaltic action of its muscular coats is very often impaired, and, in common with other affections of the stomach, cancer is often accompanied with a tendency to constipation; just towards the end of the patient's life obstinate diarrhœa is not uncommon.

If we now turn to the symptoms of cancer of the stomach, so far as they are dependent on the cancerous nature of the disease, we find that all observers have insisted most strongly on the importance of proving the existence of a *cancerous tumour* in the stomach; and there is no doubt that they are right, but it is not at all easy to discover by palpation tumours which develope in that organ when in its normal situation and in its normal relation to surrounding organs. If the stomach shrinks so as to be under cover of the liver, we may not be able to reach it with the fingers at all. The examination is often, however, rendered easier by the fact that the pyloric cancers, which are of such frequent occurrence, often sink down in the abdomen, owing to their size and increasing weight, provided there are no adhesions to prevent them, and thus become more easily felt. But even when we can make sure of the presence of a tumour, there may be considerable difficulty in deciding whether it belongs to the stomach or not; and this is especially true of those tumours which originate in parts of the stomach other than the pylorus. Thus Lebert met with a case of carcinoma of the fundus of the stomach, and of its anterior and posterior walls, which, in size and position, closely resembled a splenic growth. It is necessary, further, to remember that there are many cases of cancer of the stomach in which it is impossible to discover by the most careful examination that there is a tumour in the gastric region, owing either to the small size of the growth, or to its being protected by some other organ, especially the liver, or to some other cause. If we are able to prove that there is a tumour, and that it is connected with the stomach, the next thing is to make sure that it is of a cancerous nature. Hard, uneven, painful growths should make us especially suspicious of cancer, but such qualities should not be considered as affording absolute certainty, either in a positive or negative sense. When in such cases you assume the presence of a cancerous tumour in the stomach, you found your conclusion on an imperfect induction of the same kind as that on which we are, unfortunately, obliged to found a large part of our diagnoses—that is to say, you assume that because something has been so in a hundred cases it will be precisely the same in the hundred-and-first. From what I have above stated, you will be able to judge for yourselves of the difficulties, both great and small, which we have to encounter in deciding the question whether we have to deal with a cancerous tumour of the stomach. For my part, I believe that it is scarcely possible to reach more than a high degree of probability in the diagnosis. If it were possible to detect particles of the cancerous structure in the vomited matters, we might be able from that symptom to strengthen our diagnosis, but for my own part I have never succeeded in detecting them, although I formerly spent much of my time in the careful examination of the fluids thrown up by patients with disorders of the stomach; and I am afraid, therefore, that such

examinations will aid you little in a diagnostic point of view. One symptom, however, is not unfrequently the result of cancerous ulceration of the stomach—namely, the vomiting of blood, either pure or mixed with food, either abundant or in merely trifling amount. This symptom is a most important one, if we are able to prove that a *new growth* in the stomach is the source of the blood, since growths in that organ other than cancer seldom give rise to hæmatemesis. But if we cannot prove that there is a growth, we must remember that every ulcerative process in the stomach, and every rupture of a bloodvessel from other causes, *e.g.*, owing to a local or general elevation of blood-pressure, can give rise to vomiting of blood. Experience teaches us that scanty hæmatemesis in the form of the so-called "coffee-ground" matter is observed in many cases of gastric cancer towards the end of life; for it is characteristic of cancerous ulcerations that they chiefly destroy *small* vessels, and so give rise to capillary hæmorrhages, whereas perforating ulcer chiefly eats through the larger vessels. I must warn you, however, that occasionally there may be such profuse hæmorrhage in cancer of the stomach as to cause almost immediate death, and the patients may even expire of the internal bleeding without a drop of blood being voided externally. Such a case has been reported by von Dusch of Heidelberg (*Bericht über die Med. Poliklinik zu Heidelberg*, 1857-59, page 80). Such an accident is, however, rare, and generally before they die patients with cancer of the stomach fall into an extremely low and emaciated condition, which we may equally well ascribe to the impaired function of the stomach as to the presence of cancerous affection of the organ. With regard to the so-called cancerous cachexia, we may say that its development is more rapid in proportion (1) to the speed with which the cancer grows, and to the number and extent of metastatic deposits in other organs, (2) to the carliness and extent of the accompanying ulcerations and hæmorrhages due to the destruction of vessels, and (3) to the violence and duration of pain. In the case of the stomach, the interference with its digestive functions and the deficient assimilation of the food which enters it are additional conditions which help to intensify the disturbance of nutrition caused by the cancer. Some authors have endeavoured to distinguish between a cancerous and a non-cancerous cachexia in stenoses of the gastric orifices, but for my own part I am unable to admit the possibility of making such a distinction. I, however, agree with Biermer, who has advocated this view, that cachexia in a person with a stomach affection is, *per se*, of greater diagnostic value the less the functions of the stomach appear to be impaired, and the greater the disproportion existing between the intensity of the nutritive disturbances and the gastric symptoms. Kaulich has attempted to explain the indefinite feeling of illness, the sense of fatigue, and the depression which occur in numerous diseases that are accompanied with dyspepsia, including gastric cancer, on the hypothesis that they are due to the absorption of acetone into the blood from the stomach, this substance being probably the result of fermentation of grape-sugar in it. I allude to this theory of so-called acetonæmia because Kussmaul has lately shown that there is no experimental difficulty to prevent its acceptance.—(*Deutsches Archiv für Klin. Medizin.*, s. 42, Band. 14.)

I have attempted in the foregoing remarks to picture to you the main features of an ordinary uncomplicated cancer of the stomach, and I must now refer to some complications of the primary disease which are occasionally liable to occur, and which are of great interest owing to their affecting the abdominal cavity, and so removing all doubts of the correctness of our diagnosis, since they render it possible for us to distinctly recognise some of the secondary cancers as such by means of palpation. This is especially true of cancer of the liver; for when we can feel the umbilicated nodules on the surface of that organ, we can, in the first place, be almost absolutely sure that we are dealing with hepatic cancer; and, secondly, owing to the extreme rarity of primary cancer of the liver, we can be pretty sure that the liver is here *secondarily* affected. This discovery will be of especial value in those cases in which the hepatic disease developes under the observer's eye in the course of an obscure gastric affection, but its importance is much less in diagnosing a primary cancer of the stomach, if the liver-cancer is already developed the first time the patient comes before us; for here we can, in the first place, only rely with a tolerable probability (about as one to two) on the tolerably frequent combination of the disease in the two organs; and, secondly, on the gastric symptoms which are present: while, on the other hand, the increase in size of the cancerous liver either renders it extraordinarily difficult, or even quite impossible, to recognise a tumour of the stomach. Nor must we lay too much stress on gastric symptoms in a case of cancer of the liver as proving that the origin of the cancer is in the stomach, for, as Budd, Frerichs, and Murchison have pointed out in their works on the liver, vomiting, as well as other signs of disturbed gastric function, may occur in cancer of the liver which is not secondary to that disease in the stomach. I have spoken further back of the amount of weight which vomiting of blood should carry with it towards the diagnosis of gastric cancer, and I must here add that severe gastric symptoms with repeated vomiting of coffee-ground matter may occur in cancer of the liver without the source of the hæmorrhage being due to a cancer in the stomach at all. Such a case lately came under my own notice. A woman of fifty had all the signs of cancer of the liver when she was examined. For some months she had suffered from repeated sickness, which was independent of the time at which she took her food. In the last ten days of her life she not only had repeated attacks of coffee-ground vomiting, but also her stools were black. At the post-mortem, numerous cancer-nodules were found in the liver, and a mass of colloid cancer in the left ovary; the vena porta was firmly compressed by a number of lymphatic glands in the hilus of the liver; the stomach was healthy, and only showed a number of ecchymoses, which were doubtless the source of the trifling hæmorrhages observed, and which must have been caused by the impeded venous circulation in the stomach owing to the compression of the vena porta.

The cancerous growth may extend to the peritoneum, and excite peritonitis and serous exudation into its cavity. There is generally more pain with small amounts of exudation than with large effusions. Cancers of the peritoneum are not generally easy to make out by palpation; on the other hand, when the great omentum is involved, it may often be felt as a thick transverse tumour below the stomach, owing to the contraction which occurs in it as the new growth invades it. In a few cases, when a cancer extends from the stomach to the transverse colon, with the formation of a gastro-colic fistula, it is possible to determine the existence of the latter during life, owing to the appearance of fæcal vomiting without any signs of intestinal stricture, and especially through the early appearance in the stools of food taken into the stomach. In these cases the passage of the acid contents of the stomach directly into the colon produces violent irritation, and often profuse diarrhœa.

Cancer of the stomach may be associated with a variety of other diseases. Pneumonia is not at all a rare complication of it, no more is phthisis, nor a number of disturbances of nutrition in various important organs, which are due to the impaired condition of the blood—*e.g.*, fatty degeneration of the cardiac muscles, of the renal epithelium, etc. It is evident that such changes must react unfavourably on the primary disease, and tend to make its course more rapid. The duration of gastric cancer varies much in different cases, and is difficult to determine with accuracy, since it is impossible to say how long the disease began before the first symptoms appeared. The hard forms of cancer generally have the slowest course, just as they have in other organs. The disease never lasts longer than a few years, often less than a year, or even only a few months. The recognition of cancer of the stomach as such is generally possible in the advanced stages of the disease, and post-mortem examinations far more frequently confirm the diagnosis made during life than disclose an error in it. Those cases are the easiest to interpret in which the new growth causes narrowing of the cardiac or pyloric orifices of the stomach; and if we can exclude cicatrices due to poisoning by caustic fluids, we may be almost absolutely certain that a stenosis of the cardia depends on a malignant growth. Stenoses due to pyloric cancers, and accompanied by dilatation of the stomach, render the diagnosis a much more complicated affair, because there are a number of morbid conditions other than cancer which may produce the same collection of symptoms. Of these I can only here offer a few words on the stenoses which follow ulcers of the stomach, reminding you *en passant* that there is a pure fibrous degeneration or cirrhosis of the organ which is extremely rare, and is said to localise itself especially in the pyloric region. The distinction between a stenosis due to cancer and one due to ulcer depends very much on our obtaining an accurate history of the case, especially if the phenomena observed can be traced back for several years. Cicatricial

strictures may be traced back, according to the data which Luton has collected, five, eight, twelve, or even seventeen years, so that the difference in the duration of the two diseases is extremely marked. You will be able, from what I have already said, to judge of the importance of considering the age of the patient and the possibility of his having inherited a tendency to cancer, in making a diagnosis. In a few cases it has been possible to render the cancerous nature of the disease in the highest degree probable, where there was enormous dilatation of the stomach, by the use of the stomach-pump, which rendered it possible to feel a tumour in the pyloric region after the removal of the contents of the stomach, whereas it could not previously be felt. In those forms of cancer which affect the body of the stomach, and convert it into a thick, unyielding capsule, it may be possible, if the liver is not very large, to make out the thickened wall by palpation, and even to determine the smallness of the organ by distending it with carbonic acid gas. In such cases we are pretty safe in making the diagnosis of a fibrous cancer (*Faserkrebs*), since the other forms of cancer scarcely involve so large a portion of the stomach. Cases in which the cancer is situated in other parts of the stomach—*e.g.*, the lesser curvature or the posterior or anterior wall—are much more difficult to diagnose. If the disease is very circumscribed, there may be no accompanying catarrhal symptoms, and only most trifling objective and subjective symptoms. I cannot, however, warn you too strongly not to think that the diagnosis of gastric cancer is the only possible one to make in the case of old people with urgent gastric symptoms and emaciation. You cannot be too careful in forming your opinion in such cases. Phthisis, with an insignificant amount of cough, is especially liable to lead to such diagnostic errors. The post-mortem reveals a number of disseminated foci of disease in the lungs, which may have completely escaped detection by physical examination. The patient's age, the severity of the gastric symptoms and the trifling nature of the pulmonary, the mode of development of the gastric symptoms and the way in which they react on the organism at large, may explain our suspicion of there being a cancer of the stomach, *but not justify our false diagnosis*. At its commencement, the diagnosis of cancer of the stomach can only be presumptive. If there are decided symptoms of any kind, we may assume that the disease is already seriously advanced.

If we turn now to the treatment of this disease, we are at once met by two difficulties—first, that our diagnosis is so uncertain in its early stages; and, secondly, that we cannot reach the seat of the new growth and destroy it, or at least temporarily arrest its progress, as we can in the case of some external cancers. The gastric juice, which Schiff has recommended as a caustic in the case of the latter, is, as Virchow has shown, of but slight efficacy when it attacks the diseased surface of the stomach itself. The ulcerated surface may be rendered clean by its action, so that either a partial or total cicatrisation may result, but in spite of this the new growth continues to spread in the parts around. Although all remedies that have been tried at present, including the condurango bark, have failed, we ought not to give up all hope that a specific for cancer may be some day discovered. It is impossible to say whether the fact that cancer of the stomach is extremely rare in certain countries (Egypt, Vera Cruz) may not be made of some therapeutic use; at any rate the subject is worthy of continued attention. Von Beneke has recommended the treatment of cancer with non-nitrogenous food, and with such stimulants as wine and tea (*Tageblatt der Naturforscherversammlung*), and although he starts from purely hypothetical premises, his method may be worth a trial in dealing with a malady for which there is as yet no cure. At the present time our treatment must be purely symptomatic. The dietetic management of the patient is all-important. In stenosis of the pylorus with considerable dilatation of the stomach, the use of the stomach-pump has in some cases afforded remarkable relief by unburdening the organ of the mass of stagnant and fermenting food which it contained. While, however, some patients are able to tolerate the instrument day after day, on account of the after-comfort which they derive from it (in one case Kussmaul used it ninety-seven times), others are so much exhausted by the operation, or so little relieved by it, that it is impossible to continue it. In this latter class of cases the patients do best under the use of remedies which arrest fermentation in the contents of the stomach. I have found ten to fifteen drops of benzine given in mucilage, and still better an aqueous solution of carbolic acid (0·5 to 150), a tablespoonful five or six times a day, of extreme value. They diminish the frightful eructations of sour-smelling gas which rob the patients of their night's rest, and which narcotics do not in the least alleviate, and for the time they may completely arrest them.

In stenoses of the cardia, as soon as the diagnosis is tolerably clear, all attempts at passing a sound into the stomach must of course be abandoned, otherwise the consequences may be most serious. All we can do here is to nourish the patient by enemata, according to Leube's method (*Deutsches Archiv für Klin. Medizin.*, x. Band.), as long as possible. In dealing with a cancerous stomach, gastrotomy has nothing to recommend it. Where the orifices of the stomach are not involved, although the peristaltic movements must necessarily be considerably impaired, yet so long as the growth remains localised, and the patient is not exhausted by hæmorrhages or other accidents, the general symptoms may be less urgent. Sometimes it may even appear as if the patient's only malady were a severe chronic catarrh of the stomach. The treatment of this catarrh, and especially of such symptoms as the extreme anorexia, the nausea, and the vomiting which characterise it, must then be our chief object. The best practice seems to consist in giving small quantities of food at frequent intervals, followed by two or three tablespoonfuls of very dilute hydrochloric acid (0·4 per cent.). In such cases I have also seen transient benefit from small doses of iodide of iron in combination with bitters, the iodine apparently acting through its antiseptic and anti-putrescent qualities. In this way the harassing pain and discomfort caused by the perversion of the digestive functions have been much relieved. I warn you against giving narcotics too early. No doubt they are the most convenient remedies, but I have often noticed that patients improved remarkably and seemed quite to revive after narcotics had been left off and the catarrhal condition of their stomachs had been properly treated. Unhappily the time comes but too soon when such drugs can no longer be dispensed with. Even in this stage you must not fold your hands, but you must still strive, by means of a careful treatment of symptoms and by exercising an intelligent supervision, at any rate to diminish the terrors of a disease that you cannot cure.

Effect of Cold on the Formation of Cream.—In a paper read at the Académie des Sciences, M. Tisserand states that when milk is submitted, soon after milking, to various temperatures from 0° to 36° C. (32° to 98° Fahr.), and the same temperature is kept up for twenty-four hours, the following results are obtained :—1. The production of cream is rapid in proportion as the temperature to which it has been exposed approaches zero. 2. The volume of cream obtained is greatest when the milk has been exposed to the greatest cold. 3. The production of butter is also greater. 4. The skimmed milk, butter, and cheese of milk so treated are all better. These facts show how erroneous are the ideas that prevail in France on the production of cream and butter, that milk intended to be skimmed should be kept at a temperature of 12° or 13° C., and not allowed to descend below this temperature, under the idea that the rising of the cream is thus favoured.—*Gaz. Hebd.*

Case of Successful Transfusion of Milk.—Prof. Gaillard Thomas relates, in the January number of the *American Journal of Medical Science*, an interesting case of "Double Ovariotomy performed for the Removal of Solid Ovarian Tumours." The patient, by reason of recurring uterine hæmorrhage, was after the operation reduced to a very low point, and appeared to be sinking from sheer exhaustion, her stomach being unable to retain any food. Four days after the operation, dissolution seemed to be approaching, and it was decided to try the effects of transfusion. Three cases of transfusion with blood having rendered Dr. Thomas very averse to the employment of this fluid, he resolved to employ perfectly pure, fresh milk instead, having remembered some cases of Asiatic cholera so treated with success by Dr. Hodder of Toronto, who injected as much as fourteen ounces at one sitting, with good results from the first. In Prof. Thomas's case he slowly injected, by means of Colin's apparatus, eight ounces and a half into the median basilic. Although soon after the operation the pulse was between 150 and 160, and the temperature 104°, matters soon mended, the patient falling into a sound sleep, and all alarming symptoms passing away. The report comes down to six weeks after the operation, when she was quite well and gaining flesh.

ORIGINAL COMMUNICATIONS.

CASES OF OBSCURE NERVE DISORDER.

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(*Continued from page* 649, *vol.* ii. 1875.)

No. XV.

TWO CASES OF SPINAL IRRITATION, WITH CLINICAL REMARKS.

Case 1.—E. T., aged thirty, housemaid, admitted March 13, 1875. States that last May she was nursing a heavy man, in lifting whom she had to assist; and in doing so she strained her back. Before this she enjoyed very good health. Has been living low lately, and wearing a large plaster over the lumbar and sacral spine, which has done her some good. She complains of pains in the head, and her sight is impaired at times. The cervical spines are not tender, but the dorsal are decidedly so, and the lumbar and sacral extremely, so that she flinches very much on light percussion. The pain in the spine is aggravated by very slight excitements, such as being read to by a visitor, the door of the ward being shut; it is much increased by even the slightest exertion, such as a deep inspiration. No distortion of spine. Right breast is not painful, but she has sharp pain passing right through left. She gets but little sleep at night, only one hour and a half. Expression of face distressed. Catamenia regular, very pale; much dysmenorrhœa. Bowels very costive. Is not anæmic. Pulse small and weak. Urine is thick at times, is now copious and of light colour. Ordinary D.; port four ounces. Ferri carb. saccht. gr. xx. bis die; ammon. carb. gr. iv., pot. iod. gr. j., tinct. valerian ʒ j., inf. valerian ℥j., ter die.

March 18.—Says the spine in lumbar region feels like a sore; any noise is felt there. Severe pain is felt during defæcation, but there is no rectal fissure to be seen, only the mucous membrane is congested. Back feels better in dorsal and cervical regions. Pt. ether spray to back for five minutes a day; cold sponging to anus.

22nd.—Says that her back is very much better, but that the ether spray causes much smarting and burning, lasting one hour or more. She spits up some bloody fluid every morning; it comes up with a sort of retching; she does not bring up food. Good full breathing is heard in both upper fronts and backs. A systolic bruit at mid-sternum; at apex, sounds are normal. Tannin spray to throat.

30th.—Back continues much better; does not smart near so much; can bear gentle percussion of dorsal spines, but not of the lumbar. Sleeps very well. Pulse 114, weak; temperature 99·7°. She complains of getting very hot and flushed after taking any food; is now quite in a sweat, her hands hot, although the air is cold, the wind being in the north-east. Still brings up a little red-tinged fluid. Catamenial period is near; she had "agonies of pain" in lower abdomen yesterday, but less to-day. Ether spray left off. Extract. belladonnæ gr. ss. quater die.

April 1.—No catamenia; no pain to-day; vision affected by belladonna.

5th.—Pains have all passed off; no catamenia have appeared; has had no pain in back, not even in sore part, last three days; can bear to have her back gently percussed, only there is a feeling of giving way in it.

8th.—Expectoration of bloody fluid continues. No pain in back, only it feels weak in lumbar region. Empl. opii spinæ lumbali.

12th.—Finds much comfort and support from the plaster. Is up and about.

19th.—Breath very short on exertion; her legs ache, and she is very giddy. Ferri et quin. citrat. gr. xii., aquæ ℥j. t. d. Plunge bath.

26th.—Improving; asks for meat.

May 3.—Gaining strength daily; can go up and down to the garden from the ward; but her lumbar spine is still rather tender to percussion. Went out soon after.

Case 2.—E. C., aged thirty-two, dressmaker, was admitted October 18, 1875. She had an attack of hemiplegia of the right side three years ago, when she lost power of speech and power in right arm, but her right leg was not affected; she soon recovered. Last Christmas she had a return of disorder, since which time her right leg has been affected with numbness; she has very little power with right arm. Percussion commences to be painful at upper part of dorsal spine, and continues so as far as the sacral region, where the tenderness diminishes. Pain is felt when a fold of skin is pinched up on either side of spine. Heart-sounds quite normal; pulse very weak and small; catamenia not excessive. Has had four miscarriages; since the last, which occurred about May 17, she has been gradually getting worse. Ammon. carb. gr. iv., ammon. ferro-citratis gr. x., tinct. calumb. ℥xv., aq. ℥j. ter die. Ordinary D.; beef-tea, milk, port ℥iv.

October 23.—Is low; cries a good deal. Bowels costive, rectum loaded, uterus normal. Ol. ricini enema.

25th.—Has much difficulty, she says, in passing her urine, which is neutral; deposits a copious sediment not dissolved by HCl, consisting of mucus and a small-celled epithelium, probably vesical. Has lost the pain in her back. Bowels well opened.

27th.—Can evacuate bladder more freely; walks much better; seems pleased to show her improvement.

30th.—Some tenderness still about the fourth and fifth dorsal spines. Can walk about twenty yards; can use her right hand in cutting up her food; and her speech is improved. Says she is dreadfully nervous; left angle of mouth a little drawn up, right a little lowered, tongue a little deviated towards right.

November 8.—Back not at all tender now; speech tolerably perfect; tongue put out straight; both temporal muscles act; can cut up her meat with her right hand, which she could not do on admission; and can sew a little. Both sides of face move. Walks still very halting on right leg. Was faradised the other day, and could not walk so well after. It was stated by the ward-sister three days later that she walked much better when no one noticed her. The left angle of mouth was still a little raised. Phosphorus was ordered, which was beneficial, and she went out soon after.

The foregoing cases are not only well-marked examples of a recognised disorder, but of one which represents a definite pathological state, and are therefore worth some attention.

1. In the first, a strain of the back was the assigned cause of the malady. So it was in a case recorded at p. 464 of my work, and also in that of a medical friend who suffered severely and persistently with symptoms of paresis of the cord after spending several hours stooping over the bed of a woman in labour. Yet in the majority of cases of spinal irritation and analogous disorder no such cause is apparent. Perhaps it is only effective in cases of neurotic diathesis. At the same time, it is well to bear in mind Hasse's dictum, that, "far oftener than is usually supposed, spinal tenderness is caused by disease of the vertebral column."

2. The existence of acute spinal tenderness is so far from being a symptom of inflammation of the cord, that (if it exists alone) it is almost decisive of the non-existence of myelitis. Case 2 certainly presented some actual paralysis of the right arm and leg, and even, though very slight, of the right side of the face; but these did not seem to depend on any organic lesion, but to be of a functional character. They were absent in Case 1, where the spinal tenderness was far greater, and, indeed, they constitute a rather unusual complication. The pain in myelitis is mostly in the lower limbs, and what there is in the spine itself is never of great severity. In spinal meningitis the fits of pain along the spine and in the extremities are produced by movement, and are attended with muscular spasm, but are quite different from the abiding extreme tenderness of the spines in the neurotic disorder, which is neither induced by, nor succeeded by, muscular action.

3. The exquisite sensitiveness of the sensory nerves of the spine, either those of the bones or the covering tegument, especially in the lumbar region, was very remarkable in the first case. Every slight excitation of sensory nerves, even those of hearing, produced a morbid *rétentissement* in the hyper-excitable part. The patient's own comparison of the state of her lumbar spine to a sore was very just. Impressions affecting this region were as ill-borne as those lighting upon "a raw." It is unfortunate that we have not yet discovered by our microscopes what is the molecular change which conditionates hyperæsthesia, but I suppose that even

the strictest positivists in pathology, who scorn the humoral views and vagueness of their predecessors, will admit that there may be some very real change in a tissue which is not declared to the eye by any perceptible tokens. Hammond considers the essential pathological condition in spinal irritation to be anæmia of the cord depending upon irritation of vaso-motor nerves. Anæmia, he says, causes the irritability, and the irritation thus established has a secondary influence upon the sympathetic, resulting in the visceral disturbances that constitute so important a feature of the disease. Mr. Teale takes the opposite view, that the spinal irritation depends upon an hyperæmic condition of the bloodvessels at the origin of the spinal nerves, and adduces in confirmation the fact that local depletion by leeches or cupping, and counter-irritation, are the principal remedies. If I were obliged to adopt one or other of these views, it would be the latter, as it seems most accordant with facts; but I rather believe that the malady is essentially dependent on neither anæmia nor hyperæmia, any more than a sciatica or any other neuralgia is. The absence of spinal hyperæsthesia in many cases of most marked general anæmia constitutes a strong objection to Hammond's view.

4. The absence of abnormal movements in the majority of cases of spinal hyperæsthesia is remarkable. We cannot but think that the morbid impressions transmitted from the seat of pain must be diffused through the nerve-cells of the cord, and, if so, that the motor cells would respond to the stimulus. Sometimes this is the case, and muscular contractions or convulsive movements ensue, as described by Dr. Radcliffe and the Griffins. But for the most part, I think, we find spinal hyperæsthesia and spinal hyperkinesia existing quite separately. In chorea and in allied states there is little or no spinal tenderness, and in the cases we are considering there are usually no clonic or tonic spasms. Dr. Radcliffe relates an illustrative case of spinal irritation, in which there was great weakness of the legs, and one leg seemed to drag immediately before the contractions came on. In my second case the spinal tenderness was associated with functional paralysis of the right limbs. The Griffins also allude to various degrees of paralysis in the extremities in cases of spinal irritation. Cerebral paresis was very marked in one instance I lately saw. Besides the spinal tenderness there was constant pain at the back of the head, with a sense of exhaustion and fatigue, and great depression of spirits. Any slight extra exertion caused most painful confusion in the head, with entire loss of memory for some hours, and inability to form sentences or spell correctly. The senses of smell and taste were lost to a very great extent. As the general health improved, the patient regained cerebral power very much, and quite recovered smell and taste. In my paper on Hyper-excitability and Paresis (vide *British Medical Journal*, March, 1874), I have dwelt on the intimate connexion between these states, the latter being, as Waller's experiment of refrigerating the ulnar nerve shows, only a higher degree of the former. In states characterised by depression of the nerve-force, we may, therefore, well expect to meet with varying phenomena, some approximating more to the one type of morbid action, and some to the other. Yet all being, *au fond*, of the same nature, need to be dealt with in the same way, viz., by recruiting the nerve-force; though very different remedies may be requisite in different exigencies.

5. The good effect of the ether spray in calming the spinal hyperæsthesia in the first case was very apparent. One cannot but call to mind the similar calmative action of the spray in some severe cases of chorea (*vide* one recorded in the *Practitioner* by Dr. Anstie). Probably it will be found serviceable in analogous disorder of other regions.

6. In the first case the occurrence of pseudo-hæmoptysis, and in the second of temporary retention of urine, are significant tokens of the presence of that state of the nervous system which we denominate hysteria, although all traces of paroxysmal disorder were absent. Though the mimetic may certainly be blended with real disease, yet it is always desirable to recognise the features of the former, that we may not form a wrong estimate of the pathological situation by attributing the symptoms which it produces to the latter. I would say, however, in testimony of my entire belief in the thorough genuineness of very many, if not most, of the cases of spinal hyperæsthesia, that one of the greatest sufferers I ever saw from this affection was a lady who had given the most remarkable proofs of strength of will, and of bodily and mental energy, even while thus afflicted. Certainly, in her case there was no defect of volition; nor is there, I believe, in most others.

CLINICAL REMARKS ON PHTHISIS PULMONALIS,

GIVEN TO THE STUDENTS OF THE ROYAL HANTS COUNTY HOSPITAL.

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(*Concluded from page* 32.)

HAVING passed under review the varieties and symptoms of phthisis, let us now consider those signs which more certainly indicate the advent and progress of the disease. Important, unquestionably, are the symptoms of phthisis, inasmuch as they give us a general idea of the course of the complaint; but still more important are the physical signs which we obtain by percussion and careful stethoscopic examination of the chest, because we are thus enabled to state with certainty the actual amount of disease present in the lungs.

I have already told you that great care and method are required to make this examination successfully. As a general rule, I would advise you first of all to notice the form and general conformation of the chest: look particularly for flattening of the thoracic surface below the clavicles. Then get your patient to take a deep breath, and observe if there is any deficiency of expansion of one or both sides. For all practical purposes this will be apparent enough; but if you should have any doubt, place the forefinger or thumb of each hand upon corresponding spots on either side, then get your patient to breathe, and notice whether the fingers or thumbs rise and fall together to the same extent. Now proceed to percussion, and afterwards examine with the stethoscope.

In the primary stage of phthisis the dorsal vertebræ will be found curved, and the chest flattened, involving the sternum down to the ensiform cartilage, and the four or five upper ribs of the affected side. This flattening is, however, not always present in the first stage; it is more frequently found, as I shall have to tell you presently, in the third. Then, again, there are other diseases in which you get a flattened condition of the chest-walls—as, *i.e.*, in some cases of heart disease; or in cases of aneurism, or other tumour in the chest, where, pressure being made upon the bronchus, air is prevented entering the lung. Then there are a few instances which depend upon some congenital conformation, or upon the occupation or trade, or upon lateral curvature of the spine. A distorted chest is, however, not so frequent in this stage as when the disease becomes more advanced; it is commonly believed that a depressed, narrow chest more frequently encloses tubercular mischief than a healthy, capacious one. I would guard you against this error. Comparatively few distorted chests are found amongst phthisical patients. It is true that the chest in phthisis, particularly when the mischief has advanced, is frequently the subject of alteration in form, but this is the result, not the cause, of the tubercular deposit. The movements of the chest in the first stage of consumption are frequently altered from the normal condition. The number of respirations may be increased, and the abdominal muscles may act more violently, yet the elevation of the upper ribs in their healthy condition is reduced. In the act of respiration you will observe the ribs advance less forward, and expand still less laterally, than in health. Again, normally the ribs have an independent movement—they seem to move at the points of their attachment to the spine and sternum respectively; but when tubercle is present, they are all lifted together, moving more as one piece than is usual in health. This deficiency of motion in the chest is confined to the ribs over the diseased lung, and is often very apparent in the latter part of the first stage, but it becomes more and more developed as the malady passes through its second and third stages. When this deficiency of motion does occur on the diseased side, the movements of the opposite side are greater than is usually observed in healthy persons, more particularly at the upper part and lateral regions. This is purely compensatory, the sound lung expanding more because it is doing double work.

Percussion, although of some value in the early stage of consumption, is not nearly so important as auscultation, as disorganisation of the lung will be detected by the stethoscope long before there is any impairment of the percussion-note. At the very commencement of phthisis, when for many reasons it is most important that the presence of tubercle should be indicated, percussion as a test comes later than auscultation, and is therefore of less value. Auscultation supplies the first evidence, and

then percussion confirms the diagnosis. At first the resonance is modified, the note is less clear than that produced upon the corresponding spot on the other side of the chest; the impairment of the percussion becomes greater, and keeps pace with the progress of the deposit. As the lung becomes more solidified in consequence of the tubercular deposit, so does the resonance decrease *pari passu* until there is absolute dulness. The earliest seats of reduced-air character in the percussion-sounds are precisely those selected for the primary deposit of tubercle. You know the favourite seat of tubercle in the first stage of consumption is the apex, and it is here the percussion-sound is first noticed defective in the supra-clavicular region; but if the patient is corpulent you will fail to notice this alteration of sound there, but it may readily be detected in the clavicular or sub-clavicular regions. I believe, however, you will get the most reliable evidence of tubercle by percussion of the first and second interspaces: here the alteration of sound is generally simply short, non-vibratory, and deficient in loudness. It is as well to percuss the supra-scapular and scapular regions: sometimes dulness is noticed here, but, owing to the mass of soft parts and the scapula itself, great obstacles exist to the emission of the lung-sound. Sometimes impaired resonance may be detected in the inter-scapular region when no alteration of sound has been obtained in the supra-scapular or scapular regions. This alteration in the percussion-note of the chest is at first confined to one side; if both sides are less resonant, the dulness is more marked on one side. At the commencement of the first stage the difference between the two sides may be comparatively slight, but as the disease advances the dulness increases until a marked contrast is established, forming a diagnostic point of the greatest importance. When this is present, and when the characteristic signs of other diseases are absent, it is almost conclusive evidence in every case of the presence of tubercle. I therefore strongly impress upon you the importance of carefully comparing the sounds produced by percussing both sides of the chest. Still, I want you also to notice the fact that, long before any difference is detected, a great amount of disease may be present, and that therefore it would be most unwise, as well as most dangerous to the patient, to conclude that because no contrast can be made out, therefore the lungs are free from tubercular deposit. Another point to which I want to direct your attention, is that sometimes dulness exists in the very places where I have told you we must look for impaired percussion from tubercular deposit, either from the presence of a large quantity of fat, or from a great development of the pectoral and other muscles, or from these muscles being in a state of tonic spasm or rigidity. Now to sum up all these facts. The dulness in the primary stage is moderate, or at most comparative, never amounting to absolute dulness, and thus differing from the dulness (which is absolute) caused by cancer of the mediastinum, aneurismal or other tumour in the chest. Then the *locale* of the dulness it is important to notice. In phthisis the altered sound is found at the apex of the lung, in the supra-clavicular, clavicular, and infra-clavicular regions; whilst the dulness of aneurismal or other tumours is usually confined to the centre of the thorax, embracing the sternal region, and extending one or two inches to the right or left of the breast-bone; and, lastly, the general symptoms the patient presents will do much, when taken with the impaired percussion, to assist in arriving at a correct diagnosis.

The stethoscope reveals to us, in the early stage of phthisis, certain deviations from the ordinary vesicular murmur, the very first being a harshness and loudness, followed, after a time, as the deposit increases, with a certain amount of deficiency: associated sometimes with this is a peculiar click or crackle, which may be imitated by placing the lips, previously moistened with saliva, in contact, and then suddenly separating them. The vesicular murmur which is heard over a healthy chest is like a gentle rustle, being uniform and continuous. This in the primary condition of the disease becomes altered: the murmur is not of the same intensity throughout, it rises and falls in a wavy manner during the inspiration, and has been called wavy respiration. Frequently, instead of the inspiration being undulating, as first described, it is observed to be divided into several distinct and separate parts. This is described as divided or jerky respiration. The inspiration is followed by a long expiration.

You must be careful in your diagnosis of these varieties of the inspiration-murmur; frequently they exist without any tubercle being present in the lungs. The act of inspiration in nervous, hysterical girls is often irregular and undulating. This, however, is heard all over the lung, whilst in phthisis it is detected only at the apex. Again, in hysteria or nervousness it is variable, not being always present, whilst in phthisis it is constant. And thirdly, in nervousness you get no prolonged expiration; in phthisis, you will remember, you do.

The expiratory bruit also undergoes a change; normally it is much more feeble than the inspiratory murmur, and sometimes requires great care to detect it at all, but in incipient phthisis it becomes much louder, and approaches in intensity that of the inspiration. As the deposition of tubercular matter increases, so does this loudness of the expiration increase, until, instead of being less than the inspiratory murmur, it becomes five or six times louder. Associated with this is a harshness and prolongation, but not to such an extent as in cases of bronchitis or asthma. When the amount of tubercle is very great, so as to block up more or less the air-vesicles, the bronchial tubes being still patent, a bruit is produced quite different from the ordinary vesicular murmur, which is called bronchial respiration or tubular breathing; it is an intensified vesicular murmur, sometimes accompanied with a peculiar whiffing sound, and when associated with dulness on percussion, increased vocal fremitus, and loud voice-sounds, is confirmatory of tubercular deposit. There are a number of other sounds sometimes met with, and which I remember having had opportunities of pointing out to you in the wards, viz., wheezing, sonorous, and sibilant rhonchi, the dry and moist crackle or click, and a humming or buzzing sound. But before passing from this stage I want to say a word or two about the voice; this is an important adjunct to diagnosis, and when heard through the thoracic walls in this early period of the disease is found to be altered, constituting one of the earliest signs of the presence of tubercle. At first the voice is loud and unusually distinct; but as the bronchi become more and more compressed, owing to the pressure of the deposit, so does the voice become feeble and very indistinct. In the earliest period of the disease, when only a few tubercles are present, the voice remains normal; but as the deposit increases so as to compress the small bronchi, though still allowing the vibration of the main bronchi, then the voice will be found intensified, and more or less resembling the bronchial voice heard between the blade-bones: this is bronchophony. As the lung becomes more firm from the presence of dry tubercle or fibrine, the result of inflammation, the main tube being still free to vibrate, so you will get the voice strong and vibrating, and sounding as if it passed through a solid structure. As the tubercular deposit increases, pressing upon the large tubes and preventing their vibration, so does the voice decrease in intensity; this condition, therefore, you will detect more frequently towards the latter part of the first stage. These changes in the voice-sounds are best heard in the supra-clavicular regions and the corresponding part on the back of the chest. In these regions, also, you will notice associated with the abnormal sounds an increase in the vocal fremitus or vibration of the chest-walls.

The physical signs in the second stage, indicating the softening and breaking-down of the tubercular deposit and surrounding pulmonary structure, are much more marked than those of the primary stage. Moist or humid crepitation is the pathognomonic sign of consumption at this time. Once heard, it can ever afterwards be immediately recognised. You have had abundant opportunities of making yourselves familiar with this sound; it generally commences at the apex of the lung, and can be heard best in the supra-clavicular and supra-scapular regions, then in the infra-clavicular and mammary regions. Sometimes this crepitation becomes very abundant and loud, being more or less extensive over the whole lung. In these cases the expiration is very great, and hectic severe. Of this you have a good example in the case of the man D., in No. 2 Ward. He was admitted with disease of the wrist-joint. No mischief at this time could be detected in his chest, although his appearance indicated the possibility; but two days ago the nurse noticed he got very hot towards night, and perspired profusely. On examining his chest again, humid crepitation was heard all over the left side. When the crepitation is thus very abundant it almost always indicates an unusual activity of the disease, and generally a speedy fatal termination. The thoracic voice is most generally increased in this stage; but sometimes, owing to occlusion of the tube, it still remains small. Pleural friction-sounds are also frequently heard.

Percussion elicits a dull note. You have this well exemplified in the case I have before quoted in No. 2 Ward. Occasionally you get resonance, but this is only when the deposit is very small.

One other sign which is very common, and for which I can refer for illustration to the man D., is a moist crackling in the throat, more particularly during expiration. If we examine the throat, we shall most probably find the glottis thickened, the epiglottis roughened from ulceration, and the whole of the pharynx of a deep claret-colour.

And this brings me to the third stage. On examining the chest at this period we shall find it flattened and depressed. With the impulse of the heart at the second interspace on the right or left side (whichever may be affected), the sounds also will be found increased in intensity.

The percussion-note varies considerably in this stage; it may be only dullish, or the ordinary resonance may be but slightly modified, it being more or less of a short duration. Then, again, the note may be of a decidedly dull character, still not what we know as absolute dulness; we have the impression on listening that a certain amount of air exists beneath, although much less than normally. Or, thirdly, you may get absolute dulness, indicating the total absence of air in the pulmonary structure below. Frequently, accompanying the dulness, you will get a peculiar metallic note or cracked-pot sound, which the French call *bruit de pot fêlé;* this is caused by the air in a cavity being thrown into a state of agitation by the blow of the fingers, the cavernous walls being dense and capable of resisting the undulations of the contained air.

Upon auscultating a chest in which the lungs are excavated, numerous sounds may be heard: the cavity may be dry or moist, or, in other words, it may or may not contain fluid, and according as this is the case so do you hear dry or moist sounds. A very common variety of respiration in a dry cavity is from its want of character called "noiseless"; upon comparison with the healthy side the murmur is found much less intense. A more common variety is the blowing respiratory murmur: the expiration and inspiration have both more or less a blowing character, particularly the latter; the sound is harsh and loud, and on comparison with the other side is found much louder. With this you will often get rhonchus, creaking or crumpling sounds, or those of a sawing character. If the cavity is moist you get bubbling or gurgling, caused by the explosion of a bubble of fluid in a vomica containing some air; this sound is very distinct and most conclusive, and has often associated with it a metallic tinkling caused by the falling of some drops of fluid upon a thin layer of the same in a cavity containing air, and communicating with a bronchial tube. If the patient coughs you will get a splashing of the cavernous contents or concussion of them against the indurated walls; whilst, if the cavity be dry, upon the patient coughing you get a loud blast carried up the stethoscope into the ear: this is at once conclusive evidence of the presence of a vomica. The voice in this stage is also very much modified: it may be increased in loudness, or be unusually distinct and close to the ear, or in some few cases it may be suppressed. The first kind is very common when you are listening over a small cavity; the second variety constitutes what is known as pectoriloquy, and it is this form of voice which can be specially recognised when the patient whispers. If you will listen to the man's chest in No. 1 Ward in the corner bed, you will have a good example of this variety of thoracic voice. When it is present it most decidedly indicates a cavity; but you must not conclude that if pectoriloquy is not heard therefore the lungs are not excavated, for it is not always present. In this last stage of phthisis you will nearly always get pleural friction-sounds, owing to the inflammation extending to the membrane. The respiratory murmur is frequently reduced at the base of the unsound lung, and this is occasionally accompanied with sibilus or sonorous rhonchus. Sometimes the respiration is increased, as if to compensate for the deficiency of the apex. Upon listening over the trachea in this stage you may hear several abnormal sounds; a very common thing to notice is a peculiar clicking or ticking; there may be indications of constriction, or bubbling then sounds.

Dr. Alison makes a fourth stage of phthisis, when air is present in the pleura; this is called pneumothorax. On percussion you get a clear tympanitic sound, with very indistinct respiratory murmur; the voice and cough are also attended with a metallic, ringing echo, much resembling that heard when speaking under a stone arch. Owing to the frequent presence of fluid as well as air in the pleura, metallic tinkling and splashing on succussion are also heard.

In the treatment of phthisis, the first condition upon which you must insist is a residence in a dry and warm climate, and then the avoidance of all causes which would encourage the disease, such as an abstinence from callings in themselves unhealthy, and an indulgence in exhausting pleasures; pure air, nourishing food of an unstimulating character, early hours, and an avoidance of everything which would tend to care and anxiety. A sea voyage will sometimes be of the greatest advantage. Torquay, in our own country, is a very good resort for consumptive persons; whilst abroad there are Egypt and various places in the South of France. I cannot pretend to go deeply into this subject, but I would refer you to a useful little book on "Climate in Consumptive Cases," by Dr. C. T. Williams, where you will obtain full information. The diet should be nourishing. A cup of warm milk with a little brandy or rum the first thing in the morning is a very good thing. There is also no necessity for stopping all stimulant. A moderate quantity of wine may do good, and if the patient is used to malt liquors this may be allowed. Exercise short of tiring your patient will do good, and I know of no better way of getting this than by horse exercise. This is considered by some people quite a specific for phthisis. Then your patients should be warmly clad. A very good thing is to have a thin layer of cotton-wool over the chest, which may be stitched in the body of the dress. This does not allow of a too rapid evaporation from the body.

In the first stage you will find cod-liver oil of great value. This may be combined with tonics. The short hacking cough is much relieved by a little counter-irritation applied to the chest in the form of the tincture of iodine, whilst a simple linctus may also be administered with advantage. In the second stage you will find some form of counter-irritation most useful. The croton oil liniment is generally employed in this hospital. You must persevere with it until a good crop of pustules appear, when you will be much gratified by hearing your patient express himself as much relieved from the dragging, darting pains which are so common at this time. An effervescing mixture of ammonia I have also found of great service, as it promotes free expectoration. For the night-sweat you may give a pill at bedtime containing oxide of zinc and hyoscyamus, or a mixture containing dilute sulphuric acid, whilst the patient is also greatly refreshed by being sponged with tepid vinegar-and-water. In the latter stages cod-liver oil is of supreme importance. Commence its administration by giving a small dose, and then gradually increase the quantity. It is best taken after meals, and may be given in various ways: with orange wine, water, or milk. I have found children take it readily when mixed with a little orange marmalade, and to adults I always give it combined with some tonic—such as a mixture of dilute phosphoric acid and infusion of quassia, with one-thirtieth of a grain of strychnia, or ten or fifteen minims of the tincture of nux vomica to the dose. Iron and quinine are also useful tonics. The cough, which is sometimes very troublesome at night, is greatly relieved by a mixture containing two or three drops of hydrocyanic acid with syrup of squills and a few minims of solution of morphia; whilst the expectoration, which is most liable to clog about the chest at this time, is greatly facilitated by a draught of effervescing citrate of ammonia combined with three or four drops of antimonial wine. When hæmoptysis occurs, gallic or tannic acid, acetate of lead, or dilute sulphuric acid may be given; and in severe cases, dry cupping between the shoulders is often of service. Diarrhœa may be relieved by the ordinary chalk mixture; a very good mixture in these cases you will find composed of equal parts of decoction of hæmotoxylon and liquor calcis, with five-drop doses of laudanum; the compound kino powder of the Pharmacopœia, and starch and opium enemata, are frequently serviceable. For the aphthous condition of the mouth, a wash containing chlorate of potash and glycerine gives greater relief than the ordinary gargle of borax and honey; and inhalation of the steam of hot water, which contains a small quantity of the tincture of iodine is of great benefit in tubercular laryngitis.

ORIENTAL GRATITUDE.—A letter from Constantinople states that the Sultan, who had been seriously indisposed, has now perfectly recovered. His first act on convalescence was to raise his medical attendant to a rank equivalent to that of a General of Division, afterwards bestowing upon him a gift of £1000 (Turkish), as an acknowledgment of his services in successfully treating his Majesty for the carbuncle from which he was suffering.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GREAT NORTHERN HOSPITAL.

CASE OF PARALYSIS AFTER PARTURITION.

(Under the care of Dr. CHOLMELEY.)

[For the notes of the following case we are indebted to Mr. George Master, Junior Resident Medical Officer.]

M. J., aged twenty-four, married, was admitted as an in-patient under the care of Dr. Cholmeley, on July 12, 1875. Patient states that she was quite well up to Christmas-day, 1874. When she awoke on the morning of that day she found that she could not move in the bed. This attack lasted only a few days. Early in January she gave birth to a full-timed male child. Has no recollection of the circumstances attending her confinement, but her husband states that she was delivered by instruments. Shortly after her confinement she lost power over her legs, and was unable to retain her urine. There was no paralysis of the sphincter ani. Has been confined to her bed ever since. At times during her illness she has had slight power over the bladder, but only for a very brief period.

On admission, the left side of the face was found to be partially paralysed. There was loss of power, but not complete, of both legs and of the left arm; the power over the right was much less imperfect than over the left. There was no loss of sensation. She could draw up her feet, but could not lift her legs off the bed. The left arm was flexed, as also the hands and fingers. She could extend the arm with some difficulty, but could perform flexion easily. Quite unable to extend the fingers. When the elbow was placed close to the side she could abduct easily, but could not adduct without assistance. Breath-sounds feeble, heart-sounds normal. Urine alkaline, and slightly albuminous. Temperature 103·4°. Ordered a mixture containing iron and strychnine, and to have the bladder washed out daily with a weak solution of sulphurous acid.

August 2.—Remains in about the same condition, except that she has recovered some power over the bladder. Says that she does not feel ill. During August, September, October, November, and December the patient appeared to be slowly gaining ground. The treatment consisted of tonics, cod-liver oil, and faradisation. The bladder was washed out daily. The facial muscles and the deltoid of the affected side recovered their power to a considerable extent, as also the flexors and extensors of the thighs, and extensors of the leg. Urine still continued to dribble away at times. Whenever this occurred the patient was conscious of the fact. After the bladder had been washed out in the morning the patient sometimes retained her urine until the evening, and then passed it voluntarily. This, however, was the exception; usually the urine dribbled away. At times she had severe attacks of headache and a feeling of nausea, and she complained that she could not see so well with the left eye as with the right.

Always highly emotional, on the morning of January 19 she appeared to be unusually depressed, and cried almost constantly. About noon she was dressed, and sat up; but in a few minutes she became sick; and almost immediately afterwards she had a convulsive fit, and became unconscious. The pupils were widely dilated. She was at once placed in bed. She frequently put her hands to her head, but did not moan.

January 20.—Remains unconscious. Pupils dilated; conjunctivæ sensible to touch. Frequent twitchings of the muscles of the legs and arms. Pulse 120; temperature 100·2°; respirations 48.

21st.—Remains in an unconscious state with the eyelids half open. Takes a little brandy-and-water. Pulse 144; temperature 101·1°.

22nd.—Still unconscious. The eyes move about, but the pupils are insensible to light. Jaws firmly fixed. Breathing irregular; at times laboured and hurried; at others perfectly tranquil. Temperature 102·6°; pulse 138. She remained in this state until five p.m. on the 23rd, when she died.

Autopsy.—On exposing the brain it was found that the right hemisphere was generally atrophied, and that there were tracts of softening on the upper aspect of the anterior and middle lobes. The convolutions were here much excavated and reduced to a yellowish pulp, the pia mater being slightly bulged with serous fluid. The softening did not extend through the hemisphere to the lateral ventricle, but, on comparison with the opposite side, the corpus striatum and optic thalamus were sensibly atrophied. The right lateral ventricle contained a considerable excess of fluid. No hæmorrhage was found. The right middle cerebral artery contained a thrombus of old standing, adherent and partly decolorised. The anterior cerebral artery on the same side contained a recent thrombus. The vessels in general were not atheromatous. Heart, healthy; the right ventricle contained a long pale clot. Lungs slightly congested. Liver healthy but small, weighing only twenty-nine ounces. Both kidneys contained numerous small, yellow, gritty deposits, and in the pelvis of the left was some purulent urine.

REPORT OF

FIVE CASES OF STRANGULATED HERNIA,

OPERATED ON BY DR. MEASE AND MR. LESLIE MEASE, FROM OCTOBER, 1874, TO OCTOBER, 1875.

Case 1.—Miss A. C., aged twenty-eight. Right femoral hernia of twelve years' standing. Had been in the habit of wearing a truss. On September 29 she felt the hernia slip past the truss, and at once very severe abdominal pain set in, with vomiting. Half a grain of opium each second hour, with liquid nourishment, was ordered, and checked the vomiting. On October 1, as enemata had failed to produce a motion from the bowels, the tongue was becoming loaded, hiccough threatening, and long-continued gentle taxis had been tried in vain, an immediate operation was proposed to the patient's family, but rejected. On October 3, however, they consented, and the operation was at once performed by Dr. Mease. The pulse at this time had risen to 100 beats in the minute. The abdomen was tense and full, and the hernia formed a hard, irregularly shaped tumour, extending up over Poupart's ligament, and in towards the right labium. Scarcely any blood was lost during the operation, but a good many old adhesions had to be broken through. The after-treatment consisted of opium, claret, beef-tea, brandy, etc., and the bowels acted four times during the night after the operation; but the patient died next day, apparently of simple exhaustion.

Case 2.—B. R., a farmer, aged sixty-five years, admitted into the Cavan County Infirmary, March 14, 1875, with an old scrotal hernia, strangulated for two days. He had never worn a truss. The taxis and other means of reduction having failed, Dr. Mease operated at once. The patient's condition at this time was as follows:—Pulse weak, 90 in the minute. Constantly vomiting, and the scrotal tumour very tense and tender. The sac was opened; scarcely any blood lost. After-treatment: Pulv. opii gr.j. tertiis horis. 15th: No vomiting; no motion from bowels; pulse as before. ℞. Enema ol. ricini c. spt. terebinth. stat. injiciendum. 16th: Has had two small motions. Repeat enema. 17th: Four motions followed enema. 22nd: Suppuration has occurred in the sac, and the testicle on the same side is swollen and tender. Pulse very weak, 76 in the minute. 24th: Copious discharge of pus through cut made in operation. Diarrhœa; pulse very weak, 74 in minute. Poultice to cut; port wine and astringents internally; and firm strapping with adhesive plaster to scrotum. April 10: Went out perfectly well, and able to wear a truss.

Case 3.—Cath. C., a cook, aged thirty-five years. Admitted into the Cavan County Infirmary, March 31, with a right femoral hernia of two years' standing, and strangulated for four days before admission. A private practitioner having already tried the whole farrago of purgatives by the mouth and in the form of enemata, opium, hot baths, taxis (the latter violent, I fear, as well as long continued), and the tumour being tense and very tender, an immediate operation was resolved upon. Patient's state at this time: Pulse moderately full and soft, 110 in the minute; abdomen tense and tympanitic, and mouthfuls of dark brown fluid constantly coming up the throat without vomiting, but as if pumped up by sudden, painless contractions of the stomach. Dr. Mease operated at 4 p.m. The number of adhesions was very great, and occasioned much difficulty in returning the bowel. After-treatment: Pulv. opii gr. j. tertiis horis, and an enema of oil and turpentine at 8.30 p.m. April 1: Had no sleep. No motion from bowels. Brown fluid still coming up throat; pulse weak, 125 in the minute. Abdomen tense and tympanitic. Stop

opium; calomel gr. ss. each half-hour. 2nd: No sleep; has had one scybalous motion; vomiting checked. 5 p.m.: Vomiting returned; no motion. Repeat enema. 8.30 p.m.: An immense motion (the nurse had never seen one so large before) followed the enema. No sleep. The welling up of fluid into mouth has recommenced. Pulse 130, and of a miserably thready character; very great tympanites; urine very heavy (urates). Repeat the opium gr. j. tertiis horis, haust. hyd. chloral gr. xx. at bedtime. 3rd: Cath. C. died at 6.30 a.m. No sleep during night. Three motions from bowels; great diminution of tympanites. Mind clear to the last. Terrible overaction of heart set in shortly before death. In this case, as in the two previous, beef-tea, milk, brandy, claret, etc., were freely administered.

Case 4.—Thos. C., aged sixty-six years, a tailor, admitted into the Infirmary, July 27, with a large scrotal hernia of eight years' standing, and strangulated for twenty-four hours. He had never worn a truss. Taxis, etc., having failed, he consented to an immediate operation. Condition at this time: Pulse soft, 80 in the minute; severe pain in the hernia; constant vomiting. Mr. Leslie Mease operated. The sac was opened, and a very large quantity of serous fluid which poured from it was soaked up with sponges. Not many adhesions; bowel rather dark-coloured. External and internal abdominal rings could not be distinguished, but originally the hernia had probably been oblique. After-treatment: Opium gr. j. tertiis horis, and enema of oil and turpentine twenty-four hours after operation. Patient had a severe bronchitis, for which an ordinary cough-mixture was ordered. 29th: A slight motion. Cough very troublesome; heavy deposit in urine (urates). Chloral hydrate gr. xxx. in draught at night. 30th: A large motion after saline purgative draught. Cough very bad. Scrotum greatly swollen with sanious discharge from wound. Carb. ammon., linct. scillæ, and spt. chloroformi in mistura ammoniaci for cough. 31st: Scrotum greatly swollen and discoloured, with copious thin sanious discharge; no motion. ℞. Haust. ol. ricini stat. sumend. This was followed by a copious motion. From this time improvement began: the discharge became purulent, and finally dried; the scrotum, carefully strapped, regained its natural size; and, in spite of the very troublesome cough, Thos. C. was discharged well, and able to wear a truss, August 19.

Case 5.—C. M'B., married, aged fifty-five years, admitted October 28 with a femoral hernia of left side, strangulated for two full days. Patient is a delicate woman, and has been under medical treatment for dyspepsia and debility for three months. Efforts at reduction had been made before she came into hospital, and she described the surgeon who had been called in to see her as having endeavoured to force back the tumour with his knuckles, until her screams from the pain induced her family to interfere and prevent his touching her any more. The tumour at the time of admission was very tense and tender, extending two inches and a half in the line of Poupart's ligament, and without any impulse on coughing. Pulse 76 in the minute, and weak. Constant vomiting. I ordered two grains of opium every three hours, and a poultice to the tumour, with an enema of turpentine and oil. Under this treatment a small quantity of fæcal matter came away, and the vomiting ceased; and at 8 p.m. six grains of calomel were given by the mouth as a purgative. 29th: No motion; vomiting returned; a good deal of pain in tumour. Operation decided on. Pulse 76. Mr. Leslie Mease operated at 11.20 a.m. The sac was opened. Gimbernât's ligament required to be cut, and many old adhesions to be broken through. The bowel was very dark-coloured, and had a heavy smell. The constriction at Gimbernât's ligament was extremely tight. After operation the usual opiate treatment, and an enema of oil and turpentine at 8.30 p.m. 30th: Had a good night; two motions from bowels. Pulse 80, and of good quality. 31st: Suppression of urine for eighteen hours. November 4: After much pain and hard induration about the cut, which had almost healed, fæces began to come from it mixed with pus. This caused great misery to the patient, owing to the scalding it gave rise to. However, by painting round the opening frequently with collodion flexile, the daily application of argent. nitrat. to the opening itself, and constant enemata to keep the lower bowel free, the artificial anus closed, and the woman went home perfectly recovered on December 24.

I would offer a very few remarks on these cases. First, they seem to point strongly to the advisability of early operation. Of the five cases, two were operated on after four days' strangulation: these patients both died, though both were under thirty-six years of age. In the other three cases, one was operated on after three, the others after two days' strangulation: all these recovered, though their ages averaged from fifty-five to sixty-five years. The operation, *per se*, was as successful in the fatal cases as in the others, for the bowels acted well in both, but they died of exhaustion; and in both cases great tympanites and total want of sleep were prominent symptoms—both probably due to derangement or loss of nervous power. The one other remark I wish to make is to enter a protest against violent efforts at reduction, and the strong application of force in the taxis. In one of the cases just quoted, the sloughing of the bowel and the formation of an artificial anus, with all the misery caused thereby to the patient, may be fairly laid to the charge of the barbarous usage she had received before coming into hospital. I know of even a worse case than this, however. A woman came into the Cavan Infirmary, some years ago, whose attending surgeon was said to have attempted to reduce the hernia from which she suffered by kneeling on it. She was operated on and recovered, but an artificial anus formed in her case also, and greatly retarded her convalescence. The taxis judiciously applied is, no doubt, a very valuable remedial agent in very many cases, but the first essentials to its useful application are gentleness and patience, and it would be better far to have no attempt at its application by those who understand the term to include kneeling on a hernia, or trying to gouge it back into the abdomen with their knuckles. It is strange enough that both these cases recovered, but they were the only cases of a portion of the bowel sloughing out after the operation that have occurred in the Infirmary since Dr. Mease's connexion with it, which has lasted for over seventeen years, and the sloughing may fairly be set down to the violent efforts at reduction made previous to admission. If the perusal of this should induce any gentlemen who are in the habit of using what I call "strong taxis" to modify the strength of their efforts, the trouble of writing it at intervals snatched from professional engagements will have been well repaid.

Vinous Enemata.—M. Baraillier calls attention to the great utility of vinous enemata in all slow and difficult convalescences, colliquative diarrhœa, obstinate leucorrhœa, chlorosis, and dyspepsia with vomiting. One or two enemata of from 150 to 200 grammes of the red wine of Provence are given once or twice a day, at a tepid temperature; and, the intestine being first emptied by a tepid enema, the action of the wine is speedily manifested, especially in persons not given to alcoholic drinks, and therefore in women and children. If, as it does sometimes, it prove too irritating, a third or half of water or syrup should be added.—*Révue Méd.*, January 3.

Unusual Rupture of the Tendo Achillis.—In M. Richet's service at the Hôtel-Dieu is a case of rupture of this tendon under conditions and at a point unusual for it to be observed—that is, two or three inches above the point where rupture usually takes place, and close to the fleshy part of the muscles. The case occurred in the person of a discharged soldier of tolerably robust frame who had already met with several accidents in the same limb, and especially a coxo-femoral luxation. This last accident occurred about a week ago, while he was endeavouring to escape from a carriage that was driven rapidly towards him, when he felt a sharp pain in the limb, which he thought at the time was produced by a blow with a stick. On examining his limb, he found no external appearance of injury, but immediately felt a difficulty in walking, which increased to an impossibility. Almost immediately below the projection of the calf there was observed on examination a considerable transverse ridge projecting to a full centimetre; and at about a finger's breadth below this was a second projection, less visible, but quite appreciable to the touch. These two projections, having a deep depression between them, were obviously due to the separation of the edges of the ruptured tendon. Since the accident, plastic substance had been effused, and was already partially solidified. The division was not, however, quite complete, for on taking the patient's leg in the hands, and causing him to try to raise the heel, not only were the muscles found contracting, but the two projecting borders of the segments were observed to approach each other—showing that some muscular and tendinous fibres must have been left intact, and explaining how the patient was able to walk for a little distance after the accident.—*Gaz. des Hôp.*, January 22.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 19, 1876.

THE ARMY MEDICAL DEPARTMENT.

It was last week announced, with a small flourish of trumpets, that certain questions were to be put to the Secretary of State for War regarding the condition of the Army Medical Department, and more especially as regarded the postponement of the examination which had been advertised. The result was hardly satisfactory, inasmuch as the question failed to olicit any information beyond what was already known, except as respects the exact number of candidates who had come forward for the forty vacancies. These we now know, on official authority, were twelve in number, though previously it had been reported that as many as thirteen had put in their names. What was not so generally known is that this chosen band consisted mainly of what is, in polite language, termed the "sweepings of the schools."

Mr. Gathorne Hardy professed himself ready to bring a new Warrant before the Treasury to remedy some or all of the grievances under which Army Medical Officers are now suffering. It has, however, been for some time known from indirect sources that the proposed Warrant is likely to take a direction hitherto unknown in the service. It is understood that in the meantime this proposed Warrant will be founded on the principle of short service: that young medical men are to be encouraged to come forward for service with the Army for say ten years, and at the end of that time to retire with a bonus, which is commonly reported to be fixed at £500.

Into the minuter details of the proposed Warrant we are not now in a position to enter; but, assuming the above to be its main principles, it is easy to see that it does not in the slightest degree remove the standing objections to the present system of Army Medical government, but only introduces fresh difficulties. It would be far preferable to offer the care of a given regiment to the lowest bidder, and do as is done in other matters—refer the whole to contract.

There is, we believe, nothing more regretted by the Army Medical Officers as a body than the abolition of the regimental system. When that prevailed, the doctor, if he was a wise man, came to be quite as much as the colonel the "father" of the regiment: wherever he went, he, in this sense, carried his household gods with him; but since that system was abolished there has been little rest for the sole of his foot.

Putting that, however, altogether on one side, it is quite plain that if this short-time system is introduced it will so completely alter military service as to revolutionise the whole thing. It is quite clear that except some novel arrangements are made, the higher ranks of the Medical Department must speedily cease to exist, and that everyone may do that which is good in his own eyes. Is the British soldier, inefficient as he is in many respects, such a costless object that it would pay to have him "doctored" at the cheapest rate, or even by a young man fresh from the schools, without proper superintendence? We all know with what ideas we left our hospital or school—how we supposed we knew everything, and knew nothing;—but it is hardly advisable that youths with such ideas should be straightway transplanted to the care of a British regiment.

Nay, more, we should conceive such a thing to be of the very worst omen for the young men themselves. Say a man under this system enters the Army at twenty-three, then he serves ten years, and retires at thirty-three with £500 in his pocket—supposing that in the meantime there has been no lien upon it. Such a man has no experience as regards private practice. The ways of Army and Civil surgeons are altogether different. He is really, as regards age, in no better position than if he had begun ten years before, and he has acquired habits which are hardly compatible with the exigencies of early civil practice. Five hundred pounds, though a comfortable sum, is nothing to begin practice upon by a man whose habits are already more or less formed, and who has been accustomed to even the simplest regimental mess. Many other things we could urge; meantime let these suffice. This short-time system could be good neither for the Army nor for our profession.

True, we have advocated a short-time system, but in a very different sense. Men ought to retire at sixty with a comfortable allowance. If they have married, and found the cares of life strong upon them, when a good deal younger—say forty or forty-five—let this allowance be capitalised, and let them leave the service with a good sum in their pocket (£1500 or so, with which a man can do something); but the ten years and £500 will not work.

THE EAGLEY EPIDEMIC.

We stated, very briefly, last week that an alarming epidemic of fever had broken out in the village of Eagley, about three miles from Bolton; that it had spread with great rapidity, though it had been confined within a certain well-marked area; and that investigation up to that time appeared to show that all the families attacked by the malady had been supplied with milk from one and the same farm. It was rumoured at one time that the affection was foot-and-mouth disease; then that it was in reality lead-poisoning—a very acid milk, from a cow under treatment, having dissolved lead out of the solder of the milk-cans. These were, we need hardly say, mere popular rumours. The suddenness, rapid spread, and severity of the outbreak all pointed to some form of blood disease produced by contaminated food or drink, and it seemed more than probable that the early expressed opinion of the Messrs. Robinson, of Egerton, who attended the cases—that the disease was some, not virulent, form of typhoid fever, and that the milk was the vehicle of the poison—would prove to be correct.

The disease first appeared, we believe, on Monday, January 31, several of the inhabitants of School-street, Eagley, having

been taken ill on that day. On Tuesday, February 1, and each day following, fresh cases occurred; and so rapid was the spread of the disease, that on Wednesday, February 7, the number attacked had risen to 120. Mr. Robinson, the medical officer of the district, and Mr. James Robinson, both of Egerton, who attended the sufferers, found that all the houses in which cases occurred were supplied with milk from one source—viz., "Hardman's Farm,"—and that no cases occurred in houses in the same street not supplied with milk from that farm. The epidemic spread also, in a few days, to Bolton, attacking inmates of about twenty houses, situated chiefly in two streets—Turton-street and Waterloo-street,—and it was found that these houses also were supplied with milk from "Hardman's Farm." Some of this suspected milk was sent for analysis to Mr. Sergeant, the Medical Officer of Health and Public Analyst of Bolton, and he reported that though the milk was "excessively poor and impoverished," and in his opinion unwholesome, it was not so bad as to lead him to expect serious results from the use of it. But when he came to examine the water supplied to him from the suspected farm, he found it "very impure, contaminated, and totally unfitted for drinking purposes; in fact, to be little better than average sewage." He pointed out in his report that while "a water for drinking purposes ought not to exceed ·07 of albuminoid ammonia, and ·02 of free ammonia per million parts," the sample examined by him contained five times that quantity; and that the large amounts of organic matter, ammonia, and chlorine contained in the water pointed to contamination by "animal organic matter, probably fæcal." We may further add that samples of milk from the farm were analysed also by Mr. Pattison Muir, Assistant Lecturer on Chemistry in Owens College, Manchester, and by Dr. A. H. Smee, and that their reports on it agreed with that of Mr. Sergeant; while one of the cows, which was suspected of being diseased and producing poisonous milk, was examined by four eminent veterinary surgeons of Bolton and Manchester, and pronounced to be in perfect health.

We have not heard of the existence of any immediately antecedent case of typhoid fever in or near Eagley, or Hardman's Farm, but the prevailing system—if it may be called a system—of water-supply from surface-drainage, shallow wells, and polluted streams, affords every facility for the spread of enteric fever. For full and precise information on all these points we are content to wait for Mr. Robinson's report to the Local Board of Turton. Meanwhile, though the milk-supply from the accused farm has been stopped, disinfectants have been freely and extensively used, the effectual cleansing of ash-pits seen to, and other steps actively taken to prevent the spread of the epidemic, the latest report gave the cases in Eagley and Bolton as nearly 200; with, so far as we learn at present, four deaths.

It would appear, then, so far as the investigation has as yet gone, that the Eagley epidemic is a fresh instance of milk-typhoid; and though it has not yet been discovered in what way and from what source the milk became contaminated, we have no doubt, looking at the admirable intelligence and energy displayed by the Messrs. Robinson in tracing the origin of the epidemic to the milk-supply, that the source of the infection of the latter will be discovered, even should the Local Government Board not think it necessary to send down a Government Inspector. We need not remind our readers of the instances in which outbreaks of typhoid fever have been traced without any shadow of doubt to milk as the vehicle of infection; nor need we dwell on the immense danger attendant on the possible poisoning of so universal and essential an article of diet as milk. Should it be clearly proved that milk was the vehicle of infection in the Eagley and Bolton epidemic, it will surely supply an additional proof of the urgent necessity for some measure that will require periodical scientific inspection of all milk-farms, and insure that all shall be supplied with pure, uncontaminated water; so that whether this be used to cleanse the cans or to lower the milk, its use shall not be dangerous.

THE DISCUSSION ON SYPHILIS.

The discussion on Syphilis, begun at the previous meeting of the Pathological Society by Mr. Hutchinson's admirable paper, already before our readers, was continued on Tuesday evening last, with decidedly more ability than on the former occasion. The discussion commenced with a speech from Sir James Paget—classical, as are all his speeches, and equally suggestive with the best. In the main he agreed with Mr. Hutchinson, that as there was one malady called syphilis, so there was one virus; that in its nature syphilis corresponded to a slow specific fever; and that the so-called tertiary symptoms were rather sequelæ than part and parcel of the disease. These last were not symmetrical, not contagious, and seldom transmitted from parent to child.

Sir James considered symmetry as of the greatest importance in determining the nature of a disease, and referred to a paper by Dr. Budd and himself in further elucidation of this. No doubt nervous lesions had something to do with this, but still he believed the distinction to be a true one.

As to the sequelæ of syphilis: they were, like those of other fevers, seldom symmetrical. Those of pyogenic fever never were so; though in different cases they tended to affect the same tissues, as the connective tissue, the bones, etc. Intermittent fever, between which and syphilis there were many analogies, would last longer even than syphilis—yea, even over thirty years; its later symptoms were never symmetrical. Typhoid presented a great variety of sequelæ, and these were rarely symmetrical. He had only once seen necrosis, so often a sequel of typhoid fever, symmetrical—when it affected the lower ends of the tibiæ. So, too, as regards phlebitis of the femoral vein, periostitis of the ribs, etc.

All blood diseases ultimately lose their *regular* characters. This was even the case with lepra, psoriasis, rheumatic gout, and cancer. In this respect syphilis only corresponded to other maladies. In all of them the nutritive forces ultimately, by gradual increase, prevailed over the malady.

As to the theory of residues: as these must be secondary, it might be said that the tertiaries which followed them should also be symmetrical; but in reality they made their appearance when the morbid forces were passing away. Local diseases, it might be said, were rarely spontaneous; but this appeared to be the case in syphilis: neither were they proportionate in syphilis to the forces employed in generating them. Yet tertiaries had specific forms, and required specific treatment—yea, some, to which remedies might be directly applied, would not heal without constitutional treatment. This was the case with annular and crescentic sores. To the last, therefore, syphilis was a blood disease, but gradually became less and less so. In corroboration of the fact that exanthemata leave behind them certain residues, he cited certain facts, illustrative of this, which had occurred in his own person. Syphilis did not predispose more to scrofula and tuberculosis than any other malady which reduced the general health. Lupus, too, the speaker held to be entirely distinct from syphilis; it was a tubercular malady, and in every instance a tubercular history was to be made out.

Sir James would, however, differ from Mr. Hutchinson as to the influence of constitution on syphilis, even as regarded primary manifestations. Vaccination itself was so modified; and if this was true of secondaries, it was still more true of tertiaries. It was quite possible to have mixed scrofula and syphilis, when the treatment for the latter would be required to cure the disease. The same was true of other diatheses—

the gouty, rheumatic, and neurotic. Finally, he put it—How could the same poison produce such different effects in different individuals save by the influence of constitution?

Dr. Wilks began an able speech by giving a general assent to Mr. Hutchinson's statements, and, in a humorous protest against the ignorance with which he and others had been opposed when advancing the doctrine of internal tertiary syphilitic deposits, read a somewhat amusing extract from a review of the first edition of his book on Pathological Anatomy. No disease, he thought, was like syphilis: a small quantity of its virus was introduced into a man, and forthwith his whole nature was changed. He quite agreed as to the likeness of syphilis to an exanthem. To him, as a physician, the terms primary, secondary, and tertiary were meaningless; the man if he had syphilis had syphilis. If he had fibroid deposits they must have been preceded by something more definite, though a knowledge of this was often hard to come at. Certain cases he cited in support of his belief.

As regarded the relations of syphilis to other diseases, he thought he had seen it in some—as, for instance, where jaundice and acute atrophy of the liver had occurred in its secondary stage. Syphilitic deposits, he believed, were contemporaneous with secondary symptoms, yet seldom seen; perhaps they bore an inverse ratio to the external indications of the malady. He believed that in many cases of tertiary deposit the secondaries were either absent or had been mild in their character. He was inclined to take swelling of the testicle as an indication of the progress or retrogression of more internal deposits. It was a question how far rashes could be taken as a test of the stage of the malady. Again: another point was this—Can an adult acquire secondaries without primaries? During the incubation stage a man had not syphilis, any more than he had small-pox immediately after being inoculated.

In a short but pointed speech Dr. Hilton Fagge referred to the influence of syphilis in producing lardaceous disease. This, he thought, was invariably due either to chronic suppuration or to syphilis, and might, he thought, the former being absent, give a clue to the existence of the latter. In syphilitic disease, the lardaceous change, which was chemical in its kind, was not due to suppuration; but if the two processes could give rise to the same phenomena, he thought they must be related. He hardly believed in phthisis arising from syphilitic deposit; the local change was, he thought, pneumonic. Syphilis might conduce to phthisis by its general influence on health, but not otherwise. Finally, it was important to bear in mind that skin disease, as psoriasis, might exist before and last after syphilis.

Mr. B. Hill considered syphilis to be from first to last a blood disease, but that its contagious power ceased at a certain period, though there might be repeated outbreaks subsequently, when the disease might again become contagious, and it would remain even longer in a condition to be propagated by offspring. Even here, however, the disease tended to wear out, the earlier children being more violently attacked than those born subsequently. It was, moreover, important to bear in mind that the same remedies were effective at all stages. He was quite sure syphilis could not be cured by local applications only. Symmetry was never very marked in syphilis, especially in its advanced stages. He also held a kind of belief that when secondary eruptions lasted a long time, and were severe in character, there was less chance of visceral lesions following. Lymphatic temperaments he thought were prone to suffer.

Mr. De Méric, in a wordy speech begun at too late a period of the evening, made some observations on Mr. Hutchinson's paper. He considered that the idea of there being but one virus was retrograde. The soft sore had occurred from all time, but the period of the appearance of the hard chancre was perfectly definite. One good point he made was that the exanthematic theory broke down before the fact of the heredity of syphilis. He believed in the different stages of syphilis, not in any analogies between the second and third stages. There was no real symmetry in secondary eruptions. In the tertiary stage the disease was on its decline, and only certain special spots were liable to attack.

THE WEEK.

TOPICS OF THE DAY.

The recklessness with which narcotic poisons are introduced into quack remedies must, sooner or later, become the subject of legislative discussion, and how urgent is the need of some law on the subject the following case amply testifies. Last week, Dr. Hardwicke held an inquest on the body of a child aged six months. The mother, in her evidence, deposed that up to within the last three weeks the deceased was a fine, healthy child; it then became ill, and she (the mother) was induced by a handbill which had been given to her to apply to a chemist for a bottle of "Infant Preservative," a patent medicine manufactured by Atkinson and Barker, of Stockport, near Manchester. This medicine was administered to the child five times in all, and on the 3rd inst. it died. Mr. D. Thomas, the Deputy Coroner, stated that on the morning of the 3rd the mother brought the child to his surgery. It was suffering from congestion of the lungs, and it was evidently under the influence of some narcotic. Its eyes were fixed, and the pupils strongly contracted to a point, and he was unable to arouse it. The mother gave him a bottle labelled "Atkinson and Barker's Infant Preservative." He handed the bottle with its contents to Professor Anderson, Medical Officer of Health and Analyst for Paddington, to analyse. He considered that death had resulted from congestion of the lungs, accelerated by the narcotic detected in this patent medicine. Dr. Thomas observed that if he or any other practitioner administered such medicine he would be held responsible, but under a patent and a Government stamp others escaped. Another evil was that in most cases these quack medicine vendors left it to the parents to determine the quantity to be given. Professor Anderson, who had analysed the "remedy," said there was about one fluid ounce of liquid in the bottle. It contained opium, but he was unable to weigh it. The Coroner remarked that here was a death no doubt accelerated by this nostrum. It was to be hoped that the public press would notice these cases as a caution to parents and for the public benefit. The jury concurred, and returned a verdict that "deceased died from congestion of the lungs, accelerated by narcotic poisoning; the said narcotic being contained in a bottle of 'Atkinson and Barker's Infant Preservative' administered to it." A gentleman present at the inquest stated that these very people, Atkinson and Barker, of Stockport, had been sending letters to the registrars all over the kingdom, offering them a commission to place bills recommending the "Infant Preservative" in the hands of all informants on occasion of birth registration.

A gentleman has written to a contemporary to complain that a few days ago two pamphlets issued by the Anti-Contagious Diseases Acts Association were put into the hands of his sister, a girl of nineteen years of age, when she was shopping; and as the man who gave them to her handed others to boys standing by, she thought they were tradesman's advertisements, and put them into her bag. The gentlemen expresses his astonishment that the law preventing the circulation of bad and obscene books cannot be applied in such a case; and our contemporary, to whom the pamphlets were forwarded with the letter, bears testimony to the very objectionable nature of their contents. We think that every impartial observer will allow that the opponents of these Acts are

outstepping the bounds of legitimate opposition. We have before alluded to the bad taste and utter uselessness of holding public meetings on this subject, attended by numbers of young females. The topics of this discussion are not calculated to improve the minds of youthful members of the other sex; and the agitators should remember that the great majority of parents would infinitely prefer that their daughters might remain in happy ignorance of a disagreeable though undoubtedly necessary piece of legislation, their knowledge of which could by no means be expected to affect the issue.

The Keighley Guardians would appear to have submitted with very bad grace to the peremptory *mandamus* of the Queen's Bench, requiring the Board to carry out the vaccination laws. At a meeting held last week, the chairman, Mr. R. Milner, moved a resolution pledging the Guardians not to submit to be the tools of the Local Government Board; and Mr. Jeffery said he would sooner swing on the gallows than have his children vaccinated. An amendment, instructing the Clerk to make a reply to the *mandamus*, that it would be obeyed, was, however, carried by eight votes to three. It was also resolved to direct the proper officers to prosecute defaulters; and, at the Chairman's own suggestion, it was decided that he should be one of the first parties proceeded against.

At the last weekly sitting of the Marylebone Vestry, a letter was read from Miss A. H. Cavendish-Bentinck, of Norfolk-street, Park-lane, expressing her deep sympathy with the patients of Middlesex Hospital, who are much disturbed and annoyed by the noise occasioned by the traffic over the granite cubes laid down in the street opposite that building, and, with a view to obviate this, she offers the Marylebone Vestry the sum of £1000 in part payment of the cost for laying down a wood paving in lieu of the present stone one, the only stipulation being that the work shall be commenced before the middle of March next. The recommendation of the Committee that the offer of Miss Bentinck be accepted, and the work carried out forthwith, was carried unanimously, with thanks to the benevolent donor.

Dr. Halford's remedy for the treatment of snake-bites by the intravenous injection of ammonia has been frequently tried during the past year in Australia, and is reported to have been most successful. The reports from that colony state that, whatever may have been the experience of India, Australian snakes certainly do not inject enough poison to prove fatal if the ammonia treatment be resorted to in time; and it is suggested that the verdict of the Indian Commission appointed to examine and report upon Dr. Halford's method proved nothing as regards its value in dealing with the bites of Australian snakes.

On Saturday last the Royal Infirmary for Children and Women in the Waterloo-bridge-road was formally reopened by the Lord Mayor, having been closed for some months for the purpose of enlargement. Six well-planned wards, one of them named after the Lord Mayor, were inspected by the company present. The architect, Mr. Edward Barry, has carried out the work in a practical and satisfactory manner, at an expense of about £3700. Of this sum £1000 remained as a debt to be liquidated by public subscription, and it is very satisfactory to be able to record that at the *déjeûner* which followed the opening proceedings no less a sum than £800 was collected for this purpose. The services of the staff, which includes Dr. Samuel Wilks, Dr. Williams, Mr. Cooper Forster, Dr. Vivian Poore, Dr. Park, Dr. Roper, Dr. Greenfield, Mr. Canton, Mr. T. Roberts, Mr. E. Day (the resident medical officer), and Mr. W. Champion (the secretary), were warmly recognised, and the institution was opened to the public under the most cheering auspices.

The Secretary of State for War has addressed a communication to the Metropolitan Board of Works, informing them that it is contemplated to reconstruct the barracks at Knightsbridge upon the present site, and suggesting that the Board might probably desire to exercise their powers of purchasing a portion of the site for the improvement of the roads leading from Kensington to Hyde-park-corner. Immediate consideration of this offer is requested, as Mr. Hardy desires to proceed with the plan for reconstruction at once, in order to submit the same for the approval of Parliament early in the present session. It would therefore appear that the vexed question of the removal of these barracks to some other site has now been definitely settled. We are glad to find that the authorities have determined at last to thoroughly reconstruct the buildings. This was an absolute necessity from a sanitary point of view. Whether or not the barracks are needed on this exact site is purely a question for the military authorities.

The report of Dr. Whitmore, Medical Officer of Health for the Parish of St. Marylebone, for the month of January last, shows a high death-rate, equivalent to an annual death-rate of 28·65 per 1000 of the living population of St. Marylebone, being about 4·5 per 1000 in excess of the average. This increase in mortality was entirely owing to the continued fatality of diseases of the respiratory organs, to which no less than 106 deaths were attributed. Amongst contagious epidemic diseases, measles and whooping-cough were the most prevalent and fatal, and appear to be increasing, whilst scarlet fever is gradually subsiding. Dr. Whitmore remarks that it is interesting to observe with regard to small-pox, measles, and scarlet fever, that their epidemic visitations have hitherto been characterised by great periodicity. They generally return to us at intervals of about four years, and remain from eighteen months to two years; and that in proportion, also, to the zymotic activity of any one of them, so is the quiescence of the other two.

It is satisfactory to find, from the weekly report of the Sanitary Commissioners of the Punjaub to December 4 last, that cholera has entirely ceased in the Province, no deaths from the disease having been registered during the week under review. Ninety-seven deaths, however, were registered under the head of small-pox, the number in the previous week having been 103. Though great mortality continues to prevail in the districts of Gurdaspur, Hoshiapur, Jullundur, Mooltan, and Montgomery, the death-rate has decreased considerably since the last week reported. There continues to be a marked improvement in the health of the Sialkot district; that of Amritsar is also improving. The rest of the districts continue healthy.

It is announced that, in reply to the application of the House Committee of the London Hospital, conveyed through the Rev. T. J. Rowsell, deputy chairman, and one of her Majesty's Chaplains-in-ordinary, the Queen has signified to the Duke of Cambridge, the President, her intention to visit the Hospital on Tuesday, March 7 next, for the purpose of opening the "Grocers' Company's Wing," now nearly ready for occupation. His Royal Highness the Duke of Edinburgh has also kindly consented to devote the proceeds of the Royal Albert Hall Orchestral Society's next concert to the benefit of the London Hospital. The concert is fixed to take place on March 4 next.

In answer to a question put to him in the House of Commons, on Tuesday evening, the President of the Board of Trade stated that the *Royal Sovereign* had arrived in the port of London, and that the inquiry, which had been ordered, and commenced at Falmouth as soon as the ship had been obliged to put in there from the prevalence of scurvy on board, would be continued in London on Wednesday. He regretted being obliged to acknowledge that scurvy had increased of

late in the mercantile marine; and stated that the owners of the *Royal Sovereign* had freely placed at the disposal of the Board of Trade all documents and invoices showing from whom their stores had been obtained.

We are glad to be able to congratulate Professor Huxley on having been awarded the Wollaston Medal of the Geological Society. The medal will, we understand, be presented at the anniversary meeting of the Society, on the 19th inst. Professor Huxley has also been elected a Corresponding Member of the Danish Academy of Sciences.

TESTIMONIAL TO STROMEYER, OF HANOVER.

A PRIVATE meeting of distinguished hospital surgeons was held on Monday last, at 18, Park-street, Grosvenor-square, W., to consider the propriety of joining in the movement now going on in Germany to celebrate on April 6 next the fiftieth anniversary of Dr. Stromeyer taking his degree in Göttingen. The following gentlemen were present:—Sir James Paget, Messrs. Prescott Hewett, Hilton, Curling, White Cooper, Spencer Wells, J. Hulke, J. E. Erichsen, F. Liebreich, John Gay, T. Holmes, W. Adams, and W. Mac Cormac; Dr. Little in the chair. An explanation of the preliminary steps taken having been made by Mr. Mac Cormac, and letters from several gentlemen very cordially supporting the movement having been read, it was moved by Sir James Paget, and seconded by Mr. Erichsen, and unanimously resolved—"1. That an address be presented to Dr. Stromeyer, expressing the congratulations of the signataries to it on his long, active, useful, and honourable professional career, as shown by the results of his discovery of the value and safety of subcutaneous surgery, by the high tone of his surgical writings, and by his persistent efforts to improve the principles and details of surgery, especially as applied to gunshot and other wounds received in war, as well as of military hygiene. 2. That Dr. Stromeyer be requested to sit for his bust, to be executed in marble by the most able German sculptor he may select. 3. That a subscription-list be opened to defray the expense of carrying out the above objects; that no single subscription shall exceed two guineas; and that subscriptions be not received from persons who are not members of the medical profession. 4. That the substance of the proceedings and of the resolutions which may be adopted on February 14 be announced to the profession at large by advertisement in the medical journals, and that the support and contributions of the profession be solicited. 5. That W. J. Little, M.D., and William Mac Cormac, F.R.C.S., be requested to act as joint treasurers and secretaries." It was further moved by Mr. Prescott Hewett, and seconded by Mr. Curling, and unanimously carried—"That the gentlemen present be requested to act as a committee, together with Sir William Fergusson, Messrs. Bowman, Erasmus Wilson, Baker (of Birmingham), and Dr. Hermann Weber, who had previously signified their desire to co-operate." Dr. Little, Mr. Spencer Wells, and Mr. Mac Cormac were requested to act as an executive committee to give effect to the resolutions agreed to, and to receive the subscriptions of those desirous of contributing.

THE ROYAL FREE HOSPITAL.

WE observe, from the proceedings in connexion with the annual meeting of the Governors of the Royal Free Hospital, that the total receipts for the past year amount to over £12,500, and the expenditure to only £8396, leaving a balance of more than £4100. In moving the adoption of the report, Mr. Gant, surgeon to the institution, gave a sketch of its history during the past twenty years, and referred to the proposed extension of the Hospital, by which the service of beds would be increased from 102 to 150. When the enlargement is completed, the hospital practice will be recognised by the College of Surgeons as qualifying for the membership, and he hoped that the Hospital would then become a valuable clinical school for students.

A NOVEL HEALTH REPORT.

THE annual report of Dr. Gregory, the Medical Officer of Health for Westhoughton, Lancashire, is a somewhat amusing document. After stating that the death-rate of Westhoughton for the year amounted to 19 per 1000 per annum, he said he was not satisfied with this rate of mortality, for, situated as it is with its "superficial parts rocked in the cradle of the western breeze or bathed in the balmy breezes of the south," Westhoughton ought to be one of the healthiest places in the kingdom. If the township did not improve in sanitary matters, the whole of his stipend for 1875 should be given to "charitable purposes—may be setting up supping-stones for steeds, sheep-dogs, spaniels, Scotch terriers, and such-like animals, which are generally considered, but seldom are, lower than ourselves." Commenting upon the fact that last year about one-ninth of the mortality was of aged people, Dr. Gregory says when a man has lived forty or fifty years in a fairly elevated house, and is then removed to a house the basement of which is on a level with the earth, no wonder that bronchitis "or some other infernal disorder deprives him of the residue of his years." He complained of the indefinite character of the certificates sent to him by sub-registrars. Some of them, he said, were not half so instructive as the concluding words of an epitaph—

> "She had two bad legs and a badder cough,
> But her legs it was as carried her off."

From this choice rhyme one suspected heart disease, perhaps to be traced to a damp house; but a certificate which certified "probably cough" or "probably vomiting" was as indefinite as "probably sneezing or snoring."

THE COUNTY INFIRMARIES, IRELAND.

ACCORDING to Act of Parliament (36 Geo. III., cap. 9, 1795), no surgeon to a county infirmary in Ireland is to be elected without "letters testimonial" from the Irish Royal College of Surgeons, whose licentiates have therefore enjoyed a monopoly of these valuable appointments for eighty years. This ordinance has been felt a hardship by gentlemen holding the *Magister in Chirurgiâ* degree of the University of Dublin; and accordingly Mr. Edward Gibson, member of Parliament for the University, has asked for leave to bring in a Bill (Medical Practitioners, Ireland) to enable legally qualified medical practitioners to hold certain public medical appointments, including the Surgeoncies to the Irish County Infirmaries. This will also draw attention to the advantages of the County Infirmaries at a time when their very existence is at stake. It is proposed to abolish them, and to constitute the various workhouse hospitals throughout the county infirmaries. A more retrograde step can scarcely be imagined. The Surgeoncies to the Infirmaries are, and have ever been, held by the first provincial men in the sister country; and the respectable farmer class, who never could be induced to enter a workhouse hospital, have always utilised the wards of the Infirmaries when prostrated by injury or surgical disease.

DEATH OF MONSIEUR ANDRAL.

THIS celebrated pathologist and physician—one of the most distinguished clinical teachers that France has produced—had for so long a period led a life of such complete retirement, that the announcement of his death, in the seventy-ninth year of his age, will have taken many by surprise who were not aware that he was so recently living. In the midst of a most brilliant career of successful practice and professorial teaching, and in the full vigour of life, he some years ago suddenly (consequent on the death of his wife, we believe) abandoned his high position in the medical body, and the chair of pathology and therapeutics that he had rendered so famous, and retired to a remote country village. On rare occasions he has appeared at the Académie des Sciences, in order to give his

vote or assist in some of the business of the Academy; but the only paper that he has contributed to that, or any other body, for very many years, is an analysis of the eighty-four cases of diabetes that had come under his notice, sent in last year, and which we transferred to our columns (April 24, page 450). We hope in our next number to be able to furnish an account of his life and scientific services.

A BOLD UNQUALIFIED PRACTITIONER.

THE Coroner for Cheshire recently held an inquest at Wallasey on the body of a servant-girl who died in childbed about two hours and a half after being delivered of a stillborn child. The deceased had been attended by an unqualified man named Miller, who, it was reported, performed an operation with instruments. The medical evidence showed that death had resulted from natural causes, and a verdict to that effect was returned. The Coroner explained to the jury that his objects in holding the inquiry were to ascertain the cause of death, and to protect her Majesty's subjects from unskilled men. Mr. Miller was said to hold some American diploma, but that did not entitle him to practise in this country. On this Mr. Miller replied that he should continue to practise as usual. We should imagine that when it becomes generally known in the neighbourhood that persons dying under Mr. Miller's hand cannot be buried without a coroner's inquiry being held, the inhabitants of Wallasey will be very careful as to how they engage his services.

INDIAN MEDICAL SERVICE.

THE following is a list of the candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley. The first-named gentleman gained the Herbert Prize :—

	Marks.		Marks.
1. Weir, P. A.	5536	6. Pedrosa, F. H.	4681
2. Freyer, P. J.	5508	7. O'Neill, J.	4675
3. Haig, P. de H.	4826	8. Clarkson, J. W.	4472
4. Lewtas, J.	4729	9. Parker, Jos.	4188
5. Ferrand, E.	4708	10. Day, C. H.	4096

THE DURHAM COUNTY HOSPITAL.

IN a letter to a local newspaper, Mr. Edward Jepson, Honorary Surgeon to the Durham County Hospital, states that, in his opinion, this institution is not fulfilling the objects of its establishment. Notwithstanding the immense increase in the population of the district of late years, fewer patients pass through the institution now than formerly. During the past year the female ward has seldom been half-filled, and the female convalescent ward has scarcely ever been entered. The nursing—never of a very high order—has, in consequence of the substitution of an untrained woman for a trained nurse, hopelessly degenerated. Often he (Mr. Jepson) has been compelled to call attention to the dirty and untidy state of the patients, their clothes and beds, and the wards generally. Mr. Jepson is anxious to introduce improved nursing arrangements, to have the wards enlarged, and to make certain alterations respecting the pay and tenure of office of the House-Surgeon.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE next meeting will be held on Saturday, February 19, at 7.30 p.m. Mr. P. W. De la Motte, Medical Officer of Health for the Urban and Rural Sanitary District of Swanage, Dorsetshire, will be balloted for as an extra-metropolitan member. Dr. George Wilson, Medical Officer of Health for the Combined Sanitary District of Mid-Warwickshire, will read a paper entitled "Sanitary Work in Rural Districts." The subjects for discussion will include House-accommodation, Water-supply, Scavenging, Closet-accommodation, and Drainage.

THE THERAPEUTIC ACTION OF ESERINE IN CHOREA.

DR. BOUCHUT, of Paris (*Bulletin de Thérapeutique*, 1875, lxxxviii.), has made a number of experiments on choreic children with eserine or physostygmatine in doses of from two to five milligrammes. It was given to the patients both in pills and by subcutaneous injection, and it was experimentally determined that only half as large a dose is required by the latter method as when the drug is given by the mouth. Its action is rapid, and shows itself in a few minutes. The whole skin becomes pale, and the pulse becomes small as well as slower. There is nausea and then pain in the gastric region and vomiting of watery fluid. Bouchut did not observe diarrhœa or contraction of the pupils in any case, but there was an increase in the amount of perspiration on the skin. A very unpleasant symptom —namely, partial paralysis of the diaphragm—was several times observed after the subcutaneous injection of five milligrammes of physostygmatine. During the time of the drug's action choreic movements were lessened, and they were also less marked in the intervals between the doses. Some children got quite well after two or three injections, while others needed from ten to twenty. The average number of injections required was seven, and the mean duration of the treatment ten days. The effect of each dose lasts from two to three hours, so that the dose can be repeated three or four times a day, and it is then best to exhibit three or four milligrammes *internally* each time. With the exception of the immediate effects of the medicine which have been noticed above, no bad consequences followed the treatment.

A HALTING CHARITY.

WHETHER in consequence of any conduct on the part of those who are responsible for the management of the National Orthopædic Hospital, or whether the claims of other institutions are placed before the public in a more urgent form, we cannot say; but it is tolerably certain that this charity is not in particularly good favour with the benevolent. At the annual meeting, a few days ago, it was reported that the receipts for the year only reached the sum of £925 8s. 1d., or about £200 less than the expenditure. In order to meet current expenses the committee have found it necessary to draw out £250 from the trust fund.

BEQUESTS TO LIVERPOOL MEDICAL CHARITIES.

THE medical charities of Liverpool are entitled to the following handsome bequests under the will of the late Miss E. A. Cort, who died at Kirkby on the 3rd ult., viz. :—The Royal Infirmary, the Northern Hospital, and the Southern Hospital, each £2000; the Lying-in Hospital, £200; the Infirmary for Children, the Eye and Ear Infirmary, and the Institute for Infectious Diseases, each £100

PARLIAMENTARY.—ARMY MEDICAL DEPARTMENT—THE PAROCHIAL SYSTEM OF THE METROPOLIS.

IN the House of Commons, on Monday, February 14,

Mr. Hardy, replying to questions put by Dr. Lush, Mr. Gibson, and Dr. Lyon Playfair, said that the examination for the Army Medical Department, which was to have been held that day, had been postponed in consequence of only twelve candidates having come forward for upwards of forty vacancies. Certain proposals were before the Treasury and the India Office for increasing the supply of candidates and improving the condition of the Department.

On Tuesday, February 15,

Sir Wm. Fraser moved a resolution condemning the parochial system of the metropolis, and urged upon the Government the desirability of legislation with a view to remove the great evils which exist under the present system of local management. He alluded to the inefficiency of the present system of water-supply and of gas; also to the defective system of drainage and the removal of house-refuse and dust. He quoted various statistics to show that in many districts of the metropolis the water-supply was most deficient, the cisterns improperly constructed; and privies without proper

arrangements existed very generally. He suggested that the parochial districts should be reduced in number, and that the central authority, *i.e.*, the Board of Works, should be elected by the general body of ratepayers. Sir James Hogg, chairman of the Board of Works, opposed the resolution, and Mr. Cross pointed out that Lord Elcho's Bill was to be re-introduced, and that certain motions would be proposed for the better regulation of the gas and water-supply, so that ample opportunity would be given during the present session for ventilating the subject of metropolitan administration. The resolution was subsequently withdrawn.

MORE NOTES ON WINE AND SPIRITS.

(*Concluded from page* 175.)

ILLOGICAL TYRANNY OF TEETOTAL ARGUMENTS—OTHER CAUSES OF DRUNKENNESS BESIDES LOVE OF BEER—THE CONVOCATION OF CANTERBURY REPORT ON BAD WINES—TEETOTAL ARGUMENTS AGAINST WINE TELL EQUALLY AGAINST BREAD, QUININE, SOAP, AND VACCINATION—A TEETOTAL ORATION IN HYDE-PARK—AFTER SIXTY MOST TEETOTALERS CEASE TO ABSTAIN.

Now for a few concluding notes on teetotalism, which, I warn my medical brethren, if once allowed to become dominant, will be a chain round their necks, and will allow them no free thought or speech on questions of diet or medicine.

That there is need enough for spreading true temperance principles is true; but this can only be done by raising the whole tone, moral and physical, and the habits of the population. Drunkenness is not simply a matter of love of beer. Look for an example at the following testimony printed by the Convocation of Canterbury in their "Report on Intemperance" (1869, pp. 159, 162) :—

One experienced witness says—"My own belief is that men go into the public-house more to get away from their wives than from any other cause. Their homes are fearfully uncomfortable, and the wives are of very inferior quality, almost worthless as managers, and continually in debt."

Another says—"As regards their management in bringing up their children, babies especially, and their filthy habits in the bedroom, no wonder at men leaving their homes and spending their time in a public-house when they can obtain a shilling to do so. Upon the whole, my opinion is, the great fault is wives, as far as concerns married men."

What is the use of abusing "drink" in the face of facts like these?

Nevertheless, the teetotalers, instead of amending the evils that lead to drunkenness, or teaching the duty of temperance —the power of enjoying or of abstaining, as reasonable men should,—set themselves to denounce all fermented liquors, say it is a crime to partake of them, and that the moderate man sets a worse example than the drunkard.

The character of the arguments used in support of these preposterous ideas is well worth noting, because if we, as medical men, tamely give in to them, we shall find that they will be applied to many other cases besides the lawfulness of drinking wine.

In the first place, there is the argument that in drinking wine we meddle with a thing that is not properly a work of the Creator; which God never made for man's use; and which, as the extreme teetotalers plainly intimate, is a work of the devil, and not of God.

This doctrine is stated temperately in a letter to the *Guardian* of December 1, 1875, by a clergyman bearing the honoured name of Wilberforce, whom one is sorry to see in such bad company.

"Drinks," he says, "were not integral parts of the original creation of God which was pronounced very good, but have since been discovered by accident, or by the ingenuity of man, and are manufactured by decomposing certain of the constituent parts of that which was originally created, and by arresting that decomposition at a certain stage."

The rev. gentleman does not seem to see that he is giving a description of the process by which bread is fermented, and tea prepared, and tobacco; the same description would apply to the making a linen shirt out of flax. And if one such process is to be condemned on such grounds, why not all?

One eminent member of our profession, whom I respect too much to name him, and who has lately become a champion of this illogical heresy, puts the argument thus—"Nature has produced water and milk for man to drink, and they are of a truth all the fluids that are essential." Beasts do a good deal of work, and only require water, therefore man does not require more!

The clergyman and the physician who propound such arguments as these, seem to do so tamely, as if they felt that there was something not quite rational in what they were saying. It is the illiterate teetotal spouter alone who can utter them quite unabashed. Such an orator I heard one Sunday in Hyde-park, and ask your permission to write as he pronounced.

Standing up, and baring his right arm, the orator said: "Luke heer, moy frenns; luke at this heer orrum o' moine. [Look here, my friends; look at this here arm o' mine.] And what is there, moy frenns, in this heer orrum o' moine? Why there's flesh, and there's sinners [sinews], and there's fat, and there's bone; but not one drop of cussed alcohol! No, moy frenns, God Almighty knowed better than to put one drop of cussed alcohol into this heer orrum of moine; and what right has we?" Here the speaker, having evidently delivered himself of what he thought a clincher, mopped his face vigorously, and I went on.

Now, it is quite clear that if this argument is good for teetotalism, it must be good in a great many other cases. God Almighty put no vaccine matter into our arms; what right "has we"? Vaccine and quinine, too, were not integral parts of the original creation, but have been discovered by accident or the ingenuity of man. Nature has provided water, but no soap. No other animals use soap; they lick themselves, or roll in the mud or dust. What is there in man to require soap, if the monkey does not?

But enough of this—at which both clergyman and physician will laugh when the tectotal fascination shall have passed away.

The next grand argument of the teetotalers is equally mischievous and misleading. It is that drunkenness is the parent of all crime. Many crimes are doubtless committed under the influence of drink; but it is not reasonable to say that because criminals drink, therefore drink is the source of crime. Love of finery; love of the excitement of gambling; illicit sexual passion—these are the sources of crime, and these would remain, if all drink were annihilated.

Teetotalers, further, steadily ignore or deny all the benefits of wine and spirits in cases of debility, and ascribe to their use nothing but harm; they admit that it only produces a kind of sottish satisfaction, and aver that people who take it must go on steadily adding to the dose.

The only reply one need make to this is to say that it has fallen to my lot to know many total abstainers, during a long series of years; and that all of them, as time went on, took to the temperate and reasonable use of wine. Further, that I have known many persons between the ages of seventy and ninety, all of whom have taken for years, and continue to take, moderate quantities of wine and spirits with infinite benefit. Lastly, if anyone denies to wine and spirits the name of a food, I will recommend him to read any medical account of the diet and general condition of the people of Paris during the late siege. The answer to such a question is to be got from the broad results of human life and work, not from experiments in a laboratory.

GOÎTRE IN SIBERIA.—Goître prevails only to a slight extent in Russia in Europe, its vast plains offering few facilities for its development. It is, however, met with in some isolated villages in some of the Governments. In Siberia, on the contrary, it prevails endemically. According to a statistical account published by Dr. Hachine, in a population of 365,810, in the Government of Irkoutsky, which is watered by the Lena and its affluents, there existed, in 1870, 3400 subjects of goître and 161 cretins. In some small villages 12 and even 25 per cent. of the inhabitants were goîtrous, and a Cossack regiment 5040 strong furnished 436 instances of goître. The affection, it is said, was not known in Siberia previous to the Russian conquest, and is chiefly due to the accumulation of filth and manure in the deep, unventilated valleys where it prevails. Its presence is much favoured by the habit of the Russian peasants of keeping their abodes perfectly closed up, and which they have carried with them to Siberia. The indigenous inhabitants, who frequently change their places of abode, which are also better ventilated, are only exceptionally goîtrous, and then only when they adopt the Russian mode of life.—*Jour. de la Société de Statistique*, January.

FROM ABROAD.

Drs. Lusk and Barker on the Genesis of Puerperal Fever.

At a meeting of the New York County Medical Society, Dr. Lusk read a paper (published in full in the *American Journal of Obstetrics* for November), in which he gave an account of the "Genesis of an Epidemic of Puerperal Fever" which occurred at the Bellevue Hospital in 1874. From a consideration of this he arrives at these two conclusions:—1. That puerperal diseases may be engendered by the atmosphere alone. This was shown by a fever which had commenced being at once arrested by the simple removal of the patients to another locality, all other circumstances remaining the same. This, indeed, has occurred over and over again in other instances, the closure of the ward for three or four weeks usually restoring it to a healthy condition. 2. There is also a form of puerperal fever possessing eminent contagious properties, not primarily derived from a miasm, but capable in time of generating a poisoned atmosphere. At a time when the general health of the ward was good, a patient was suddenly attacked by intense and fatal fever, the autopsy revealing no local lesions. From the period of her attack puerperal fever was never absent: removal of patients, changes in the medical staff, and precaution as to utensils proving of no avail, the disease being kept alive and active through the agency of the nurses. After the epidemic had prevailed for a season, it became characterised by the formation of diphtheritic membranes, usually upon the external genitals; and at first prompt cauterisation possessed a surprising influence in arresting symptoms that seemed to point to an inevitably fatal result. However, the occurrence of symptoms preceding the termination of labour shows that the poison found other channels of entry into the economy than the lesions resulting from childbirth. At first this miasmatic condition was not sufficient to produce fatal results; subsequently, however, it reached a stage of development in which it alone rapidly produced death; cauterisation of the local lesions then ceased to possess any marked efficacy. Three months later the obstetrical were used as surgical wards, and not one case of pyæmia or septicæmia followed on the numerous capital operations that have been performed therein.

In some interesting "Remarks" on this paper published by Dr. Fordyce Barker in the *New York Medical Record* for October 30, he observes that some practitioners, who have studied this disease only in hospitals, and know nothing about it as it occurs in an epidemic form in private practice, are disposed to regard its associations and complications as the very essence of the disease, and to substitute for the term puerperal fever those of puerperal pyæmia or puerperal septicæmia. The authors of many of the treatises on the disease, also, have described it only as they witnessed it in hospitals; and favourable as these may be for the completeness of the observations which they render possible, they have the effect of inducing such modifications in its characters that descriptions derived solely from this source do not tell the whole truth.

"The septic diseases seem to be divisible into two distinct classes—the one being especially hospital diseases, not contagious, and never occurring as epidemics. To this belong hospital gangrene, pyæmia, and septicæmia. The two latter are met with in puerperal woman in private practice; but no one ever heard of an epidemic of either surgical or obstetrical pyæmia, and no one claims that either of these diseases is contagious. The other class of septic diseases is relatively as frequent outside as within hospitals; they are contagious, and often occur as epidemics. In this class I would mention erysipelas, diphtheria, and puerperal fever. Between these there is a solidarity not found in the relation between pyæmia and septicæmia, or any other disease with puerperal fever. The intimate relation existing between erysipelas and puerperal fever was first pointed out more than 100 years ago, and has been so strongly confirmed by numerous observations of the highest authorities, that this fact may now be regarded as conclusively settled. They are distinct diseases as regards their morbid anatomy and their clinical phenomena, but they are interchangeable. . . . The solidarity between puerperal fever and diphtheria is so marked in some epidemics as to lead Prof. E. Martin, of Berlin, to regard the diphtheritic process in the genital organs as the only essential element of puerperal fever. Pyæmia and septicæmia bear no such relation to puerperal fever. Either of these affections may occur in puerperal women who have not puerperal fever, or either of them may be associated with or complicate puerperal fever. For these, and for many other reasons which I have urged elsewhere, I cannot resist the conviction that the study of the genesis of puerperal fever is the study of a distinct essential disease which attacks puerperal women, and puerperal women only."

The great practical object of the study of the genesis of this disease is the discovery of preventable causes.

"A very great advance has been made within a few years in our knowledge of the various agencies which contribute to septic poisoning, and still more striking has been the addition to our resources in the use of antiseptic remedies. Every intelligent obstetrician appreciates, at the present day, the great importance of averting all the predisposing causes of the disease in the patient herself by an efficient treatment of anæmia and albuminuria in the last periods of pregnancy—a condition which so tends to blood-deterioration, and which so favours the absorption of septic poison: by securing to the patient perfect ventilation and good air during labour and the puerperal period; by preventing delay in labour, in the early resort to the use of the forceps or other resources of our art, when necessary; by effecting the early removal of the placenta by compressing the uterus, securing the efficient and permanent contraction of this organ, and thus preventing the retention and decomposition of clots, and the torture and exhaustion of after-pains; by removing immediately after labour all soiled clothes and bedding, and carefully watching that none are ever after permitted to contaminate the patient; by antiseptic washes and injections to prevent autogenetic poisoning; by good nutrition; and, lastly, by guarding the patient against the dangers of infection or contagion through the medium of the nurse or the obstetrician. This is a very rapid and by no means complete exposition of the resources we have at command for averting danger from puerperal fever. . . . But there still remain, as great determining causes of this fearful disease, nosocomial malaria and epidemy. How to overcome and to exterminate nosocomial malaria is the great problem which I confidently hope will be solved by the progress of science at no remote period. The devastation which results from this cause in obstetrical and surgical hospitals has led some to the extreme folly of questioning the usefulness of hospitals, and others of urging as a radical necessity the extravagantly expensive procedure of pulling down all the old hospitals, and of reconstructing them of such materials that this process can be repeated every few years. But, in the first place, this is not demonstrated to be a radical preventive of the septic diseases which result from nosocomial malaria, for there are well-authenticated reports of puerperal fever in new hospitals for maternity, and of pyæmia and septicæmia in new surgical hospitals among the first patients received into them. In the second place, I cannot believe that chemical science is so powerless as to fail in finding some means of wholly exterminating this miasm. The experiment has been tried already successfully in this city. . . . By the method employed by Prof. Doremus, or some other, improved by the progress of chemical science, who can doubt that in the future we shall find hospitals as securely freed from nosocomial malaria as we are now protected from small-pox by vaccination?"

Dr. Barker terminates his paper by a detailed account of a simple apparatus adopted by Prof. Doremus for the generation of enormous volumes of chlorine—5000 lbs. of black oxide of manganese being employed—in the successful disinfection of the surgical wards of the Bellevue Hospital.

The Law on Medical Mortmain in France.

The Civil Code expressly prohibits a medical practitioner from profiting from a will made in his favour by a patient whom he has attended during his last illness. Like most other laws apparently absolute, much depends upon their interpretation by the tribunals, and many questions arise of a puzzling character. Some of these having occurred to some members of the French Medical Association, they have applied, through the pages of the *Union Médicale* (February 3), to M. Guerrier, the standing counsel of that body, who has furnished the following replies:—

1. The French law annuls a will made by a patient in favour of the practitioner who attended him in his last illness. But

what is the exact meaning of "attending" and "last illness"? If a practitioner only sees the patient one or more times in consultation, is he debarred from accepting an inheritance? M. Guerrier states that the law has in view the practitioner who is conducting the treatment of the testator during his last illness, and does not apply to the consulting practitioner, who, being called "accidentally" to the patient, may inherit any legacy from him. The tribunals have an absolute power of appreciating the circumstances of the case, and of deciding whether the legatee should be considered as the habitual attendant of the testator, or only as a consultant called in to him exceptionally. The treatment in question applies, however, only to the disease of which the patient died. Thus, a practitioner may have treated a patient, say in 1870, who, having made him his universal legatee, died after a cold caught in 1875. Here the will, not having been made during the course of the fatal disease, is valid. 2. But if the practitioner has treated a patient for a long chronic illness, and then has ceased to attend him, the disease pursuing its course and terminating fatally, can he claim any legacy that may have been left him? He cannot, for the patient has died of the same disease for which he was treated. Not only does the law formally declare he cannot inherit, but its whole spirit is against his doing so. The legislator has proceeded under the idea that the practitioner gains a great influence over the mind of his patient, and especially when he is the subject of a fatal disease; and supposes that the patient, in order to obtain relief from his suffering, or under the hope of a cure, might be induced to make gifts which he would not have done had his will been entirely at liberty. The spirit of the law would be entirely contravened if the legacy or donation could be rendered valid by abandoning the patient during the latter portion of his malady. M. Guerrier acknowledges the right of the profession to protest as a body against such procedures being attributed to them, but unfortunately there are exceptions to be provided for; and when the law was framed the medical body perhaps did not offer the guarantees of honourable conduct that it does now. 3. Suppose a practitioner attends in his last disease a person of whom he is one of the natural heirs, is a will invalid which under these circumstances constitutes him universal legatee? To the general rule of the law, as stated above, there are two exceptions contained in it. One of these relates to special remuneratory legacies, made in accordance with the testator's disposing powers and to the services rendered. The other refers to relationship as far as the fourth degree inclusive, provided always that the deceased has no heirs in the direct line; at least, unless he in favour of whom the disposition has been made be not himself one of these heirs. 4. How is it to be ascertained that the testator has died of the disease for which he has been attended by the medical legatee? This is a question of fact, and it is for the tribunals to determine concerning the very varying circumstances that may present themselves. Thus, a man breaks his leg, and while under treatment makes his medical attendant his universal legatee. He recovers from the fracture, but remains ill until his death. In order to decide whether the legacy is valid, it has to be determined how long a time his valetudinarian condition continued after the fracture was healed, what were the precursory symptoms of death, how far the cure was only apparent, and whether the death was a consequence of the accident, etc.

The Perak Expedition.—In a despatch received at the Admiralty from Captain Butler, with reference to the operations against the disaffected Malays on the Perak River, he expresses his great regret that Dr. Randell, the principal Civil Medical Officer, Straits Settlements, was shot through the thigh. No other casualty had occurred.

Royal College of Surgeons.—At a meeting of the Council on the 17th inst., a letter was read from the President and Honorary Secretaries of the Obstetrical Society, enclosing a resolution of the Council, expressive of regret that the College was legally required to admit to the examination for the certificate of qualification in midwifery persons not possessed of any other medical qualification. It is satisfactory, however, to know that the women about to undergo the examination for the "L. M." will be submitted to an examination in anatomy, surgery, etc., by the chairman of the Board, as in the case of other persons who offer themselves, not having undergone any examination for a registrable licence or diploma—only one of whom, we believe, has yet succeeded in passing the examination.

REVIEWS.

Consumption and Tuberculosis: their Proximate Cause and Specific Treatment by the Hypophosphites upon the Principles of Stœchiological Medicine. By John Francis Churchill, M.D. Paris. With an Appendix on the Local Treatment of Respiratory Diseases by Specific Stœchiological Inhalants. London: Longmans, Green, and Co. 1875.

It is extraordinary that a man with the scientific knowledge and ability which Dr. Churchill evidently possesses should have written such a book as the bulky volume which lies before us. He wishes to convince the world that he is the greatest benefactor of society that ever lived, and that he has discovered the *elixir vitæ* which is to save the human race from the ravages of consumption; and he goes about his work in a way which no real philosopher would dream of adopting, and abuses those who refuse credence to his unproved statements and to his distorted and exaggerated arguments. He claims that the hypophosphites of lime and soda, and perhaps of some other bases, are specifics for phthisis, and that "their use is followed by recovery in every case where the local lesion has not gone beyond certain limits, and consequently that every patient may be cured, provided the specific treatment be used in time" (page 51). And further on (page 95): "The prognosis of a case of phthisis, when subjected to the rational use of the specific treatment, depends almost entirely on the pathological state existing at that moment; and a cure may be expected in all cases where the organic disease is not already sufficient to produce death, either directly by itself, or by the consecutive disturbance caused by its natural evolution." The earlier stages of phthisis "up to deposit in the first stage in one lung, and in the second in the other," are, according to Dr. Churchill, absolutely curable; while even the advanced forms will yield in the same way, if there is sufficient healthy lung-tissue remaining for the needs of the body, and if there are no such intercurrent complications as hæmoptysis, diarrhœa, amenorrhœa, renal disease, etc., or if bronchitis, pleurisy, pneumonia, or laryngitis are not superadded. These wonderful effects of the hypophosphites are due to their supplying the system with what, according to Dr. Churchill, it is deficient in, in tuberculosis—namely, an *un*oxidised phosphorus or phosphide principle; so that tuberculosis is really, if we are to believe him, the consequence of a state of phosphology. The proofs of this phosphology theory are brought forward by our author in, what he considers to be, an unanswerable manner, in a long and wearisome chapter, which bristles with the names of authorities whose opinions it must have taken much labour to collect, and in which every condition which is at present known to be favourable to the development of phthisis is shown to be (possibly) dependent, somehow or other, on a deficiency of the "phosphide" element in the tissues. We shall not take upon ourselves to argue either for or against Dr. Churchill's theory, the main features of which we have, we believe, accurately stated above. It is, no doubt, extremely simple and extremely seductive—if only it were true!

The proof of the truth of a theory is in its successful application in practice; but the hypophosphites might cure phthisis, and yet the theory might be wrong all the same. The question of practical importance is, Do they cure it? Are the results which follow the use of the hypophosphites so striking that it is impossible to resist the conclusion of their efficacy? Do they cure phthisis as well as quinine cures intermittent fevers, or mercury certain forms of syphilis? or have they even as marked an action as bromide of potassium has on some varieties of epilepsy? We are afraid that neither the perusal of the cases which Dr. Churchill adduces from his own practice or from that of other observers here and abroad will convince an unprejudiced mind that the hypophosphites have specific effects like those of the above-named drugs, which are specifics, if such exist, in medicine. Dr. Churchill complains that his drugs have not had a fair trial in England, because "the hypophosphites were doomed, like all discoveries of any value, to fall a prey to that horde of counterfeiters and pirates who are the real plague-spot (*sic*) of all inventive progress" (page 334); and he affirms that (page 336) "in London my own patients have frequently the greatest difficulty in obtaining from their own druggists my hypophosphites, or any reliable hypophosphite at all." This is a serious charge to make against a number of very respectable members of the community, and it seems to us that it ought not to be passed over unnoticed, especially as the hypophosphites of lime and

soda (Dr. Churchill's pet hypophosphites) had been introduced into the British Pharmacopœia, and were therefore officinal and prepared according to the most approved chemical processes, before the sentence quoted above appeared in print. We cannot believe that the morality of our pharmaceutists is at so low an ebb as Dr. Churchill represents it to be, or that they have any interest in selling adulterated preparations to their customers. But not only are the druggists at fault because the hypophosphites are not universally accepted as the specifics against consumption; the members of the medical profession itself are also seriously to blame. We are told in the preface that the thought which should be inspired by the alleged benefits which will accrue to mankind from the use of Dr. Churchill's hypophosphites "will only shatter itself against the peculiar intellectual and social idiosyncrasies as well as against the instinctive corporate egotism of a numerous, an influential, and individually a meritorious class," of which, nevertheless, Dr. Churchill is a worthy—or unworthy—member.

In another passage (page 381) we read that "the real difficulties which prevent the settlement of this question (of the value of the hypophosphites) are, however, neither of a scientific nor even of a commercial character; they are created by the personal hostility of some of the leaders of the profession here (in England), who have passed the word to stifle all public discussion of it," etc.; and, on the next page, we read of "the grievous want of anything like professional conscientiousness" as one of the hindrances "to the general diffusion and acceptation of my discovery." We are quite certain that such language as the above is totally uncalled for, so far as this country is concerned, where new discoveries of real value, or discoveries which are discoveries at all, are eagerly welcomed and discussed; and it is certainly undignified language for such a philosopher as Dr. Churchill claims to be to adopt. If the hypophosphites were really specifics for "consumption" (which, by the way, is only a general name for a number of destructive processes which attack the lungs), they would, by this time, have obtained the credit they deserved, and phthisis would be, year by year, becoming less and less frequent and severe. It is quite certain that no such result has been obtained, although the hypophosphites have been largely tried; and the reason why the profession remains apathetic, and does not express itself in their favour in the enthusiastic way which Dr. Churchill desires, is simply that these remedies have, like other novelties, found their level, and have proved neither better nor worse than several other "specifics" which, at various times, have been vaunted for the cure of phthisis.

We have not space to enter into a number of questions on which Dr. Churchill holds very strong opinions in one direction, and we hold very strong opinions in the other. When we tell our readers that the ordinary and tried remedies which have been proved to exert *some* influence at least for good on phthisis—*e.g.*, climate, cod-liver oil, etc.—are, according to Dr. Churchill, next to useless, and that it is only from the hypophosphites that any real benefit can be expected, they will have some notion of the exaggerated pretensions and unsupported statements which occur in the pages before us. Of the actual value of the twenty-four cases which the author cites as evidence of the value of the hypophosphites in his own practice, some idea may be obtained when we mention that although his third edition was published in 1875, he gives no report of six cases later than the year 1860, nor of six others later than 1861, while five were last heard of in 1862. Now, if the treatment were really specific there would have been (we should have thought) good reason for inserting much later reports of the patients whose prolonged lives had proved its efficacy. One conclusion which is drawn by Dr. Churchill at page 365 of the present work, as to the increased duration of life in the statistics of consumption published by Dr. C. J. B. Williams and Dr. C. T. Williams being due to the use of the hypophosphites, has recently been denied by Dr. C. T. Williams, in the second of his Lettsomian Lectures, in the following words:—"The number of patients taking the hypophosphites, compared with the whole number, was so insignificant as not to affect the after-history one way or another." We can well conceive that a large number of Dr. Churchill's other statements might be similarly denied.

We must conclude this notice by a few words about the new "Stœchiological Inhalants" which Dr. Churchill has discovered, or says he has discovered; of which he "deliberately asserts (page 401) that they are *a specific remedy for all inflammatory conditions of the respiratory organs* (the italics are Dr. Churchill's), and that by them the following diseases *may be cured under certain ascertained and scientifically-determined conditions, if the physician only brings the remedy to bear in time.*" The diseases in which Dr. Churchill has now used the inhalants "with the same uniform success" are "consumption, bronchitis, pneumonia, pleurisy, syphilitic phthisis, asthma, hay fever, whooping-cough, laryngitis (whether simple, tubercular, or syphilitic), loss of voice, sore throat, diphtheria, pharyngitis (simple, granular, or specific), and croup"! The reader will, perhaps, wonder what these marvellous remedies are which produce such unheard-of results. Surely the man who has made their discovery will wish to enlighten his fellow-creatures a little as to their nature, and to gain the endless gratitude of humanity by diffusing information about an advance in medical progress which throws vaccination far into the shade! But no; instead of gratifying our curiosity, he wraps himself in a mantle of impenetrable dignity, and only favours us with a chapter on the rights of inventors, and affirms that his secret is his own, and that he intends to keep it.

Considering that "Stœchiological pathology (page 212) is the primordial idea which will do for medicine what the theory of gravitation has done for astronomy," we deeply regret that we are still to remain in such profound ignorance of its methods. The following anecdote, with which we quit the stœchiological inhalants and Dr. Churchill's book, may possibly to some extent explain the author's dislike to publishing the details of his stœchiological system. A friend of ours, on whose accuracy and probity we can entirely depend, while on her journey to Mentone, met at Lyons a lady who was about to pass the winter at Cannes and Mentone by Dr. Churchill's advice. This lady had been in London using the stœchiological inhalants for five consecutive months; and their great discoverer had received a respectable fee from her almost daily during that period.

Thirty-sixth Annual Report of the Registrar-General of Births, Deaths, and Marriages in England. (Abstracts of 1873.) London: George E. Eyre and William Spottiswode, Printers for her Majesty's Stationery Office. 1875.

The results of civil registration, as shown by the tables published in this volume, prove that the conditions of the year under notice (1873) were favourable to the public health. Employment was abundant, and wages were good. The birth-rate was high, while the death-rate, with only three exceptions, was the lowest on record. Sanitary jurisdictions are now established all over the country, and many hundreds of the medical profession, acting as officers of health, are devoting their professional abilities to the advance of sanitary work, ascertaining the causes of sickness and death that are within their control, and adopting measures for the prevention of disease. The excess of registered births over registered deaths in the year 1873 was 337,258. The number of English emigrants returned by the Marine Department of the Board of Trade was 128,271, but the numbers who returned to this country were not recorded; if they were—assuming civil registration to be nearly perfect, as it will be soon after the operation of the new Registration Act in 1875—the means would exist for determining the actual increase of population in each year from these recorded facts. At present the population is estimated from the rate of increase observed in the thirty-years 1840-71. By this estimate it amounted at the middle of 1873 to 23,356,414.

In London the mortality was at the annual rate of 24·2 per per 1000 over the thirty-four years 1840-73; it was as high as 30·1 in 1849, 29·4 in 1854, and 26·5 in 1866, when cholera was epidemic; it was as low as 21·5 in 1872, and 22·5 in 1873, the mortality having never been so low for any two consecutive years since 1840, and by fair inference never so low in any two years since London existed. It is stated to be a general law that the mortality increases with the density; and this would, no doubt, have been observed in London, had it not been for the increased purity of the water-supply, the new system of drainage which was then brought (partially) into operation, and some improvement in that most important condition of life—lodging. The violent deaths in London show no diminution; they have progressively risen from 2247 in 1861 to 2843 in 1873. There is but little increase of homicide or suicide to account for this, and a decrease of executions; but in each week of the year 45 people of both sexes, on the average, are killed by negligence or accident in

London. The deaths by violence in the streets in five years were 1028. Some idea may be formed of the rapid rate at which London, as included in the tables of mortality, has increased from a perusal of the following particulars. The London of the tables has an area of 122 square miles; it extends down the Thames from Fulham to Woolwich, and climbs the hills to Hampstead on the north, and Norwood on the south side of the river. The mean elevation of the houses above Trinity high-water mark at the last determination was thirteen yards; but the elevation ranges from four yards *below* in Plumstead Marshes, to 143 yards in Hampstead *above* that mark. The hills are higher than the hills of Rome; the river at night, reflecting thousands of lights, eclipses the Tiber. Some interesting particulars are also given which point conclusively to the enormous depreciation in the value of money at the present day. For instance, it has been shown that during the twenty years ending December 31, 1873, wheat has risen 23 per cent. in price, beef 50 per cent., mutton 40 per cent., and potatoes 31 per cent. Confining the observations to more recent periods, and taking only the average prices in the three years 1868-70 and the three years 1871-73, it is found that wheat has risen about 9 per cent., beef 13 per cent., mutton 20 per cent., and potatoes 7 per cent.

The volume contains many valuable statistics on pauperism, marriages, and other subjects; and the tables, which are very numerous, are compiled with great care and minuteness.

GENERAL CORRESPONDENCE.

"QUESTIONABLE CONDUCT OF A MEDICAL MAN."

Letter from Dr. G. de Gorrequer Griffith.

[To the Editor of the Medical Times and Gazette.]

Sir,—Under this head my name is mentioned, and I am in the report gravely censured, and seriously wronged. When I set before you and your readers *all* the facts of the case, I am confident you will see things in quite a different light. I had only one object throughout—duty.

In your next issue, I trust, you will accord me full space to answer your strictures upon me, to set right all the errors in your article, and to state the case in its entirety. For the present I shall simply ask that you will grant the *same* prominent position to this note that you have to your article; and that your readers will suspend their judgment, and not prejudge the matter. I am prevented sending you my reply this week, because I have applied to the Home Secretary to order a re-inquisition, and to place the case in the hands of the Solicitor of the Treasury. I am, &c.,

G. de Gorrequer Griffith.

9, Lupus-street, Pimlico.

P.S.—One thing only in your report I should wish to correct at this time, that is, that there was "an angry altercation." On my part I entered into no angry altercation; I was too much impressed with the gravity of the case.

[*** We shall be heartily glad should Dr. Griffith succeed in showing that his conduct was "unquestionable."]

A BERRY WHICH CAUSES DEAFNESS.

Letter from Mr. E. W. Berridge.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have just received a letter from a colleague in New York, stating that Dr. Skinner, formerly medical director of the Paraguayan army, but now in London, informed a friend that the soldiers on the march ate a berry which caused deafness. If this should meet Dr. Skinner's eye, I should feel obliged if he would communicate to me, or to your pages, a full account of the effects of said berry, the name of it, and where it was obtained.

If any of your readers know Dr. Skinner's address, I should be obliged to them for it. I am, &c.,

E. W. Berridge, M.B. Lond.

4, Highbury New Park, N., February 14.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, February 2.

William Overend Priestley, M.D., F.R.C.P., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Charles J. Brookhouse, M.D. (Deptford); Martin Brunges, M.R.C.S.; J. H. Crowdace, L.S.A. (Beverley); J. N. Jakins, M.R.C.S.; Leslie Jones, M.D. (Blackpool); Charles Knott, M.R.C.S. (Portsmouth); W. H. Leighton, M.D. (Lowell, Mass.); John H. Parsons, M.D. (Toronto); G. Sirignani, M.D. (Naples); F. Wells, M.D. (Cleveland, Ohio); and J. C. Wilkinson, L.S.A.

New Chloroform Inhaler.

Dr. Crombie exhibited an apparatus for enabling patients to inhale chloroform by themselves in safety. A spirit-lamp filled with cotton-wool was used to absorb the chloroform, and so render it practically solid, so that it could not be upset. An indiarubber ball and tube acted as a spray-producer, the patient ceasing to pump as soon as faintness was induced.

The President thought it might be of use to soothe nervous patients in the early stage of labour.

Dr. Bantock doubted whether it was safe to allow the public generally to be their own administrators.

Dr. Cooper Rose, whilst expressing his admiration of the ingenuity exhibited by the inventor, thought apparatus of all kinds were more or less objectionable. He was in the habit of saturating a few folds of blotting-paper in the bottom of a tumbler, and allowing the patient to hold it over her mouth and nose. Before anæsthesia was induced, the glass fell harmlessly into the bed. The bottle he retained possession of himself.

Dr. Savage acknowledged that patients accustomed to take chloroform should have a safe apparatus, but he thought that both chloral and chloroform were doing much harm, and should not be administered without medical supervision.

Fibroid Tumour of the Uterus.

Dr. Daly exhibited a specimen removed post-mortem which had been diagnosed during pregnancy, and had caused serious flooding at the time of parturition. The patient, however, progressed well for a fortnight, when swelling of the right calf, with pain, occurred, and she ultimately died on the twenty-seventh day.

Dr. Savage inquired as to where the temperature had been taken; to which

Dr. Daly replied in the axilla and mouth.

The President inquired if the specimen had been immersed in a disinfecting fluid. He recommended that all specimens relating to women who had died shortly after delivery should be thoroughly disinfected before being brought to the Society, lest perchance the Fellows in handling the preparations should convey poison to other patients.

Dr. Cleveland inquired if any injections had been made into the uterine cavity.

Dr. Daly, in reply, stated that he had employed Higginson's syringe, the tube being carried up to, but not within, the os uteri.

Extra-Uterine Fœtation.

Dr. Chalmers exhibited a specimen removed post-mortem that had not been discovered during life. The patient, aged fifty-four, had eight children—the youngest twenty-four years old. Eight or nine years ago she believed she was pregnant. About the fifth month she became ill, and passed something. She never menstruated afterwards. Lying between the uterus and the rectum was a piece of bone resembling a portion of vertebra; and the wall of the tumour was formed by a portion of bone resembling some portion of the fœtal skull.

The President thought the case interesting, and suggested that Dr. Galabin should examine the specimen in conjunction with Dr. Daly.

Double or Dicotyledonous Placenta.

Dr. Greene exhibited a specimen of two placentæ enclosed in one membranous bag. The separation was more distinct when the specimen was fresh. Each placenta had a distinct plexus of veins terminating in a funis of about four inches in length; these then coalesced, and the remaining portion in

nowise differed from an ordinary funis. There was only one healthy child born.

Dr. Hayes questioned whether it was a fair specimen of a double placenta. There was an atrophied portion in the centre which gave it that appearance.

The President thought it of sufficient interest to preserve in the museum.

The adjourned discussion on Dr. Meadows' previous communication, "Note on the Post-mortem Diagnosis of a Nulliparous Uterus," was then proceeded with.

Dr. J. Braxton Hicks brought forward the uterus that had been the subject of much discussion recently. There were certain points of a medico-legal bearing, chiefly two—First, the effect of drying. Decomposition had produced loss of tissue and thinning of the walls, which subsequent drying had intensified. Its relative shape when filled out was the same as when it was dry. Some experiments he had made upon fresh uteri by drying and again moistening had given similar results. The second point, which was the principal one under discussion just now, was as to the possibility of saying whether any given uterus was that of a woman who had borne children. It would doubtless be conceded that the uterus of a woman who had been delivered within a twelvemonth would be very distinguishable from that of a woman who had never conceived; but after senile atrophy had set in, it might be difficult to distinguish it from a virgin uterus.

Dr. Savage thought the question for consideration was whether in any given uterus it was possible to decide whether it had ever borne children. Until it could be determined what might be the standard measurements of a pattern uterus, no table of measurements could be of any avail. The normal uterine variations in this respect were infinite, and bore no constant relation with "parity" or the contrary. The higher arching of the fundus and greater distance between the insertions of the Fallopian tubes, relied upon as one of the leading signs of previous pregnancy, was hardly to be depended upon.

Dr. Edis exhibited several specimens of uteri, both nulli- and multi-parous. Their weights and measurements had been accurately determined, and their general condition noted as regards the arching of the fundus, form of the cervix, shape of the os uteri, etc., and, in addition, the appearances presented on section of the ovaries. In the case of one uterus, the subject of a recent delivery, the appearance of the vessels in the walls on section was very distinct; but as regards forming a definite opinion in doubtful cases, further research seemed necessary.

Dr. Bantock alluded to two cases of atrophy where from the appearances of the uteri it would have been impossible to say whether they had borne children, although in one instance this had been the case. In reply to Dr. Williams, Dr. Bantock said the patients were still living.

Dr. Meadows stated that the object of his previous note had been simply to raise the question whether there were any definite signs by which previous pregnancy could be diagnosed. As a general rule he thought no absolute, certain opinion could be given.

Mr. Bond explained that in the case that had originated this discussion he had not attached any importance to the state of the uterus. When first removed from the body it was excessively small, and the walls as thin as stout brown paper; all fibrous structure had disappeared, and it had a soapy feel. When soaked in weak spirit and water, it enlarged to three times its original size, and assumed the flaccid condition it now presented. He thought, from the large size of the cavity, as compared with the thinness of the walls, that it was multiparous, the great thinness of the wall being due undoubtedly to the general drying-up of the body; but no one could possibly give a positive opinion regarding it.

Dr. Barnes confessed that he saw no positive grounds free from fallacy by which we could say a uterus had borne a child. We could not insist upon the weight or size, as the uterus might be enlarged from hyperplasia. One condition had not been sufficiently insisted upon, and that was the arching of the fundus externally between the broad ligaments. The condition of the os uteri, too, might throw some light upon the question, but this was open to fallacy, as the split edges and lobed appearance of the cervix might be due to incision, and not to parturition. If there were no appearances of the breasts or abdominal walls to guide us, the condition of the uterus alone must be received with very great caution. The arching of the uterus, the split condition of the cervix, and the size of the uterus might afford fair presumptive evidence of pregnancy.

Dr. John Williams remarked that the diagnosis of the existence or non-existence of a previous pregnancy could not be made from the shape and size of the body of the uterus, thickness of its walls, form of its cavity, and deformities in the os and cervix, for all the changes which are brought about by pregnancy and labour in the above characters may be produced or simulated by other causes—as polypus, fibroid, and other diseases. There were, however, two appearances which were of greater value in deciding this point; and one of them, when found, was absolutely diagnostic of pregnancy having previously existed—viz., the condition of the sinuses in the walls of the uterus under the placental site. These become filled with clots, which become organised, and are said to have been seen six months after parturition. The second point was the condition of the vessels in the walls of the uterus. They form small patent tubes, with thick yellowish-white walls, and give the tissue a worm-eaten appearance. This is, so far as his experience went, permanent. It has been well marked fifteen years after parturition, and, so far as he had been able to ascertain, it was not simulated by any disease of the uterus.

Dr. Barnes stated that the condition of the cervix afforded but negative evidence. He had seen a conical cervix with a small round os uteri where the woman had had children.

Dr. Bantock inquired how Dr. Williams' remarks would apply to superinvolution.

Dr. Snow Beck doubted if the clots in the uterine sinuses remained even three or six months. He had examined very many uteri, and never found these clots. He had at present one uterus from a patient who died two months after parturition, and he was unable to detect the slightest evidence of clots in the sinuses or in any parts of the uterus. There was no sign by which we could possibly affirm that a woman had had children.

Dr. Savage said he believed Dr. Beck was right. The uterine sinus system was a thing of the past; it received its death-blow from Dr. Hicks, whose exhaustive papers on the subject had already appeared in the *Transactions*. In separating placentæ prævia from the uterus, the finger came in contact with no large veins; nothing was easier than the detachment of the placenta. As was well known, hæmorrhage ceased on its complete separation—the uterus, of course, remaining still uncontracted. He thought that with no history given—merely a uterus to examine—we were not justified in giving any opinion, except that given by Dr. Meadows, as regards nulli- or multi-parity.

Dr. Rogers said he had now had an experience of over thirty years in examining uteri, and had come to the conclusion that a positive opinion, founded on precise and unimpeachable data, could not be given. He had brought with him two specimens of virgin uteri for inspection, differing materially from each other. He would be glad if other observers could substantiate the statement made by Dr. John Williams.

Dr. Hayes called attention to the remarkable thinness of the uterine walls as compared with the large size of the cavity in the specimen exhibited by Dr. Hicks. He thought the thinness could be explained partly by the relaxation of the muscular fibres after the disappearance of the rigor mortis, and partly by the desiccation of the tissues. Doubtless, too, the duct-like disintegration of the tissues during the lapse of time had something to do with it. It was impossible to suppose that the process of soaking the dried uterus could ever permeate the tissues with fluid in the same fashion as the heart during life.

The President expressed a hope that, in future debates of the Society, Fellows who desired further information from speakers would address their interrogatories through the President, as it was a great inconvenience for any Fellow to cross-examine those who had spoken, and was likely to interfere with the usual course of discussion.

A committee, consisting of Dr. Hicks as chairman, Dr. Savage, Dr. Meadows, Dr. John Williams, Dr. Snow Beck, and Mr. Randall, were appointed to investigate the subject further, and to report to the Society.

The President gave notice that at the next meeting Dr. Arthur Farre would send some specimens, and Mr. Jonathan Hutchinson would read a paper on the importance of studying the diseases incidental to parturition in the lower animals.

THE PATHOLOGICAL SOCIETY.

TUESDAY, FEBRUARY 15.

Mr. GEORGE POLLOCK, F.R.C.S., President, in the Chair.

ADJOURNED DISCUSSION ON SYPHILIS.

SIR JAMES PAGET said that in the main he agreed with Mr. Hutchinson, and was at one with him when he said that "in syphilis we have but one malady and one virus," and that "in syphilis we have to deal with a specific fever of prolonged but definite stages," which has periods of incubation, outbreak, and efflorescence, and is exceptionally followed by sequelæ, "to which we give the name of tertiary symptoms." Sir James said that he would first notice the relation of the tertiary symptoms, and he would try to point out a close resemblance between these and the sequelæ of fevers. Mr. Hutchinson had stated that the chief characters of these were that they were (1) non-symmetrical, (2) non-contagious, and (3) non-inheritable. Sir James said that he was gratified to find the subject of symmetry in disease so well upheld: the importance of this seemed to have lately been neglected, as characteristic of blood disease. He would recommend Dr. Budd's original paper on this subject, which went to show that diseases that are symmetrical are due to a morbid product in the blood. The last thirty years had shown that the nervous system had a larger share in such effects than had been supposed, but the main facts still held good, and he would add that the products or appearances of such diseases were due to the combination of the morbid material with the texture of the part. With respect to the question whether syphilis continues to be a blood disease after cessation of symmetrical symptoms, he would ask them to look at other fevers. With a very few exceptions the sequelæ of these were non-symmetrical. Thus, pyæmic affections were not symmetrical, and its chronic symptoms even less so. Like syphilis, they selected particular tissues, especially connective tissue and bone. Again, intermittent fever surpassed syphilis even in the hold it had of the blood: syphilis was said to persist thirty years, and so did ague. And the sequelæ of ague were not symmetrical, such as brow-ague or migraine. Once more: in the case of typhoid fever, it was seldom indeed that its sequelæ were symmetrical. In twelve cases of necrosis after typhoid he had seen but one symmetrical; he had never seen phlebitis symmetrical, nor any of the nervous affections which might follow typhoid, excepting paraplegia; nor periostitis of the ribs. We might therefore conclude that the syphilitic fever remarkably resembled all these other fevers in being non-symmetrical in its sequelæ; and in this it agreed with all other blood diseases in later stages—that it became irregular in the site, size, and form of its appearances. Thus, psoriasis in its later periods ceased to be symmetrical when it spread from the limbs; so with pityriasis versicolor when declining; so with rheumatic gout; and, lastly, so did cancer, when thoroughly infecting, show no symmetry. Therefore, Mr. Hutchinson's question—whether in absence of symmetry there was evidence that blood disease had ceased—might be answered by saying that syphilis agreed, in this respect, with all blood diseases that begin symmetrically. And Sir James apprehended that the reason of this was due not only to remedies, but to excess of normal nutritive forces over morbid, which gradually broke up the disease and made it non-symmetrical. As to whether this evidence of absence of blood disease supported Mr. Hutchinson's subsequent hypothesis of the origin of tertiary from residual secondary disease, he was more doubtful; for if the secondary were symmetrical, why should not the tertiary be so as well? He (Sir James) would venture to improve on Mr. Hutchinson's hypothesis, and would say that certain of the secondary, even, might be formed in the period of irregularity, in the time of non-symmetry, and that their residue appeared in the tertiary period. But he would still venture to believe that syphilis, as long as it appeared at all, was a blood disease; for—(1.) The local disease could hardly be quite spontaneous, and yet syphilitic outbreaks seemed to be so. (2.) In local disease the kind of the disease was in proportion to the force; but in syphilis very small external force would produce serious disease. (3.) The forms were very characteristic and easily diagnosed, whether ulcers, joint-disease, or periostitis. And, lastly, as another sign of its specific character, tertiary syphilis frequently required specific treatment; this, after all, might be but local, yet it had to be administered through the blood. He would hold, therefore, that to the last syphilis must be regarded as a blood disease, and that finally it became irregular, and ceased, losing its specific character. Sir James next proceeded to discuss Mr. Hutchinson's ingenious hypothesis that the gummata of the tertiary stage resulted from renewed growth left over in the earlier ones. It was very probable that the exanthemata left residues which might similarly spring-up on occasion. He had published, some years ago, an instance in himself where a residue was ready to break out; where, after five years, the scars of leech-bites on the wrist inflamed and ulcerated on exposure to the heat of Italy, and did so repeatedly, every year, on exposure to the same influence, so that not for four years did they settle down. And again, four years ago, he had had erysipelas after septic poisoning in the left arm; this recovered without a blemish, and seemed well, but when, in the course of this winter, he took cold baths instead of warm, on every application of cold the left arm became livid,—such a difference from its fellow as would spoil the symmetry of any constitutional disease with which he might happen to become affected; a true residue. It had been said, "Let no man be counted happy till he is dead"; and he would say, "Let no man be counted healthy till he is well examined after death." There was one more point to be noticed, and here he would differ somewhat from Mr. Hutchinson. Mr. Hutchinson had discussed the relation of syphilis to other diseases, and asked whether syphilis in any way predisposed to scrofula or tuberculosis. He (Sir James) would say it did so in no other sense than that, like any other fever, as typhoid, rheumatism, or gout, it impaired the health and increased the predisposition. With respect to the relation between lupus and syphilis, he agreed with Mr. Hutchinson wholly; it was not syphilitic, but distinctly tuberculous. If there were a syphilitic lupus, it was only by the subject becoming syphilitic after inheriting a tuberculous constitution. But when Mr. Hutchinson said that we do not, as a rule, observe any modification of syphilis by struma, tubercle, gout, or psoriasis, Sir James would differ wholly from him. Such modifications had to be carefully studied. Even in the primary sore, the effects might be very different. Out of the constitution there came a modified result, just as might be seen in vaccination or in the facts of the old history of inoculation. A similar modification had to be studied in the secondary period; and much more in the tertiary, where the constitution came to have more and more share in the disease. He would call such a disease a mixed disease, and say that in a scrofulous patient the disease would be hard to separate from scrofula, and that the treatment must be combined to be successful. So in gout, rheumatism, and the neurotic temperament; all should be treated remembering not only the specific but the constitutional disease. The facts observed in the sequelæ of other fevers proved the same. Why should phlebitis or necrosis occur in some persons only? It was from a difference in constitution. He knew of a case where five members of a family all had nervous symptoms after typhoid fever; and a bad case of phlebitis after typhoid in a gentleman, several of whose relations had some disease of veins. Few diseases were so variable in their phenomena as syphilis. Why should one poison cause such different effects? It was not because of the poison nor of the treatment; it must therefore be from variety of person—of the soil in which the poison flourished.

Dr. WILKS began his remarks by comparing the present with the former condition of the question of visceral syphilis, and referred to the large share which the Pathological Society had taken in its advancement. His interest in syphilis was naturally chiefly pathological; there was no disease like syphilis with the cause so obviously to be discovered. A small particle of virus was introduced into a man, and worked changes upon his whole system, affected his children, and perhaps the third generation. There was no disease so interesting as this. Coming to particular points, Dr. Wilks said that, first, he agreed with Mr. Hutchinson that syphilis was an exact counterpart of other febrile diseases—a disease, *per se*, with sequelæ. To him the words "secondary," "tertiary," etc., had no meaning: a man had syphilis or he had not. Fibroid nodules occurred in his body, where they might remain for years, or might grow or otherwise change. And there was something previous to this: during the exanthem stage there was enlargement of the liver and other organs. We wanted much to know what this condition was; it was a problem for the Society. Thus a patient might have

enlarged testes, consolidation of the upper part of a lung, nodes, etc., and under treatment all would disappear. What this condition was we wanted to know. In syphilitic children the liver, though large, might appear healthy; yet young tissue was found in it—no doubt, absorbable. Acute jaundice also had been several times recorded in early syphilis, and even acute atrophy. Dr. Wilks's chief object was to insist upon the opinion that the old impression was incorrect which represented the visceral lesions as secondary to previous symptoms: he held that they were not secondary, but contemporary; yet they were not frequently seen. His impression was that the two affections bore an inverse relation to each other—the internal, and the ordinary visible symptoms. Thus, in scarlatina the old opinion was that kidney disease was a sequel; but he held that there was a poison of scarlet fever which showed itself on skin, throat, and kidney, and it might take either direction chiefly. The same, he believed, occurred in syphilis. At first he had found difficulty in connecting visceral lesions with syphilis, from the very want of ordinary symptoms; and this, and subsequent experience, only strengthened his opinion of the inverse relation of the external to the internal affections. Again, he could confirm what Mr. Hutchinson had said about gummata never suppurating. Nodes appeared to do so, but did not really; and lately he had seen a case where a fluctuating tumour in the liver of a syphilitic contained not pus but *débris*. Syphilis might go on for many years; could we tell its stage by the symptoms? It might be arrested, and recommence. The so-called relapses of syphilis should have no real existence. Dermatologists spoke of scaly eruptions in the last stages, but this might be chiefly palmar psoriasis. Information was again required on this head—as to whether the stage could be learned from the rash. Could an adult obtain the disease at any stage? Some said it was possible. The "secondary" disease was certainly contagious, but was the poison precisely the same? He believed disease was chiefly communicated from women with secondary disease, men getting the primary. What Mr. Hutchinson had said about a primary chancre having, perhaps, a secondary deposit in it, had been, perhaps, better put by Mr. Lee. As for himself, he would maintain that when a man had an indurated chancre he had not syphilis any more than a person with an inoculated spot of small-pox had small-pox; the diseases were then incubating only. As to the course of syphilis, it had been maintained that it might end, or be made to end, by inoculation. Inoculation had not been approved of in England, but it had been found that a tartar-emetic eruption was equally successful in shortening the disease, as if the poison of syphilis had thereby been eliminated. With respect to the relation between syphilis and scrofula, he was inclined to go with Mr. Hutchinson and Sir James Paget. He could always tell syphilis from scrofula, and if he happened to make an error of diagnosis it was discovered by the result of treatment. The teeth, jaws, and head were altogether different in scrofulous children.

Dr. Hilton Fagge said there was another point of view from which syphilis might be approached, and one of great importance—namely, its effect in producing lardaceous disease. If lardaceous disease exist, we might assume that it was due to either chronic suppuration or syphilis; and if the former cause be not present, it might be concluded that the subject had syphilis. A very general view was that syphilis produced lardaceous disease through suppuration, but this was not correct. No explanation could be given. The relation of the two diseases, however, had a bearing upon the relation of syphilis and tubercle. Dr. Fagge did not believe in syphilitic phthisis: thus, in a case of syphilis with gummata in the viscera, the supposed "gummata" in the lungs proved to be simply pneumonic spots. Phthisis in syphilis was probably due rather to a diffused influence on the general health, just as was lardaceous disease. This opinion Dr. Fagge said he had formed in spite of himself, impressed as he was with the persistent characters of syphilitic skin diseases. He would not, therefore, mix up the two diseases. But if syphilis could produce lardaceous disease, it might also produce phthisis, and perhaps other affections as well.

Mr. Berkeley Hill said that the opinion which he had intended to express had been in a great measure anticipated by Sir James Paget. As to whether syphilis was a blood disease from first to last, he believed it was; and one point seemed to be strong evidence of this. Contagiousness generally subsided, it was true, when wide-spread eruptions ceased; but a "repetition" of his symptoms might make him contagious—and that when no special phenomena were present—to his offspring. If we traced the history of syphilis in a family of children, the first were found to be born dead; the next were born healthy, but became diseased, presenting the early "secondary" form of syphilis, secretions from them causing primary, secondary, and tertiary symptoms, just as if from a primary. All this was strong evidence of blood disease. Again, the same drugs were efficient at all stages, and tertiary disease could not be cured by local applications only. There was less value in the fact of symmetry in syphilis, because it was less striking than in some acute diseases to which Mr. Hutchinson had likened it. Dr. Wilks had said that those who suffered from internal syphilis had few external phenomena. He (Mr. Hill) had long held this same view; and, conversely, if a man had much externally, he would probably escape visceral lesions. Again, with regard to its gradual expiry: among infants the virulence of the disease declined with later individuals; and so Mr. Hill believed that he had observed that if a man acquired the disease from a person in whom it is getting exhausted he would have a slight form, but if severe he would have a severe form; and a man with a lymphatic temperament was much more likely to suffer than one with a sanguineous. With respect to dualism, it could not be said to be dead, for the best text-books in English, French, and German represented the soft chancre as not connected with the true.

Mr. De Méric said that Mr. Hutchinson was in some danger of being carried away in attempting to throw great uniformity into his view of syphilis, and confusion might be the result. In criticising the address he would take the heads in turn. As regards the virus, he believed that Mr. Hutchinson was going a step backwards in maintaining that there was one only. To this view, which had been held by Hunter, Sir James Paget had subscribed, while he magnified the important influence of the individual. He (Mr. De Méric) especially objected to Mr. Hutchinson's term "germs" of syphilis, and spoke strongly against the view that dualism must be abandoned. Next, as to the analogy between syphilis and the fevers, this was remarkably close, but should not be forced, for the fevers were not hereditary. The primary chancre might disappear by absorption of the surrounding induration, or this might crumble down and phagedæna occur. But it was going too far to say that syphilis was the originator of all phagedæna, when cases in all classes of society were taken into account. Regarding the appearances in the different stages, Mr. Hutchinson had been very happy in his analogies, but the term "tertiary stage" might still be used, although it had been ignored by him. When the sequelæ occur was there present a blood disease? He did not believe in the facts of so-called symmetry—first a chancre, then a roseola, and so on. Symmetry did not seem to be of much importance; and in the tertiary stage there was want of symmetry, the disease being truly on its decline. Mr. De Méric did not think that Sir James Paget's illustration of the breaking-out of leech-scars quite fitted. With respect to scrofula and syphilis, he believed that what syphilis truly did was to weaken the constitution.

OBITUARY.

HERBERT WALKER BUDD, F.R.C.S.

We deeply regret to record the death of Mr. Budd, of Worcester, at the age of sixty-three years, the Senior Surgeon of Worcester General Infirmary, and the oldest practitioner in the city. On Friday, February 4, he had made several visits to his patients, and had returned home to prepare for an intended journey to London; but whilst so engaged he fell down in the presence of his son Mr. H. G. Budd, and expired—it is supposed, from heart disease—within a few minutes afterwards. Mr. Budd's family have long been established in Worcester. His grandfather, Mr. Penuel Cole, was House-Surgeon at the Worcester Infirmary for many years; and his uncle, Mr. Herbert Cole, filled the same office. His father was a major in the East India Company's Rifle Corps, and Mr. Budd himself was born in India. A pupil of his uncle, Mr. Herbert Cole, he afterwards studied at St. Bartholomew's Hospital; and after taking the membership of the College of Surgeons in 1835, he commenced practice in Worcester nearly forty years ago. In 1854, after a keen contest, and against three other competitors, he was appointed Surgeon to the

Worcester Infirmary by a large majority of votes. In 1859 he took the Fellowship of the Royal College of Surgeons. Up to the day of his death he devoted his time and great ability in the most scrupulously conscientious manner to the care of his hospital and private patients. To him, as well as to Carden, is largely due the credit of having established on a firm footing the now frequently practised skin-flaps of amputation, especially the long-flap operation in amputation through the condyle of the femur.

Mr. Budd was an ardent lover of his profession, and would, in the most enthusiastic manner, seek information, and make himself master of new inventions useful to his calling. But he was not only willing to seek knowledge—he was very capable of imparting it; and with a mind well stored with facts, medical and scientific, as well as with much general and literary information, he enjoyed nothing more than an intellectual discussion with some genial companion. In his own home he was the pattern of the head of a family: kind and indulgent to those around him, he actively directed and took part in all the intelligent and agreeable recreations of a refined household; and he was besides a most hospitable host. His sudden death has excited sorrow among all classes of the citizens of Worcester, and he will long be remembered in the city and its neighbourhood as well for his genuine and kind disposition, his frank and gentle manner, as for his able and useful public and private services.

Mr. Budd has left behind him, to mourn an irreparable loss, a wife and two daughters (of whom one is married to Dr. Oswald Foster, of Hitchin), as well as one son, Mr. Herbert Goldingham Budd, Assistant-Surgeon to the Worcestershire Militia, and Surgeon to the Worcester Ophthalmic Hospital.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, February 8, 9 and 10, the following were the successful candidates for the licence to practise Medicine:—

Armstrong, George Richardson.
Christal, John.
Dinnen, William Thomas.
Geoghegan, Charles Edward.
Hart, Francis Josiah.
Masterman, George Frederick.
O'Hagan, Patrick John.
O'Mullane, Eugene Joseph.
Orpen, Arthur Herbert.
Phelan, Patrick Charles.
Young, Alexander Thomas.

For the licence to practise Midwifery—

Christal, John.
Geoghegan, Charles Edward.
Hart, Francis Josiah.
O'Hagan, Patrick John.
O'Mullane, Eugene Joseph.
Young, Alexander Thomas.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 10:—

Allen, Morgan Henry Lawrence, St. John's-wood.
Ayres, James William, Ramsgate.
Gurly, Walter John, Bacup, Lancashire.
Jaquet, John Lewis, 27, Vincent-square, S.W.
Reilly, Frederick James, Globe-road, Mile End.
Walker, George Abraham, Aldbrough, Darlington.

The following gentlemen also on the same day passed their primary professional examination:—

Le Quesne, Edwin Joseph, St. Bartholomew's Hospital.
Poland, James Harry, Guy's Hospital.
Young, John, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Clarke, J. Lockhart, M.D., M.R.C.P., F.R.S., Honorary Consulting Physician for Nervous Affections to the Hospital for Diseases peculiar to Women and Children, 3 and 4, Vincent-square, Westminster.

Owen, Edmund, F.R.C.S.—Consulting Surgeon to St. John's-wood and Portland Town Dispensary, *vice* G. G. Gascoyen, deceased.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, Fleet Surgeon George Fletcher Banks has been placed on the Retired List of his rank from the 3rd inst.

BIRTHS.

Lichtenberg.—On February 10, at 47, Finsbury-square, the wife of George Lichtenberg, M.D., of a son.

Playfair.—On February 13, at 31, George-street, Hanover-square, the wife of W. S. Playfair, M.D., of a daughter.

MARRIAGES.

Alsop—Fisher.—On February 12, at the parish church, Epsom, Anthony, eldest son of the late Anthony Alsop, M.D., of Bolsover, to Anne Louisa, only daughter of George Spencer Fisher, Esq., of College-road, Epsom.

Furse—Hosegood.—On February 10, at the parish church, Thelbridge, Edwin Furse, M.R.C.S. Eng., L.S.A., South Molton, Devon, to Betsy Spencer, only daughter of the Rev. Samuel Hosegood, Rector of Thelbridge, North Devon.

Pocock—Barratt.—On February 12, at St. Mark's, Myddleton-square, F. Ernest Pocock, M.R.C.S., L.S.A., of Golborne-road, Upper Westbourne-park, to Margaret Ellen, daughter of the late William Barratt, Esq.

DEATHS.

Arbuckle, William, M.D., of the Bombay Medical Service, Inspector-General of Hospitals, at Balmar, Kirkcudbright, on February 15, aged 67.

Bremner, Ella, youngest daughter of Bruce A. Bremner, M.D., at Streatham House, Canaan-lane, Edinburgh, suddenly, on February 12.

Buck, Wyatt Nevill, son of A. H. Buck, M.R.C.S., L.R.C.P., at 107, Camden-road, N.W., on February 11, aged 9 months.

Duke, Bernard, M.R.C.S. Eng., second surviving son of Thomas Duke, Esq., of Wick Farm, Arundel, at 28, Cadogan-terrace, South Hackney, after five days' illness, of pneumonia, on February 11, aged 27.

Kilgour, Caroline Sarah, fourth surviving daughter of J. S. Kilgour, M.D., at Cheltenham, on February 9.

Sands, John Lee, M.D., L.R.C.S.I., L.M., on the passage to the Cape, invalided home from H.M.S. *Thetis*, on December 21, aged 39.

Shillingford, Catherine Anne, beloved wife of J. S. Shillingford, M.R.C.S. Eng., L.S.A., of 124, Hill-street, Peckham, and widow of C. J. Cowie, M.D., of Madras, suddenly, of heart disease, on February 7, in her 52nd year.

Wanklyn, Arthur, M.A., M.B. Cantab., M.C., at Leek, Staffordshire, on February 12, aged 31.

Watson, Elizabeth, widow of Daniel Watson, M.D., at Crouch-street, Colchester, on February 7, in her 79th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bristol General Hospital.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

Carlisle Dispensary.—Assistant House-Surgeon. Apply, stating age and qualification, to Mr. J. H. W. Davidson, Honorary Secretary, 8, Devonshire-street, Carlisle.

City of London Hospital for Diseases of the Chest, Victoria-park, E.—Assistant Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, on or before February 26.

General Hospital, Birmingham.—Resident Surgical Officer. Candidates must be M.R.C.S. Applications, with testimonials, to W. T. Grant, House-Governor, on or before February 28.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square, W.—Honorary Physician. Candidates must be M.R.C.P. Applications, with testimonials, to Mr. F. Bailey, Secretary, on or before March 15.

Lewes Dispensary and Infirmary.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. M. S. Blaker, Lewes, on or before February 19.

Lincoln Lunatic Hospital.—Resident Medical Superintendent. Candidates must be duly qualified in medicine and surgery. Applications, with testimonials, to the Governors of the Lincoln Lunatic Hospital, under cover to Mr. R. Hall, 38, Silver-street, Lincoln, on or before March 11.

Middlesex Hospital. — Ophthalmic Surgeon. Applications before February 24.

North London Consumption Hospital.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

Odd-Fellows' Dispensary, Hull.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

Royal Hospital for Diseases of the Chest, City-road.—Surgeon. Applications, with testimonials, to the Secretary, on or before Feb. 28.

Stamford and Rutland Infirmary.—House-Surgeon and Secretary. Candidates must be duly qualified and registered. Applications, with testimonials, to the Chairman of the Managing Committee, on or before February 29.

Tiverton Infirmary and Dispensary.—House-Surgeon and Dispenser. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Mr. T. B. Patterson, Tiverton.

University of Glasgow.—Additional Examiners in Medicine. Applications, with testimonials, to Dr. Anderson Kirkwood, on or before March 1. (For further particulars, see advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bolton Union.—Mr. J. Hall has resigned the Sharples District; area 2000; population 8000; salary £30 per annum.

Droitwich Union.—Mr. John Rogers has resigned the Claines District; area 10,349; population 8757; salary £93 15s. per annum.

Edmonton Union.—Mr. C. H. Carver has resigned the Enfield Highway District; salary £42 per annum.

Woodbridge Union.—Mr. P. H. E. Cross has resigned the Fifth District; area 10,808; population 3662; salary £62 10s. per annum. Also the Eighth District; area 9413; population 1465; salary £32 10s. per annum. Also the Workhouse; salary £32 10s. per annum.

APPOINTMENTS.

Birmingham Parish.—Joseph H. Kenny, L.R.C.P. Edin., L.R.C.S. Edin., L.A.H. Dub., to the Third District.

Birmingham Parish.—Cuthbert C. Fitzsimon, M.D. Queen's Univ. Ire., L.R.C.S. Ire., as Assistant Medical Officer at the Workhouse.

East Ashford Union.—David S. E. Bain, M.D., F.R.C.S. Edin., to the Fifth District.

Ellesmere Union.—James T. Gobat, L.R.C.P. Edin., M.R.C.S. Eng., to the Overton District.

Montgomery.—Henry Johnson, M.D., and Thos. P. Blunt, F.C.S., as Analysts for the County for one year.

Potterspury Union.—Thos. S. Maguire, L.K. & Q.C.P.I., L.R.C.S.I., to the First and Second Districts and the Workhouse. Richard H. Orpen, L.R.C.P. Edin., L.R.C.S. Edin., to the Third District.

Rothbury Union.—Wm. Sutherland, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Rothley District.

Ware Union.—Wm. B. Willans, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Fourth District.

PRESERVATION OF LEECHES.—Now leeches are comparatively so little employed it is of consequence to know how they may be best preserved. This may be effected by adding to every 100 grammes of water so small a quantity as four drops of a solution of one part of salicylic acid in 300 of water. In this weak solution leeches may be preserved in a state of healthy activity for months.—*Révue Méd.*, January 3.

CIVIC MUNIFICENCE.—The Cutlers' Company have recently voted the sum of ten guineas to each of the following medical charities, viz:—The Great Northern Hospital, St. Mary's Hospital, Brompton Consumption Hospital, Hospital for Children with Hip Disease, Metropolitan Free Hospital, London Hospital, East London Hospital for Children, St. Peter's Hospital, British Medical Benevolent Fund, St. Mary Magdalene Convalescent Hospital, City Truss Society, and Charing-cross Hospital.

A BELGIAN OCULIST FORCED ON FRANCE.—Dr. Bribosia, a member of the Belgian Academy of Medicine, and Chevalier of the Order of Leopold, at the end of 1871 sought permission from the French Government to be allowed to practise in France, especially as an oculist, in the Department of the Nord. M. Jules Simon, at that time Minister of Public Instruction, in whom the power of granting the authorisation, which is usually a matter of difficulty, is vested, consulted the Council of the Medical School of Lille upon the subject. This body replied that well-informed oculists existed already in sufficient numbers in the Department, and that the want of Dr. Bribosia's assistance was in nowise felt. The permission was nevertheless accorded, and the doctor traversed all the North of France, announcing beforehand to all the towns and villages, by means of profuse newspaper advertisements, the time of his arrival. Ten practitioners presented a memorial to the Academy of Medicine of Brussels, detailing these procedures, and pointing out their unprofessional character. The Academy declared this "ambulatory medicine" as derogatory to professional dignity, and that those who practised it could not continue to belong to the Academy. However, Dr. Bribosia continued his perambulations, and got himself named Director of the Ophthalmological Institute of Tournay, which has just been founded; and on this occasion one of the clerical newspapers declared that the doctor, who was as sincere a Christian as he was an able practitioner, had not only restored the sight to many blind, but had also cured, by his advice, many souls suffering from a blindness far more dangerous and intractable. The practitioners regarding him as a mere charlatan, demanded of the Minister of Public Instruction the withdrawal of the permission to practise. No reply was given to this request; but last December, Dr. Bribosia, to the amazement of his opponents, was nominated Chevalier of the Legion of Honour! —*Progrès Méd.*, February 5.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** We have sometimes heard it said that when medical men are for a time tired of, or oppressed by, patients whom they fail to cure, they send them to some German baths, or other far-away health-resort; and we always regarded the saying as witty, but false. A friend has, however, inquired whether this may not be the real origin of the effort being made to found a "Foreign Health-Resort Fund" in connexion with the Central Throat and Ear Hospital. Perhaps some one more intimately acquainted with that great institution can answer the question.

The Hooghly.—A correspondent of our contemporary the *Times*, writing from Calcutta on the 14th ult., observes:—"While the Prince of Wales was here, and for some days after he left, there was anchored in the port of Calcutta the largest fleet of men-of-war that has visited the Hooghly for some years. One matter connected with the visit of these ships is worthy of note. No man-of-war, I am told, has ever before lain for any time in the Hooghly without an outbreak of cholera on board. On this occasion, it is true, two or three cases, one of them ending fatally, occurred on board the *Serapis*, but the disease was rapidly checked, and it never showed itself on any of the frigates. For this happy result much credit is due to the energy and improved sanitary arrangements of the port authorities and of their medical officer."

Vigilance.—There was in March, 1764, a Parliamentary inquiry into the causes of the high price of provisions at that time.

Anon.—There are at the present time fifty pensioners receiving annuities of £21 each from the Royal Medical Benevolent College, and there are fifty foundation scholars.

Post-mortem Examinations.—The ancient Egyptians examined the bodies after death for the purpose of ascertaining the nature of the diseases of which they had died. (*Vide* Pliny, 19, 5: "In Ægypto, regibus corpora mortuorum ad scrutandos morbus insecautibus.") A people advanced in civilisation and the principles of medicine as they were, and who only permitted each physician to practise his own peculiar branch, were most likely to adopt this means of gaining knowledge and experience for the general good. The Egyptians, according to Pliny, claimed the honour of having invented the art of curing diseases.

Arctic.—Of the health and risk by climate of an Arctic expedition, Mr. Clement B. Markham, in an article, "An Arctic Expedition in 1874," remarks:—"Of all the seas visited by men-of-war the Arctic have proved the most healthy. Out of eight expeditions employed in the search for Sir John Franklin, including 1878 men, the percentage of deaths was only 1·7 per cent. The risk by climate and disease which is therefore run in a voyage to the Arctic seas is not greater than that which any of her Majesty's ships incurs while serving on any other naval station. As regards those catastrophes which involve the loss of all hands, one has occurred in the Arctic regions to a Government expedition during the last century."

Hippophagy.—According to a recent return, during the past year 6865 horses, asses, or mules were delivered from the horse-meat establishments in Paris for consumption.

Daunted.—It was Professor Huxley who remarked, "No mistake is so commonly made by clever people as that of assuming a cause to be bad because the arguments of its supporters are to a great extent nonsensical."

Mr. Denman.—The subject was discussed at a meeting of the Council of the College of Surgeons yesterday. Miss Jex-Blake is not, we are informed, the only candidate.

F.R.S., Birmingham.—The Copley Medal of the Royal Society was founded by Sir Godfrey Copley, Bart., F.R.S., in 1709, and the first recipient of it was John Belchier, surgeon to Guy's Hospital. The award was made on the nomination of Sir Hans Sloane, one of the trustees under the will, for his experiment to show the property of a diet of madder-root in dyeing the bones of living animals of a red colour.

Dens Sap.—We believe that candidates for the dental diploma of the Royal College of Surgeons will in future be required to pass the preliminary examination in general education required of candidates for membership, or an examination equivalent to it.

Old St. Bart.'s.—We agree with you up to a certain point. The cartoon is a singularly coarse, weak caricature, without a spark of true artistic recognition of character; while the letterpress shows an absence of good taste, feeling, and knowledge even more lamentable and surprising. But we do not agree in thinking that either of them calls for any serious notice: they are too poor and mean in conception and execution to deserve that.

COMMUNICATIONS have been received from—

Dr. SPARKS, Mentone; Mr. E. P. WESTON, London; OUR LIVERPOOL CORRESPONDENT; Dr. J. W. MOORE, Dublin; Dr. CAYLEY, London; Dr. GRIFFITH, London; Mr. MCCORMAC, London; Mr. BECKINGSALE, Newport; Dr. BERRIDGE, London; Dr. SMITH, Reigate; Dr. EDIS, London; Dr. WILLIAMS, London; Dr. W. BEVAN LEWIS, Wakefield; Mr. HENRY MORRIS, London; Dr. BRUCE, London; Mr. J. CHATTO, London; Mr. T. STONE, London; Mr. S. V. MERCIER, London.

BOOKS AND PAMPHLETS RECEIVED—

Richardson's Diseases of Modern Life—Buckle on Licensing Reform—Hoyle on Crime in England and Wales—Transactions of the Pathological Society of Philadelphia, vol. v.—Notes et Impressions d'un Voyage dans les Trois Royaumes, par le Dr. Guéneau de Mussy—Whitmore's Monthly Report of Health and Meteorology of the Parish of St. Marylebone—Annual Report of the Massachusetts Eye and Ear Infirmary—Concours sur le Repos du Dimanche au point de vue Hygiénique—Buckley's Short History of Natural Science—Hill's Health Report of the Borough of Birmingham—Roy on Burdwan Fever—Macnamara's Diseases of the Eye. third edition—Carroll on the Management of the Gouty Temperament—Transactions of the Medical Society of Columbia, vol. ii., No. 4—Les Grands Processes Morbides, par M. le Professeur J. J. Picot.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Gazzetta Medica della Calabrie—Medical Examiner—Picturesque Europe, part 1—Bolton Weekly Journal—Dublin Medical Journal—American Supplemeut to the Obstetrical Journal—New York Medical Journal.

APPOINTMENTS FOR THE WEEK.

February 19. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. W. Thiselton Dyer, "On the Vegetable Kingdom; the Boundaries and Connexions of its Larger Groups."

Society of Medical Officers of Health, 7½ p.m. Dr. George Wilson, "On Sanitary Work in Rural Districts."

21. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Walter Coulson, "On Lithotomy and Lithotrity." Mr. Gant, "On a Case of Lithotrity in a Female." Dr. de Havilland Hall, "Tumour springing from the Lumbar Vertebræ, simulating Enlargement of the Liver."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existiug Mammalia."

22. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. W. Roberts (of Manchester), "On the Estimation of Albumen in Urine by a New Method." Dr. Wickham Legg, "On the Urea and Chlorides in the Urine of Jaundice." Surgeon-Major Porter, "On Intermittent Hæmorrhage from Malarial Influence."

23. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Dr. Langdon Down, "On the Causes of Idiotcy."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

24. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

25. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Dyce Duckworth—A Patient with Morphœa. Dr. Moxon, "On Two Cases of Leukæmia—one simple, one with jaundice; neither with notable enlargement of spleen; both treated with phosphorus, and both dying by hæmorrhage." Dr. Duffin, "On a Case of Menière's Disease." Mr. Maunder, "On a Successful Case of Gastro-enterotomy (Artificial Anus in Small Intestine) in a Male aged 68."

Quekett Microscopical Club, 8 p.m. Mr. R. Packenham Williams, "On an Improved Freezing Microtome." Mr. Nath. E. Green, "On a New Stage Arrangement for the Examiuation of Objects by Reflected or Transmitted Light."

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Rev. S. J. Perry, "On the Transit of Venus."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 12, 1876.

BIRTHS.

Births of Boys, 1251; Girls, 1195; Total, 2446.
Average of 10 corresponding years 1866-75, 2369·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	835	775	1610
Average of the ten years 1866-75	783·9	758·2	1542·1
Average corrected to increased population ...	...	...	1650
Deaths of people aged 80 and upwards ...	...	...	66

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	6	5	2	16	...	1	...	3
North	751729	...	7	12	2	24	...	3	...	3
Central ...	334369	...	5	6	2	6	...	2	1	1
East	639111	...	4	9	1	23	...	5	1	1
South	967692	...	15	16	2	31	1	2	2	2
Total	3254260	...	37	48	9	100	1	13	4	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·715 in.
Mean temperature	31·5°
Highest point of thermometer	39·0°
Lowest point of thermometer	23·0°
Mean dew-point temperature	27·5°
General direction of wind	N.E.
Whole amount of rain in the week...	0·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 12, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Feb. 12.	Deaths Registered during the week ending Feb. 12.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2446	1610	39·0	23·0	31·5	−0·28	0·03	0·08
Brighton	100632	42·7	61	42	32·0	24·4	32·4	0·22	0·01	0·03
Portsmouth ...	124867	27·8	100	64	...	...	...	...	...	...
Norwich	83430	11·2	53	30	37·5	25·0	32·2	0·11	0·31	0·79
Plymouth	72230	51·8	42	41	43·0	31·0	36·2	2·33	0·25	0·63
Bristol	199539	44·8	160	108	39·2	22·1	33·8	1·01	0·03	0·08
Wolverhampton ...	72549	21·4	58	33	38·1	20·4	31·6	−0·22	0·07	0·18
Birmingham ...	371839	44·3	308	173	39·2	21·5	32·2	0·11	0·14	0·36
Leicester	113581	35·5	85	48	39·5	20·5	32·0	0·00	0·10	0·25
Nottingham ...	93627	46·9	69	59	39·9	18·2	30·1	−1·06	0·16	0·41
Liverpool	521544	100·1	366	343	40·6	22·0	32·9	0·50	0·03	0·08
Manchester ...	357917	83·4	260	247	...	...	...	...	...	...
Salford	138425	26·8	137	72	41·4	14·4	30 7	−0·78	0·10	0·25
Oldham	88609	19·0	86	55	...	...	...	...	...	...
Bradford	173723	24·1	154	92	40·0	26·0	32·8	0·45	0·11	0·28
Leeds	291580	13·5	238	140	40·0	26·0	34·0	1·11	0·22	0·56
Sheffield	274914	14·0	220	140	41·0	24·0	33·0	0·56	0·18	0·46
Hull	136933	37·7	108	66	40·0	23·0	33·2	0·67	0·51	1·30
Sunderland ...	108343	32·8	98	57	45 0	28·0	35·5	1·95	0·42	1·07
Newcastle-on-Tyne	139929	26·1	119	89	41·0	22·0	32·4	0·22	0·89	2·26
Edinburgh	215146	51·3	121	92	44·0	21·5	33·9	1·06	...	...
Glasgow	545144	90·4	406	295	40·0	21·2	32·7	0·39	0·02	0·05
Dublin	314666	31·3	188	225	43·1	23·0	35·9	2·17	0·59	1·50
Total of 23 Towns in United Kingdm	8028595	37·7	5883	4121	44·0	14·4	33·0	0·56	0·21	0·53

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·72 in. The highest was 29·79 in. on Monday evening, and the lowest 29·65 in. at the beginning of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture IV.

MEDICO-LEGAL ASPECTS OF DEATH.

The inquiries opening up to the medical jurist may be referred to two categories—(1) questions affecting the civil and social rights of individuals; and (2) those arising in connexion with *injuries against their persons*. The inquiries originating in connexion with this latter class of questions on which we are now to enter include some of the most difficult and important points with which the expert has to deal, and demand a proportionate share of his attention, as on their correct settlement may hinge in a great measure, on not a few occasions, the life or liberty of a fellow-creature.

As all *injuries against the person*, either *immediately* or *remotely*, may, and do, often terminate fatally, in order to our being able to trace the connexion between the fatal event and the violence inflicted it is *necessary* to have an intimate acquaintance with the various *modes of sudden and less speedy death*, with the appearances they respectively leave on the body, and to be able readily to discriminate between these forms of death as brought about by natural causes or the reverse, as grounds for our decision in cases of violence.

Independently, however, of this *relative importance*, the subject of *death* is of interest to the medical jurist, as many questions in law occur which require on the part of the medical man an intimate acquaintanceship with its phenomena, and the succession of the changes immediately preceding or following, more or less remotely, the closing scenes of life. The subject, altogether, is one of growing importance as a separate study; for questions of a varied and comprehensive character are now being constantly mooted, in connexion more especially with cases of natural and of violent deaths, not previously adverted to, and which are inadequately, if at all, discussed in works on medical jurisprudence dating but a few years back, and for the solution of which we have mostly to look to later and especially foreign authors, by whom the subject has been handled with considerable fulness and accuracy.

Of the points we have indicated, those which have been laid down with most clearness and precision in our English works have been the subjects of sudden death and the modes of its occurrence. This has been owing to the circumstance chiefly of these topics being considered to belong both to physiology and pathology, thus falling in with the schemes of writers on each of these several departments of medical science. It is altogether different, however, with the consideration of the changes which take place in the body *after dissolution*—a subject which has in a great measure been left to the medical jurist, who has not neglected this important and difficult department of his special duties, though there may be still a good deal left for him to do before he can be said to have mastered all its details. In this direction there are *three sets of inquiries* which stand out most prominently from the rest. The first of these regards *the reality* as contradistinguished from *the appearance of death;* the second, the determination, in the body, of *the period of its decease*, where nothing is otherwise known of the date of that event; and the third, the ready *discrimination*, at different stages of its decay, betwixt the usual effects of disease or of violence, and the ordinary progress of its natural decomposition.

The importance of *the first* of these inquiries, it must be owned, has been somewhat exaggerated, especially in medico-legal writings dating a few years back; and, accordingly, it has had a disproportionate space devoted in these to its consideration. The settlement of *the reality of death* owes what interest it possesses for us to the fallacies which have long existed, and still cling to the popular mind, as to the frequency of *apparent* as contradistinguished from *real death*, and the consequent dread hence arising of *premature interment*, of which we have so many fabulous narratives largely received. The importance of the *second* and *third* of the inquiries we have mentioned has only been fully realised of late, and belongs almost exclusively to the domain of forensic medicine.

In following up the several lines of inquiry thus briefly indicated, I shall trace out *the natural order and sequence of events* as far as practicable, first considering *the immediate causes of death*, or, more correctly speaking, *the modes of its occurrence;* and afterwards *the succession of phenomena by which it is followed.*

The study of the subject of *death* in reference to *its immediate causes*, or *the modes in which it may be brought about* on different occasions, is the key to the series of problems the solution of which falls to the office of the medical jurist in almost every instance of sudden and violent death under unknown or suspicious circumstances. The fixing, with some precision, the period which may have elapsed in any particular instance since the death of the party, on the view of the body, may be a point of great importance both in *civil* and *criminal proceedings*. It may, for example, be of the utmost consequence to the surviving relatives of a person found dead that it should be ascertained, at least with tolerable certainty, at what time his death took place, as such information may be necessary to secure to them civil rights, or the succession to property of which otherwise they might be lawfully deprived.

The period of death becomes occasionally of importance in *criminal proceedings*, instances of which I shall have occasion to notice presently. But it is not in connexion with these applications to practice alone that the subject of the changes undergone by the body after death becomes of interest and importance to the medical jurist. Many of these changes are known to *simulate* the effects of violence, of poisons, or even of natural disease in the living body, and, without careful discrimination, might lead, as they have not unfrequently done, to dangerous and disgraceful mistakes. One of the most interesting practical illustrations of the truth of these remarks is furnished by the successful prosecution of the search for poisons in the body long after burial. In 1824 the successful investigations connected with a body thirty days buried first set Orfila about the inquiry up to what period poisons might be recovered in such cases. Since that period the fact of poisoning has been satisfactorily proved, at the different dates of interment, from a few weeks up to as many as eleven or even thirteen years.

It is now known, in fact, that, as a class, the *mineral poisons* remain in the dead body for an almost indefinite period; and that, although ultimately they enter into new combinations, chiefly from the development of ammonia, yet that the bases of these may still be recovered from the tissues long after death.

The progress of recent research has also shown that the greater number of the most commonly employed of the organic poisons, especially the alkaloids, persist in the tissues unchanged for long periods.—(Tardieu, "Empoist," page 139.)

In the case of *wounds* involving the bones, their traces may also be detected; but the question here arises, whether the wound has been inflicted during life or after death. The characteristics of a wound of *the soft parts*, made during life, are not so much the solution of continuity by the cutting instrument, as *the vital phenomena which have followed this division*. These usually are—greater or less hæmorrhage; inflammatory injection of the capillaries; redness and tumefaction of the surrounding parts, etc.,—effects which all speedily disappear under the influence of putrefaction, or which soon come to be confounded with the products of it. Nevertheless it may afford a *strong presumption* in favour of a charge of homicide, that such a solution of continuity is found in the dead body. Such investigations are never undertaken without a strong suspicion of violent death; and if traces of wounds are discovered corresponding exactly with the cause assigned, they go far to strengthen the *corpus delicti*. For instance,

It often happens that *a penetrating wound of the chest* will be distinguishable several months after death; while foreign bodies left in the wound, such as a bullet, etc., or *effusions of blood* accompanying such wounds, can also be recognised under like circumstances.

The same remark applies to *ruptures of the larger blood-vessels* in consequence of blows or falls; to *ruptures of the liver or spleen*, the *destruction of the eye*, *gunshot wounds*, *ruptures of muscles*, and some other injuries.

It is different, however, with injuries *not leading to a solution of continuity; contusions*, for example. Putrefaction not only gives rise to appearances which *imitate* these, but this process also in a short time obliterates all traces of them when actually existing.

In cases of *hanging*, and still more of *strangulation*, the disinterment of the body at late periods after death may discover the cord still around the neck.

In cases of *infanticide*, useful information may be obtained *long after death*. It has been remarked by us already, under Infanticide, that the lungs of new-born infants resist the progress of putrefaction longer than the other soft parts, and that it is sometimes possible to determine whether they had been inflated by air or otherwise months after death. Besides, putrefaction does not seriously hinder us in ascertaining the age of a child in such instances. In 1839 search was made for the remains of a child in this country, with the sole object of fixing its age when prematurely expelled, though this object was defeated by the person who had buried it being either unable or unwilling to point out the exact spot of sepulture. The infant had been buried two or three years, and the point sought to be determined was whether it was a *five- or a seven-months* child.

The *examination of the body of the mother* at some time after burial may also be useful in cases of *abortion*, where death has immediately followed *delivery*. If, for example, a woman has perished from inflammation of the uterus, or from acute metro-peritonitis, in consequence of the not unusual guilty practices of midwives or others who bring on abortion or premature labour, there would be little difficulty in proving that the walls of the uterus had been pierced by the improper use of the instruments which they frequently employ for the purpose, where such puncture has been made.

In the summer of 1841, another medical man and I were directed to attend the disinterment and to examine the body of a woman who was suspected to have met with foul play in this city (Aberdeen). She had at the time been seven months buried, and if nothing else could have been learned, it would have been an object to have discovered whether she had been delivered, or otherwise, before her death. The investigation, however, was futile in this instance, from the grave-digger having been unable to find the body after several days' search.

Even in those instances in which the body has been already reduced to the state of *a mere skeleton*, it is sometimes an object—as we have seen under Age, Sex, and Personal Identity—to ascertain the sex to which the individual may have belonged, the height of the individual, etc. But, in rare cases, information less to have been expected has been elicited by such investigations; as in the case of Hubert and Bastien, tried at Paris in 1833 for the murder of Widow Houet. The assassins had interred the body *eleven years* previous to the discovery and trial. Though entirely reduced to the state of a skeleton, the third, fourth, fifth, and sixth cervical vertebræ were found held together by a black matter, formed at the expense of the soft parts of the neck; and the whole was still encircled by several turns of the cord with which the woman had been strangled. Not only was the commission of the crime thus proved, but from the length and colour of the hair, the state of the teeth, the conformation and length of the bones, and from the discovery of a ring on one of the fingers, no doubt was left of the identity.

Enough, we presume, has thus been said to convince you that the series of inquiries relating to the subject of death and its consequents, as regards the body, both demands and justifies a somewhat extended notice in such a course as this. Without further preface, then, I begin its formal consideration with—

1st. The so-called *immediate causes of death*, or, as I prefer to say, the *modes of its occurrence*.

It is now pretty generally agreed on—amongst British pathologists, at least—that, however numerous and diversified may be the abnormal states of the system, and however diverse their modes of operation in leading to the fatal issue, their ultimate effects are all referable to a very limited number of causes, comprising, as these do, the whole of the modes in which life is known to terminate. It is true that we are as yet very far from being able so accurately to trace *causes* to their *effects* as to be able to tell with unerring certainty what share each of the diseased states which have been discriminated from the others may have in inducing the fatal termination in every individual case of loss of life from the effect of disease or accident. Still less are we yet in a position to distinguish accurately in every instance the *direct* from the *indirect* action of disease or accident upon those organs of the system, to the arrest, *primarily* or *secondarily*, of whose functions death is in all cases to be attributed. Much, however, has been done of late years to enable us to determine, with a surprising degree of accuracy, the precise mode in which the various noxious agents which are arrayed against the life of man are able ultimately to prevail to its extinction. The subject is one of vast and growing importance to the whole profession; and to none is an intimate knowledge of it more indispensable than to the medical jurist. On the familiarity which he has acquired with *the causes of death*, he must in a great measure rely, in pronouncing on the share which any alleged criminal interference may have had in leading to loss of life, or to discriminate betwixt the result of such interference and that of ordinary or natural causes. The topic, you will thus see, is a very wide one, ranging, as it does, over the whole field of *general pathology*. In discussing it, however, it will not be necessary for us to follow it beyond the bounds of *our own special science*. This is the more fortunate for us, as hitherto but little attention has been paid by pathologists to the state of some of the more important organs of the body *immediately preceding* the arrest of the vital functions, though we are not altogether without information on this obscure point. Thus our continental brethren have directed attention to the occurrence of œdema of the lungs generally as the immediate precursor of death in certain diseases of the heart, and œdema of those portions of the lung which alone had remained in a condition to fulfil their ordinary functions, while the rest of these organs had been for some time too diseased to accomplish this. Again, it has been observed that where weakened power of the heart to propel the blood from the left heart has existed, to whatever disease attributed, inspection has shown that an accumulation of blood had taken place not only in the right heart, but in the pulmonary artery to its minuter branches—a state of matters which must have preceded the final stoppage of the arterial current.

Once more, and briefly—for on this point I cannot afford time to dwell,—I may be allowed to call your attention to the part which the so-called pulmonary apoplexy sometimes plays in elderly and feeble persons as an immediate precursor of death, to which my attention was called at the dead-house prior to 1866, in illustration of which twenty cases were published by me in the thirty-seventh volume of the *British and Foreign Medico-Chirurgical Review*. But to proceed.

The actions carried on in the living body in their ordinary relations, and the respective modes in which life is affected by the arrest of the leading functions essential to the continuance of life, are thus clearly and briefly brought before us by Dr. Symmonds ("Cyclop. of Anat.," vol. I., page 71).

"*Systemic* life," as contradistinguished from *molecular*—or, in other words, the conjoined organism as constituted by the harmonious play of the vital functions, as contrasted with the mere vegetative functions—"is constituted by those actions which maintain the material dependence of the several parts of the organic whole. Such are the functions which provide new matter for the blood (digestion and absorption), that which effects a chemical change in the blood (respiration), that which distributes it through the organs and tissues (circulation), that which removes from the blood effete matters (secretion and excretion), and that which is intimately connected with all these functions, though we are ignorant of the mode of its operation—*i.e.*, the function of innervation. The cessation of these actions, and the consequent solution of connexion between the various parts of the body, constitute systemic death."—("Cyclop. of Anat.," vol. i., page 794.)

Life, in short, cannot continue without the combined integrity of the nervous, circulatory, respiratory, and nutritive and digestive systems, all mutually dependent on each other, and alike indispensable to life. "The first three are immediately necessary to life, the last only remotely; so that a severe injury, or the suspension of the functions of any of the former, generally proves quickly fatal, or causes *sudden death*; while injury of the latter commonly proves more slowly fatal, and so causes what is termed *lingering death*."—(*Ib.*)

Each of the systems we have enumerated "may be either *directly* affected by an injury upon itself, or *indirectly* by an injury of some of the others. Thus, first, *the nervous system* may be either directly affected by an injury of the brain or other parts of the nervous system, or it may be affected indirectly by a severe injury of either of the other systems—as an injury of the heart, lungs, or bowels. Secondly, *the circulatory system* may be either directly affected by an injury of the heart or some of its vessels, causing hæmorrhage, or indirectly by lesion of some of the other systems—as by a deficient supply of nervous energy, either from increased or diminished pressure upon the brain, from poison taken into the system, injury of some part of the nutritive system, or a want of oxygenised blood by injury of the respiratory organs.

Thirdly, *the respiratory system* may be either directly affected by a wound of the chest, by effusion of blood or air into its cavity, or injury of the trachea, or indirectly by injury of the circulatory or nervous system. And, fourthly, *the nutritive* or *digestive system* may be affected either directly by a wound or blow upon some part of the chylopoietic viscera, or indirectly by injury of the nervous, circulatory, or respiratory systems." —(Watson "On Homicide," pages 14, 15.)

It is mostly after violent injuries of the circulatory, respiratory, or nervous systems that we usually expect to find the fatal event immediately or suddenly to succeed their reception, though even an injury of the digestive system may occasionally cause death in a few hours. In this case, however, the cause of death is usually to be traced to the indirect operation of the injury on the nervous, circulatory, or respiratory systems. Hence we may refer the occurrence of sudden death to the failure of the functions of one or other of these three.

When the injurious agent, whatever it may be, has exerted its noxious agency, either directly or indirectly, in *the central organ of the nervous system*, so as to lead to the arrest of its functions, death is said to have happened *by coma;* when its operation has been in the same way *upon the respiratory organs*, producing the same suspension of the changes effected by them on the blood, death is stated to take place *by asphyxia;* and again, when its action, direct or indirect, is on *the central organ of the circulation*, followed immediately, or after some time, by cessation of its functions, the death is said to occur *by syncope.*

(*To be continued.*)

LECTURES ON INJURIES TO THE HEAD.

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Lecture VII.

ON HEMIPLEGIA AS A SYMPTOM OF CONTUSION.

In our last lecture we discussed in some detail the consequences of concussion, and of its complication with contusion and other injuries to the brain-mass, and I promised to produce some facts. The first assertion which I now propose to illustrate is the occurrence of hemiplegia as a consequence of contusion of the middle or sphenoidal lobe.

On May 16, 1872, we admitted a man, aged sixty-one, named William P. He had fallen a height of twenty feet, and was brought to the hospital immediately afterwards, insensible, and clearly about to die. The following symptoms were observed:—

Coma with stertorous breathing.
Hemiplegia of the left limbs.
A bruise on the right side of the scalp.
Ecchymosis of the right eyelids and conjunctiva, with proptosis (probably due to blood in the orbit).
Bleeding from the right nostril and right ear.
Right pupil dilated and fixed, whilst the left was slightly contracted.

He died about four hours after his admission, and at the autopsy we found fracture of the right parietal, temporal, and frontal bones, two or three ounces of blood in the arachnoid sac, with severe contusion of the sphenoidal lobe. In addition to the injuries to the skull and brain, he had several broken ribs, a fracture of the sternum (without displacement), and a small laceration of the muscular substance of the right ventricle (incomplete). It is probable that the last-named lesion may have increased the collapse from which he sank, but there was still quite enough in his head to account for the event. I quote the case now, in order to illustrate the occurrence of hemiplegia on the side opposite to a contusion of the sphenoidal lobe. Probably it was helped by the extravasated blood, but the quantity was not sufficient to have caused it alone. If you ask me—Of what did the man really die? I would reply—Of severe concussion, helped by contusion of the brain. The fracture of the skull and the contusion itself were proofs of how violent had been the shake of the brain. They would not in themselves have caused such early death.

My next case I must give more in detail. I will narrate the facts revealed at the post-mortem before stating the symptoms, for it is sometimes convenient to trace a case backwards. One Saturday we had in the post-mortem room the body of a young man who had died after an injury to his head. The external injury was very slight, and consisted in a contusion of the scalp over the posterior part of his left parietal bone. On opening the head we found in the arachnoid cavity of the right side a considerable quantity of blood, spread out in a thin layer over the hemisphere, and looking like so much black-currant jelly. We found, also, that the apex of the anterior lobe was contused and ecchymosed, and that the front of the middle lobe showed similar injury to a yet greater extent. This middle, or "sphenoidal," lobe was indeed on its surface broken into pulp, and the signs of softening and ecchymosis extended some little distance into its substance. It was from this part that the blood found in the arachnoid cavity had proceeded. A quantity of clot hung about the broken cerebral substance, but the entire amount of blood here and in the arachnoid was by no means large—not sufficient to alter the form of the hemisphere, nor to produce any appreciable compression; probably it did not altogether amount to more than an ounce. There was a slight superficial contusion of the right lobe of the cerebellum, but with scarcely any ecchymosis. There was not the least evidence of inflammation of the membranes, and the brain-substance, with the exception of the contusions mentioned, appeared quite healthy. Having removed the dura mater, we discovered with some trouble a fissure-fracture passing downwards from below the left parietal eminence through the left side of the occipital bone, and across the middle line above the foramen magnum. This fracture was not attended with the slightest displacement, and, excepting in that it supplied an item of evidence as to the severity of the violence, and as to the part to which it had been applied, it was probably of no sort of consequence. Had the lad lived it would have given him no trouble.

Thus, then, to recapitulate our discoveries, we may say that the chief one was a smash of the right sphenoidal lobe, due in all probability to violence received on the opposite part of his skull—an inference which was supported by the presence of a slight contusion on the left parietal eminence, and a fissure-fracture beneath it.

We will next ask how these injuries had brought about the lad's death, and what symptoms had attended them? He had died at five o'clock on the previous afternoon, and had been quite conscious up to the last, talking to his mother and to the nurses, alluding to events in his past life, and expressing much concern in the anticipation of death. His breathing was somewhat difficult, and twice during the twelve hours before his death he had alarmed those near him by becoming perfectly black in the face; the second of these attacks was only an hour before his death. The retention of consciousness in a case of death from injury to the brain is very unusual; insensibility being a condition common to most lesions which are likely to end fatally. He died, as I have told you, at five o'clock on a Friday afternoon. I had seen him three hours previously, and we had all visited him together at two o'clock on the Thursday. He had been admitted on the previous Tuesday night. His accident had consisted in a fall, when drunk, headforemost from a van; and when brought into the hospital his symptoms of concussion were masked by those of intoxication. He vomited, but had no bleeding from any part. On the Wednesday he had recovered to a large extent, was quite conscious, got out of bed to make water, and could stand. During the Wednesday night he relapsed, became unconscious, and passed his urine in the bed. When the class visited him on Thursday we found him unconscious; he resisted when irritated, and we made out for certain that his left portio dura was partly paralysed, and that sensation in the left half of the face was defective. The same statement applies to his left upper extremity, and perhaps in less degree to the lower one also. Thus we had an incomplete left hemiplegia, involving both motion and sensation, affecting the face more than the arm, and the arm more than the leg. This observation was confirmed on the following day. His insensibility varied, and, as we have already said, on the Friday (the day of his death) he had regained consciousness. The sphincter of his urethra, or rather, probably, one half of it, remained paralysed. He usually lay with his mouth open, gums and teeth covered with dry mucus, the face expressive of discomfort; if on his side, his knees would be drawn up almost to his chin. His pulse was always slow—never more than 70,—and his temperature never rose higher than 101·8°. Whenever conscious he always complained of headache, and throughout he said he should die. He complained that our examinations always made his head ache. His pupils were of natural size, and, although sluggish, always acted somewhat. His respiration was throughout peculiar: the peculiarity consisting in the

sudden, thud-like manner in which expiration was accomplished; and this increased as he got worse, until it was almost like the diaphragmatic respiration of fractured spine.

I think I have now told you most of the facts which we noticed during his life. We had to try our powers of diagnosis in reference to three questions—(1) Were his relapso on Thursday and his left hemiplegic symptoms due to pressure? (2) Were they the result of an inflammation which had supervened? or, (3) Were they due to laceration of the brain? I inclined to the second of these hypotheses, relying, as the post-mortem proved, too much upon the fact that the hemiplegia was not noticed in the first instance, as might have been expected if it were due to laceration. I put aside the idea of compressiou by effused blood, because I believe it is very unusual for such compression to cause persistent partial hemiplegia, aud especially so if the pupils remain symmetrical. Two symptoms opposed the hypothesis of inflammation—the slowness of his pulse, and the absence of high temperature,—but I did not thiuk either of them conclusive; and after all, although it is quite certain that he had no inflammatiou of the membranes, it remains possible that his increased illness was due to inflammatory softening of the brain itself uear to the bruised part. Without fear of error, because quite in unison with many other observations, we may learn this lesson from his case—*that severe contusion of one sphenoidal lobe will produce partial hemiplegia of both motion and sensation in the whole of the opposite half of head, trunk, and limbs.* This form of hemiplegia is usually present from the first. In cases which will recover it steadily diminishes; but in those about to end in death it almost always increases; its iucrease being due, doubtless, to infiltration and softening of the brain-substance adjacent to the contusion. I have known patients, iu whom the diagnosis of hemiplegia from contused sphenoidal lobe had been giveu with great confidence, have the symptom persist for a month or more, and yet in the end get quite well.

At the time that Mr. Grubb was my house-surgeon, some ten or twelve years ago, an interesting example of this occurred. A lad of about fifteen was admitted after a severe fall. He had long-continued concussion-stupor, and when he recovered from it we found his right limbs (chiefly his arm) partially paralysed; the right side of his face also suffered. No alarming symptoms occurred, and very slowly during many weeks the paralytic symptoms abated. I think he was a month at least before he left his bed, and it was about three before he left the hospital. During the greater part of this time he could not speak, and appeared quite childish. After a while Mr. Grubb taught him to sing a little, and to use some words, and when he left the hospital there seemed every reason to expect that in time his recovery would be complete. All his symptoms pointed to severe contusion of his left sphenoidal lobe and adjacent parts.

Not long after this last case, I had under observation, within a short period, two cases which resembled each other very closely. They both illustrated the point we are discussing—the symptoms which follow contusion of the sphenoidal lobe. I will give you their main facts, without troubliug you with details.

In each the man lived about four days after the injury, and presented throughout a state of imperfect coma, with paralysis of left limbs, portio dura, and fifth nerve. In neither had there been any external hæmorrhage. One had strongly contracted pupils, which the other had not; and this latter had convulsions, which the former had not.

The lesions found after death were very similar. In both there was fracture of the vault and base, without injury to dura mater or extravasation of any material quantity of blood betweeu it and the bone. In both, the under surface of the anterior and middle lobes of the right hemisphere was most severely contused. In the man whose pupils were contracted there was a blood-clot in the right thalamus opticus. In the man who had convulsions, nothing special was found to explaiu them.

With regard to the paralysis of the left portio dura in both, let us note that in neither was there the least damage to the pous or medulla oblongata. In neither was the temporal bone injured. In one the paralysed nerve was proved to be yet capable of exciting spasm. In both we must refer the paralysis to the contusion and concussion of the opposite cerebral hemisphere.

From these and similar cases we may come to the conclusions—

That contusion of the anterior and middle lobes of one hemisphere, chiefly evidenced at the base, may produce hemiplegia (limbs, portio dura, and fifth nerve).

That the eyes are not affected, or but little, the pupils being nearly of equal size, and no squint being present.

That the drawing of the face to one side is rarely very marked in this form of hemiplegia, probably because the less injured side is so much damaged by concussiou as to be incapable of vigorous action.

That in this hemiplegia the entire portio dura is involved, and the symptom of inability to close the eye is always most positive, though in many it may be incomplete.

ORIGINAL COMMUNICATIONS.

CONTRIBUTION TO ANTISEPTIC SURGERY.

BEING NOTES OF CASES TREATED IN THE GLASGOW ROYAL INFIRMARY

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[Reported by Mr. John Kendall, Surgeon and Clinical Assistant.]

(*Concluded from page* 166.)

K.—Cases of Excision of Elbow—Recovery.

Case 1.—B. B., aged thirteen, was admitted on February 15 with strumous disease of the right elbow-joint of several years' duration. On February 20 the joint was excised, and the boy was dismissed well on April 20. In this case there was considerable discharge of pus from the wound, and the healing process was slow; ultimately, however, cicatrisation was completed, and there is every prospect that the boy will have a useful arm.

Case 2.—Charles R., aged seventeen, a farm servant with strumous disease of the left elbow-joint, and a sinus leading down to the external condyle. The disease had existed for about three years. Ou May 27 the joint was excised, and on July 6 the patient was dismissed with the wound not only whole, but there was considerable motion at the seat of excision.

Case 3.—J. McK., aged four, admitted October 5, with extensive strumous disease of elbow-joint of two years' duration. Shortly after admission, excision was performed, and in six weeks union was complete. There had been very little suppuration, aud no constitutional disturbance.

Regarding these excisions of the elbow, it may be remarked that the line of incision through the soft parts which was adopted was the single straight one, and not the H-shaped one recommended in many of the older text-books. Excision at the elbow by the single straight incision has been the only method adopted at the Royal Infirmary since I began to study medicine, nearly a quarter of a century ago. It has, therefore, been a little amusing to find some English surgeons taking credit to themselves for having recommended to the profession a few years ago the longitudinal incision. The benefits derived by the avoidance of cutting across the tendon of the triceps have long been known here, and duly appreciated.

It will be observed, from the preceding list of cases submitted to operation, that there have been five deaths from pyæmia. Of these, three took place in Ward 15, and two in Ward 23. In these wards during the last winter, when the cold was more than usually intense, its effects were very much felt, and several cases of erysipelas presented themselves in these wards, owing their origin apparently to the inclemency of the season. When the cold was most intense, and when not only erysipelas but pyæmia was present in these wards, the temperature was as low as 42°. The pyæmia, however, cannot be said to have had, in all the instances, its origin in the low temperature of the ward; for, during the summer months, when the weather was fine and genial, one of the cases of compound fracture about to be described terminated fatally from that disease. We have, therefore, to look to other conditions than simple lowness of temperature for an explanation of the presence of pyæmia and erysipelas in these wards, in spite of our utmost care and attention in carrying out antiseptic treatmeut. It is to be hoped that the explanation is to be sought in ourselves, for in that case there is a probability that, by increased care and watchfulness in carrying out the minute details of the treatment, better results may be obtained in the future, and that pyæmia may become in these wards a thing of the past.

In the meantime, however, while our personal attention to the patients is greatly increased, and much more time devoted to the dressings than before, we have had our male accident ward removed from 23 to 24, and we hope soon to have the wards heated by hot-water pipes or otherwise; and if, in addition, we had the wards for erysipelas, pyæmia, and burns, which are in painful proximity to us, removed to some distant part of the Infirmary, away from the surgical wards altogether, there would be a greater likelihood of more satisfactory results being obtained than at present.

If, by means of the antiseptic method of treating wounds, pyæmia be banished from Ward 23, that fact will be one of the most striking proofs which can be adduced in favour of Mr. Lister's method, for it cannot be denied that that ward has had for many years a bad reputation for pyæmia; and it is a very curious fact that when that ward was first opened, the first two cases of amputation treated there died of pyæmia.

In all the operations referred to in this paper, Esmarch's elastic band has been employed, and for twelve months the ordinary tourniquet has not been in one instance used. The experience of this mode of controlling bleeding during the operative procedure has been on the whole most satisfactory. There has not been observed any special tendency to sloughing of the edges of the flaps, and when precautions were taken to secure that all vessels likely to bleed were ligatured before the flaps were finally adjusted, there was no danger of secondary hæmorrhage.

As already remarked, catgut ligatures rendered antiseptic have been employed in all the cases operated upon to prevent bleeding from the vessels divided in the stump; and only in one instance, that of W., whose arteries were atheromatous and brittle, was there any necessity, on account of hæmorrhage, to undo the dressings, to reopen the flaps, and search for and secure the bleeding point. Whether the catgut ligature divides the internal coat or simply compresses the artery and closes its channel, our personal observation does not enable us to speak; but we know this, however, that in applying a ligature to the divided popliteal or brachial artery, or any of the vessels in the leg or forearm, there is as much force employed in tightening the knots as if the ordinary silken ligature was in use, and in no case, except in the one already referred to, has there been any slipping of the knot, melting of the ligature, or secondary bleeding.

L.—Compound Fractures in Limbs.

Case 1.—*Compound Fracture of the Leg—Successful.*

W. M., aged eighteen, labourer, was admitted into Ward 24 on May 25, suffering from severe injuries to his right leg, the result of a crush between the buffers of two railway-waggons. On examination the patient was found to have both bones of his right leg very much comminuted, and that part of the leg which had been squeezed by the buffers was literally flattened before and behind. A wound about the size of a half-crown piece was situated over the middle third of the leg in front. Its edges were torn, and the parts round were much bruised and discoloured. There was no protrusion of bone through the wound, nor was there much bleeding. The patient did not appear to be suffering much from shock—his pulse was firm and strong, and his extremities are tolerably warm. On examining the wound the bones were found to be broken up into many pieces—some of the fragments being displaced, but all, seemingly, attached more or less closely to the periosteum, and none lying loose in the wound. The soft tissues were very much injured, and the finger passed readily beneath undermined skin and muscle. Although there had been little bleeding from the wound, it was found that there had been extensive extravasation of blood among the muscles, and from the knee to the ankle behind there was swelling and bagginess. The case was one causing considerable anxiety, and there was some doubt regarding the proper procedure to adopt. The comminuted state of the bones; the undermining of the skin and laceration of the muscles; the great amount of extravasated blood, and the possibility that some of the larger vessels had been torn;—these points being taken into consideration, along with the flattened condition of the limb and the nature of the force by which the injuries had been inflicted, it was thought that amputation at the knee might be the right practice to follow. It was, however, decided that an attempt should be made to save the limb by treating it antiseptically. Accordingly, by careful manipulation conducted under the spray, and with the fingers from time to time dipped into the carbolic solution, the broken fragments of bone were restored, as far as possible, to their proper position. The wound was then thoroughly syringed out with 1 to 20 solution of carbolic acid, and a piece of protective was laid on the wound, and over it the ordinary gauze dressing. The limb was then put up in lateral splints and Scultetus, and opium was administered at bedtime. May 26: Wound again syringed out, and the dressings renewed. After this it was dressed every second day throughout, while the Scultetus bandage and pads were changed at every second dressing. During each dressing a full spray of carbolic solution was kept over the wound, and the greatest care was taken in conducting the necessary manipulations to prevent the access of living organisms. 28th: Patient's general health unimpaired; no constitutional disturbance; wound dressed as before; about a thimbleful of a semi-transparent albuminous fluid pressed out, containing whitish flakes; edges of wound healthy, and bones in proper position. June 1: Discharge from the wound same in character and amount; no pus; a blush of redness is to-day seen extending from the wound down to the foot, unaccompanied by any marked constitutional symptoms, and evidently due to the tension of the superficial structures over a displaced fragment which can be felt somewhat prominent in front; heel raised to relieve the pressure on the soft parts, and to bring the fragments into better position. 3rd: Inflammatory redness gone. 5th: Wound healthy in appearance, the small quantity of discharge present being perfectly sweet. 11th: Wound now about the size of a shilling; discharge from it less in quantity; fragments remaining in position. 29th: The opening now very small; limb firmer, the bones evidently beginning to unite. July 10: Leg now quite firm and strong; very little provisional callus present; wound still open, but superficial. 24th: Splints removed from leg altogether; wound nearly whole. 30th: Wound quite closed; leg comparatively straight, but a little concave in front; starch bandage applied to it. August 15: Patient dismissed well after twelve weeks' residence in the Hospital.

This may be looked upon as a case in every way illustrative of the advantages afforded by antiseptics in the treatment of compound fractures; and its superiority over other methods was to be seen in—first, the mildness of the local inflammation and the entire absence of suppurative action; hence also the absence of constitutional disturbance and of all forms of secondary disease. Secondly, in the comparatively short time (two months) which the bones took to unite, and in the absence of any exfoliation. Thirdly, in the small amount of provisional callus thrown out, thus rendering the limb fit for use at an earlier period than it would otherwise have been. And, lastly, in the restoration to usefulness of a limb which before the days of antiseptics would certainly have been condemned.

Case 2.—*Compound Fracture of Bones of Forearm—Successful.*

J. McM., aged thirty-five, calico-printer, was admitted on October 7 into Ward 24. He had that morning had his left arm caught in the printing machine and severely injured. There was a compound comminuted fracture of the radius and ulna. The wrist-joint was opened, and several of the flexor tendons were torn and hanging from the wound on the anterior surface of the forearm. There was also a large wound on the posterior surface of the forearm, and one several inches long corresponding with the outer border of the radius. There had been a considerable amount of bleeding. The patient was taken upstairs to the operating theatre to have the mangled limb removed by amputation; but while there, on account of the sound and uninjured state of the hand, it was resolved to make an attempt to save the limb. Accordingly, under the spray, the tendons hanging out of the wound were removed, and thereafter 1 to 20 solution was carefully and thoroughly brought in contact with the injured tissues, and the limb covered by antiseptic gauze. Ordinary lateral splints were employed to assist in keeping the broken bones in position. From time to time the fracture was dressed, and it was noted that throughout the entire treatment the discharges kept almost perfectly sweet. There was scarcely any suppuration, and no constitutional disturbance whatever. In eight weeks the patient was dismissed well, with good motion in the wrist-joint, and with the prospect of having a fairly useful hand.

Case 3.—*Compound Comminuted Fracture of both Bones of Leg.*

J. C., aged eighteen, a labourer, admitted October 2 into Ward 24. The wheel of a railway-waggon had passed over right leg in its lower third, fracturing both bones and lacerating the soft parts. In the course of a few days the injured soft parts sloughed, and on the separation of the dead tissue about

two inches and a half of fibula was seen to be split and comminuted, while upon the inner surface of the leg the broken tibia was lying exposed to the extent of about an inch and a half. On account of the position of the wounds, there was some difficulty in dressing them under the spray, and in consequence the discharges were very far from sweet. The pus was not only very copious, but very offensive. There was considerable constitutional disturbance, and for a week there was an erysipelatous blush all over the limb as high up as the knee. By-and-by the discharges became sweet, and at this date (December 27) union of the broken bones has taken place, although the wounds are not yet quite whole. There has not been any exfoliation of bone.

Case 4.—*Compound Fracture of the Tibia—Death from Pyæmia.*

G. C., aged twenty-eight years, a labourer, was admitted on August 23, with extensive wound in upper part of the right tibia caused by the kick of a horse. Sutures had been inserted, and the wound was dressed antiseptically and in the usual way. On the eighth day, however, after admission the wound was observed to be in a sloughy condition, and there was a considerable quantity of putrid discharge. On the wound being carefully washed out, there was found a considerable portion of the tibia denuded of periosteum, and a fracture through the head of the tibia into the joint was suspected, although its existence was not actually known, as there was neither crepitus nor displacement. On the fourteenth day he had a rigor, followed by profuse sweatings and high fever, and on the nineteenth he died. On post-mortem examination there were found pus in the knee-joint, and abscesses in the liver and lungs; and in the head of the tibia there was an oblique fracture which presented no features of repair.

M.—Compound Fractures of the Skull, with Depression and without Compression—Recovery.

Case 1.—E. N., aged sixteen, mill-worker, was admitted into Ward 24, on January 28, with a wound over the left parietal prominence, about three inches long, which had been inflicted by a revolving wheel in the works. On carefully sponging out the wound, there was a fracture observed running backwards nearly the whole length of the wound, and one edge of the fracture, to the extent of about an inch, was visibly depressed. The bone, too, was denuded of periosteum to some extent on both sides of the line of fracture. Although it was stated that when the girl was removed from under the wheel she was quite conscious, yet on admission she was somewhat confused, and her pulse was quick, though her pupils were regular and her breathing natural. Her head was shaved, and the wound carefully washed out with 1 to 20 solution, and the edges were thereafter brought together by wire sutures, and the ordinary gauze dressing applied. In addition, directions were given to have the patient kept perfectly quiet, and the head as cool as the dressings would permit. On the following morning an observation was made to the effect that she had slept well during the night, and had taken some breakfast; that her pulse was quiet, and that all confusion in head had disappeared. The further history of the case may be shortly stated thus:—On March 12 she was dismissed well, with the wound perfectly cicatrised. Although treated with the utmost care, there was some suppuration in the wound, but there was no symptom whatever of cerebral mischief.

Case 2.—E. S., aged twelve, admitted February 20 into Ward 24. Her history may be shortly stated as follows:—While at work in the mill her clothes were caught by the shaft of a revolving machine, and it was reported that she was carried round four times, her head being dashed with some considerable force against the wall. Immediately after the accident she was unconscious, although she was quite sensible on admission. On examination there was found to be a ragged wound, irregular in shape, over the right parietal prominence, and at the bottom of the wound the bone was felt and seen to be fractured and depressed. There were no loose fragments, although the fracture was seen to be somewhat comminuted. The entire scalp all round was swollen and puffy, and the eyelids of both eyes were swollen and black. There was also a severe bruise of left knee and thigh. The head was shaved, and cold applied, in addition to washing out the wound with 1 to 20 solution, and applying the gauze. In this case, as in the former one, no bad symptoms appeared. The wound in the scalp healed very readily, and without much discharge, but, after cicatrisation was complete, several abscesses formed in different parts of the scalp, and these were opened and treated antiseptically. They took a long time, however, to heal up, and she was dismissed well on May 4.

Case 3.—J. W., aged ten years, was admitted on May 30. While amusing himself on the parapet of a bridge, he fell among stones from a height of about fourteen feet. When taken up he was unconscious, but he soon rallied, and when seen, a few hours after admission, he was found to be quite sensible. On examination, there were observed, over the left parietal eminence, two ragged and irregular-shaped wounds, each about two inches long. On removing from them a quantity of dirt and sand, a portion of bone, which a crown-piece would cover, was found to be quite stripped of periosteum, and the bone was seen to be fractured, the fracture being irregular in shape and about three inches and a half long. In the centre of the portion of bone denuded of periosteum there was a small piece the size of a shilling which was depressed to a slight extent on one side. The head having been shaved, and the wound cleansed out with warm water, and thereafter with 1 to 20 solution, the edges were brought into apposition by sutures, and the usual gauze dressings applied. The result of the treatment may be stated in one sentence. He was dismissed on June 24, no bad symptom whatever having intervened, and during the healing process there was only a slight discharge of pus.

Case 4.—J. G., aged thirty-nine, admitted on June 24, with a scalp wound three inches long, which extended backwards from the right frontal eminence. At the bottom of the wound the bone was seen, and felt to be fractured to the extent of about two inches, but there was little displacement or depression. Two ribs were fractured on the left side of chest, and there was general bruising of the lower limbs. These injuries had been caused by falling off a scaffold while at work. The head was shaved, and the wound washed and thoroughly cleansed by warm water and 1 to 20 solution, and the edges of the wound were thereafter brought together by wire sutures. On the twelfth day he was suffering from a hacking cough and pain in left side of chest corresponding with broken ribs; and on July 25 he was dismissed at his own request, the wound in the scalp having cicatrised without the slightest discharge of pus.

These cases are specially interesting, in so far as they illustrate the value of the antiseptic as well as the non-interference plan of treatment. In depressed fracture of the skull, accompanied by a wound in the scalp leading down to the fractured bone, the danger to the patient and risk to life are considerable, not only on account of the violence to which the parts may have been subjected, but of the inflammatory action which may ensue, and which may extend to the dura mater and brain, and thus prove fatal.

Sir A. Cooper very early pointed out the great difference that exists as to the danger of inflammation and suppuration of the membranes of the brain between those cases in which the fracture and depression are complicated with a wound in the scalp, and those in which the soft parts are uninjured—such mischief being more liable to occur in cases of the first kind than in those of the second; and on these grounds he recommends that where this complication exists we should not hesitate to use the trephine or the elevator to raise the depressed bone. Sir B. Brodie, referring to this opinion of Sir A. Cooper, had some doubts of its accuracy, but when he came to compare the cases in his own practice in which no suppuration ensued with those in which it had, he found a corroboration of Sir A. Cooper's views; and, he adds, the surgeon can follow no higher rule than this. If the depressed bone be exposed in consequence of a wound in the scalp, without any symptoms or with only trifling symptoms arising from it, let him apply the trephine and elevate the depressed bone. Coming down to our own times, we find the same views expressed by Professors Spence and Erichsen.

Mr. Prescott Hewett puts the matter thus: Supposing there be a wound leading down to the bone in a depressed fracture, without symptoms, what is to be done? Are we to operate or not? The rule is that we are to operate, and at once. Compound fractures with depression most frequently lead to intra-cranial suppuration, and we are to operate to prevent the impending mischief. In the cases recorded above, a different practice was pursued—namely, that of non-interference,—and for the following reasons:—(*a*) With one exception, the patients were young, not adults; (*b*) although the bone was somewhat depressed, there were no special comminution, no splinters, and

no evidence that the dura mater was already injured; (*c*) under careful antiseptic treatment it was expected that union of the divided scalp would readily take place, probably without much, if any, suppuration; and that the compound fracture would be soon converted into a simple one. The results of the treatment speak for themselves.

N.—Sanguineous Cyst in the Neck—Removal—Recovery.

W. C., aged eighteen, labourer, was admitted into Ward 15 on February 16, having a circumscribed swelling situated over and to the right of the upper part of the sternum, and extending over the right clavicle to the lower part of the neck. Its size might be compared to that of a closed fist. Its surface was slightly lobulated, and the skin over it was freely movable. Fluctuation could be distinctly felt in some parts, and especially over its inner aspect. Its margin was well defined, but no ring of induration could be felt at its base. It was painful on pressure. From the statement of the patient's mother, it appears that a small elevated lump had been there since childhood. It had, however, remained about the size of a walnut until about three months before admission, when, after some violent exertion on the part of the patient, it rapidly increased in size until it attained the above dimensions. From the lobulated appearance of the swelling, and its mobility, it was supposed that it might be a fatty tumour. It was pierced, however, with a medium-sized needle of the aspirator, and about two ounces of thin, dark-coloured blood were withdrawn, which soon coagulated. The cyst was completely emptied, and the swelling almost entirely disappeared, except a small knot or lump at the top of the sternum. In the course of two weeks it refilled, and became larger than before. On March 10 the patient was placed under chloroform, and the cyst was carefully dissected out entire. In doing this it was found closely adherent to the upper part of the sternum and the sternal end of the clavicle, as well as to the inner border of the sterno-mastoid muscle, under which it dipped. The wound which was left had its edges readily brought together, and was dressed under the spray. On April 2 the patient was dismissed well, the edges having united by first intention. On opening the cyst it was found to contain a quantity of dark fluid blood. The cyst-wall was very thick, and its interior presented a fasciculated structure which made it resemble very closely the right auricle of the heart.

Mr. Paget describes a cyst of a similar character, in the removal of which from the angle of the scapula of a lad fifteen years old he assisted. The probability is that this case was an instance of the production of a sanguineous cyst by transformation from a nævus, and not simply a serous cyst into which bleeding had taken place. When bleeding does take place into a cyst originally serous, if the quantity of blood is considerable, it often coagulates, as we find it in an hæmatocele; while, as was early pointed out by Mr. Paget, in a cyst originally sanguineous the fluid does not coagulate, but remains fluid till it is withdrawn.

O.—Artificial Occlusion of the Vagina for the Cure of Prolapsus Uteri.

Margaret F., aged forty-eight years, was admitted February 20, 1875, suffering from prolapsus uteri of fifteen years' standing, and attended with the usual symptoms—viz., a sense of fulness in the pelvis, pain in the back, with some irritation of the bladder and rectum. The uterus was resting on the upper floor of the perineum, and protruding somewhat through the vulvæ. It could be easily replaced on the patient assuming a recumbent position. Various kinds of pessaries had been employed, but the patient was unable to wear any for a length of time. Other means of support had also been had recourse to, but without avail. An operation was therefore proposed, to relieve the patient of the discomfort with which such a malady is necessarily attended. Its object was to narrow the vaginal orifice by uniting the opposite portions of its walls, so as to bring forward the perineum, as it were, to act as a natural cushion to the prolapsed parts. A strip of mucous membrane an inch and a half wide was dissected off from half an inch below the meatus on one side to a corresponding point on the other. The two raw surfaces were now brought into close apposition, and kept there by means of quilled sutures. The catheter was passed frequently, and the bowels were kept confined by the administration of opium. The parts speedily united, and the patient was dismissed well on April 30, 1875.

CASES OF STONE IN THE BLADDER.

By J. HANCOCKE WATHEN, L.R.C.P.

Case 1.—*Two Calculi, mixed Oxalates and Urates—Lithotrity—Cured.*

J. J., a fine, well-made young sailor, aged seventeen, consulted me on December 31, 1870, for irritation of bladder accompanied by bloody urine. Patient stated that in the early part of the year he had been attacked with yellow fever out in Demerara, and that about this time he had first noticed bloody urine. I attempted to sound his bladder, but there was so much irritation of the urethra that he would not allow the sound to be passed into the bladder. With the object of allaying the irritability, tincture of belladonna in ten-minim doses was prescribed thrice daily, and the patient requested to present himself at the end of a week. This treatment, however, had such an effect on the irritability of the bladder, that the patient concluded his troubles were at an end, and refused to call again, although urged to do so by his mother.

I lost sight of the case until the following summer, when he again presented himself with all his old symptoms, which had returned as soon as he commenced moving about. In this state he had gone another voyage of six months' duration, suffering great agony, especially while going aloft. He was put on the tincture of belladonna, and perfect rest enjoined for a week.

On July 10, 1871, I sounded, and found two calculi. From the history of the case these were considered to be uric acid, and the note elicited was clear and sharp. The mother stated that the patient had suffered from irritation of the bladder, with occasional bloody urine, ever since he was about four years old, but that it was only during last year that these symptoms became severe and persistent. She had noticed occasionally a red-brick deposit in the urine. A few days afterwards, a lithotrite was introduced, and two calculi measured—one being an inch and three-eighths in diameter, and the other seven-eighths of an inch. This youth, who was now eighteen years old, had a most capacious urethra, admitting a full-sized lithotrite with ease. Finding, after two or three preliminary examinations, that he bore interference well, I determined to accede to his urgent request that the calculi be crushed.

On July 28, I accordingly commenced by lithotrising the smaller (seven-eighths of an inch) stone. This stone being first dealt with, the larger one was then attacked—the case ultimately taking twelve sittings. The *débris* consisted of mixed oxalates and urates, and weighed 260 grains. The bladder was not washed out, but allowed to expel the detritus naturally.

I wish to draw attention to the great relief obtained in this case from the administration of belladonna, which relief unfortunately postponed the active treatment nearly a year. The deposition of the oxalate of lime probably dated from the attack of yellow fever, which deposition, by altering the surface of the stone, would account for the increase in the severity of the symptoms. My father and his assistant Mr. F. A. Fisher were present at most of the sittings. I have frequently heard of this patient since he was under treatment, and he continues free from all bladder-troubles.

Case 2.—*Lithic Acid Calculus—Lithotrity—Cured.*

W. E., aged sixty, came under observation casually in April, 1874, during a visit I was making on a member of his family. Incidentally he mentioned that he himself was not very well, and, on my questioning him, detailed the usual symptoms of stone in the bladder, for which he was taking some herbs. I advised his having his bladder examined for the presence of stone which I suspected.

A few days afterwards he came in and was sounded. A stone was immediately detected, which gave a measurement of seven-eighths of an inch in diameter. Symptoms of stone had existed about one year.

Lithotrity was performed on May 2 and four subsequent sittings. During one of the sittings, while using the fenestrated-bladed lithotrite to crush a very hard fragment, the lining membrane of the bladder was unfortunately nipped; the accident was at once felt, and the mucous membrane set free as much as possible. On withdrawing the lithotrite, a small piece of membrane was detected between the blades. In spite of this accident the case progressed favourably, with the exception of a slightly increased quantity of blood in the urine for a

few days, and the patient was discharged cured in June. The *débris*, which chiefly consisted of fine powder, was of lithic acid, weighing fifty grains (saved). Staff-Surgeon Evans, R.N., Surgeon-Major Thomas, and my father were present during some of the sittings of this and the following case.

Case 3.—*Lithic Acid Calculi in a Female—Lithotrity, with slight Dilatation of Urethra—Recovery—Perfect Control over Bladder.*

E. P., a woman aged sixty-two years, came under treatment whilst the previous case was being operated on. She had suffered nearly three years from irritability of the bladder, with bloody urine, when she took any exercise. Could not retain her urine more than twenty minutes while walking about, and "of late could feel the stone fall to the mouth of the bladder," the flow of urine becoming arrested until she changed her position. On sounding the bladder, two calculi were detected, measuring an inch and one-eighth and five-eighths of an inch respectively.

It was determined to lithotrise these stones, and then remove at one sitting all the large fragments made with the fenestrated instrument through a dilated urethra. But finding that the two-bladed urethra dilator I had by me was a most inefficient instrument, and not strong enough to thoroughly dilate the urethra, combined with the great hardness of the calculi, I decided to complete the case gradually by lithotrity, leaving the fragments to pass naturally by the moderately dilated urethra.

At each sitting the bladder was first emptied, and then about four ounces of water injected, the fenestrated lithotrite introduced, and the stone crushed twice or thrice, when the water injected generally began to be expelled. This was taken as a signal to desist for the time. The consistence of the calculi was well demonstrated by the loudness of the note of fracture. The case was completed in four sittings. The *débris*, consisting of uric acid, weighed 216 grains. This patient continues well, and has complete conrol over her bladder.

The cases Nos. 2 and 3 came from the same parish—a sea-side one, with nothing peculiar to distinguish it geologically from most others in this district,—and in connexion with them it may be of interest to record the following. I should mention that the formation of the above parish is of the bastard granite character, a ridge of high rock running through the centre—the water not having any special degree of hardness.

Case 4.—*Lithic Acid Calculus in a Female—Gradual Dilatation —Removal—Recovery, with incomplete Retention of Urine.*

Mrs. I., aged forty-five years, came under treatment in December, 1857, for stone in the bladder. This case was under my father's care, who proceeded first to gradually dilate the urethra with Weiss's dilator, and afterwards removed the calculus per urethram with a forceps. The urethra was slightly snicked at the orifice. The calculus measured an inch and three-eighths by an inch and a quarter. The patient recovered, and had fair control over the bladder for two hours at a time.

I have managed to get possession of a calculus measuring two inches and a half by an inch and three-quarters, and weighing nearly three ounces, which was removed some years ago post-mortem from the bladder of an old man nearly eighty years of age, who was a resident in the same parish as the three preceding cases.

Fishguard.

City of London Hospital for Diseases of the Chest.—At the annual meeting of the Governors of the City of London Hospital for Diseases of the Chest (Victoria-park), which was held last week, it was reported that the receipts of the year amounted to £13,161 8s. 3d., which sum exceeded the expenditure by £727 4s. 5d. The receipts included £840 11s. 8d. from the Hospital Sunday Fund, and £134 4s. 10d. from the Hospital Saturday Fund.

Scarlet Fever in Melbourne.—A correspondent, writing from Melbourne on December 30 last, states:—"The death-rate from scarlet-fever is decreasing; but the epidemic still continues to appear in a malignant and intractable form, and has saddened Christmas for many of us. Our outdoor gatherings have not been so large as they usually are at this time of the year, and the dread of contagion may have had something to do with the falling off."

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

EFFECTS OF INJURY TO THE MEDIAN NERVE.

It is by no means uncommon to meet with a case of injury to some one particular nerve, either as the result of gunshot wounds, foil thrusts, or stabs. Perhaps the most frequently injured nerve is the median, for this reason: that it is, along much of its course, rather superficially situated, and because it, as well as the ulnar, is much exposed to violence near the wrist, and shares very prominently in the results of incised and lacerated wounds about this part.

There is something fascinating to the anatomical and surgical teacher in these injuries, for they afford opportunities of verifying clinically what is demonstrated in the dissecting-room, and taught dogmatically in the lecture-theatre—viz., the distribution of the nerves, and the nerve-supply of different structures.

Perhaps no nerve in the body is more universally or better remembered by medical students, after they exchange the schools for the wards, than the median. Its double head of origin; the companionship of, yet its own varying position to, the brachial artery; its passage between the heads of the pronator teres; its supply to the two radial lumbricales, and the muscles of the palm on the radial side of the long flexor of the thumb; and, finally, its distribution to the skin over three digits and a half,—are all points which, having been so constantly reiterated, have not failed to leave their impress. There is yet one other point in the anatomy of the median, which, though much more of a detail, is no less striking than the rest, but which is very seldom described or insisted on. Indeed, in one respect it is more striking and significant because it is a detail, for it illustrates a broad fact in the nerve-supply of muscles and skin, which may almost be called a law.

Schroeder Van der Kolk did enunciate the statement of the fact as a law; and the law in his own words is this—"Throughout the body the sensitive branches of a mixed nerve run to a part of the skin which is moved by the muscles receiving motor filaments from the same nerve-trunk, so that, the action of the muscle being known, we can according to this law, even *à priori*, define the distribution of the sensitive nerves in the skin."

Van der Kolk had detected this connexion between the peripheric distribution of the sensitive and of the motor nerves in 1847; but every old Guy's man knows, or ought to know, that years before this date Mr. Hilton had been in the habit of publicly teaching the same doctrine.

In what way, then, let us ask, does the distribution of the median, as shown by the clinical observation of cases of injury to this nerve, prove the law? The answer is not far to seek; and those who, like ourselves, saw the cases described below, could verify it without difficulty. We wish space would permit us to insert drawings of the two following cases; but the question can be easily answered by a careful perusal of the notes. The loss of sensation on the palmar aspect of the hand we need not describe. It is with reference to the dorsal surface we now wish to speak.

It will be seen that on the dorsal aspect sensation was normal over the whole of the hand and the whole of the little finger, as well as over the thumb and ring-finger as far as the middle of the last phalanx; but that over the last two phalanges of the index and middle fingers, as well as over a part of the last phalanx of the ring-finger and thumb, sensation was considerably diminished.

The partial loss of sensation about the dorsum of the thumb and ring-finger is explicable if it be remembered that the median, besides supplying the pulp of the fingers to which it is distributed, supplies also the parts about the matrix of the corresponding nails; but how is it that the skin on the extensor aspects of the second and third phalanges of the index and middle fingers has its sensation diminished? This is the fact in illustration of the law taught by Hilton and Van der Kolk. The median nerve supplies the two radial lumbricales, and the tendons of the lumbricales pass along the dorsum of the fingers and blend with the extensor apparatus;

therefore to the skin over the tendons of insertions of these two lumbrical muscles the same nerve is distributed.

That the sensation is here impaired, not lost, is also in support of the same law; for, as the extensor communis digitorum tendons also run ouwards to the last phalanx, we find the branches of the nerve to the extensors—the great radio-spiral—also in part distributed over the same portion of skin.

As other effects of injury to the nerve, it will be noticed in Case 2 that the skin supplied by the nerve was rough and scaly, varied much in temperature, and in one place suppurated. Such changes of nutrition are not uncommon, and in some cases gangrene of one or more of the fingers has resulted.

The recovery after these injuries is usually very slow, but in many cases pretty certain. The patients may for two or three years have impaired sensation and loss of power, but it may be safely conjectured that the ultimate recovery will be satisfactory, provided there is no loss of substance of the nerve, and that the cut ends do not become far separated from each other, as happened in the second of the two following cases.

In the two cases here narrated the patients were suffering in some other way besides from the effects of injury to the median. In the first case troublesome axillary abscesses, in the second case fistula in ano and phymosis, brought the men under treatment.

CASES UNDER MR. DURHAM.

Case 1.—*Paralysis over whole Distribution of Median Nerve from Wound of Wrist—Axillary Abscesses—Improved.*

James D., aged forty-three, wine cellarman, admitted March 1, 1875. Family history: Father and mother both died at extreme old age; they were always very healthy people. Has five brothers, all of whom enjoy good health. Patient has always been a most healthy man. About three months ago he cut his right wrist while shutting a window, for which he was treated at this hospital. On anterior surface of right wrist is a triangular cicatrix, which extends nearly across front of wrist. Movements of wrist tolerably free, and patient can flex and extend fingers, but not so well as before accident. Sensation over the distribution of the median nerve in the right hand is nearly lost: thus, on the palmar surface sensation is nearly absent on the thumb, index, and middle fingers and the corresponding portion of hand; on the radial side of the ring finger there is some diminution of sensation, while on the ulnar side of the same finger, over the whole of the little finger, and the portion of the palm of hand corresponding to these fingers, sensation is normal; on the dorsal aspect sensation is normal over the whole of the hand, and the whole of the little finger, over the thumb as far as the last phalanx, the index and middle fingers as far as the second phalanx, and the ring finger as far as the third; over the last phalanx of the thumb, the last two phalanges of the index and middle fingers, and the last phalanx of the ring finger, sensation is considerably diminished, but not entirely lost.

Patient, who looks a strong, healthy man, has an abscess in right axilla. It is about three or four inches in diameter, and is a good deal inflamed, especially on its lower side. A week before patient was admitted into the hospital, he discovered a lump under his arm, about the size of a walnut. It increased rapidly. He has no idea of the cause of it.

March 4.—Abscess opened, and discharged a good deal of matter. Drainage-tube put into opening. Dressed with carbolic oil and linseed poultices.

10th.—Wound in right axilla doing well. An abscess is forming in left axilla.

17th.—Abscess in left axilla opened by two incisions; not so much pus as in the right, which is healing well.

April 1.—Left hospital. Both arms have healed up well. Sensation is better in those parts which are supplied by median nerve.

Case 2.—*Old Injury to Median Nerve, with Loss of Sensation in Hand, slight Suppuration about Finger, and considerable Pain about Cicatrix—Fistula in Ano: Elastic Ligature—Phymosis: Circumcision.*

Jacob T., an engineer, was admitted on February 10, 1875. Patient's family history is good; his parents are healthy, as are also his brothers and sisters. He was a very healthy man until he was about twenty-one years of age, when he suffered with a severe cold, which lasted for some considerable time. Ever since he has been subject to bad coughs at intervals. He has always had very confined bowels. In November last he first perceived some slight pain about the bowel when having a motion. He took no notice of it.

Five weeks since, he discovered a small pimple behind the anus; an abscess followed, and broke, discharging a good deal of pus.

On admission, there is a small deep opening, about an inch or an inch and a quarter behind and on left of anus, which probably communicates with the rectum. Ordered tinct. ferri perchlor. ℥xv., magnes. sulph. ʒss., acid. nit. dil. ℥x. ex. mist. quiniæ ʒj.

February 19.—Chloroform in theatre. Speculum passed into rectum by Mr. Durham. The internal opening was seen about three-quarters of an inch above anal orifice. A blunt needle was passed through fistula, threaded with an elastic cord, and then withdrawn; the cord was afterwards twisted and tied with silk ligature, thus avoiding the knotting of cord. About an inch and a half of tissue was included.

20th.—Great pain during last night, preventing sleep.

22nd.—Pain has been less since night after operation.

24th.—Ligature came away this morning while having a motion. Subsequently the wound healed, though slowly. Circumcision was performed during his stay in hospital.

In addition to the rest of his troubles on admission, it was noticed that this patient had some deformity and loss of sensation of certain portions of the left hand. In the previous January he had cut his wrist badly with glass, and sustained an injury to the median nerve.

The following notes refer to the loss of sensation in his hand, and to an operation performed on the cicatrix above the wrist for the relief of pain produced by the bulbous end of the median nerve:—The parts of the hand where sense of feeling is wanting are very rough and scaly, and get very cold and very hot at times. Hand cannot be closed to grasp anything. Some suppuration under cuticle at end of middle finger. The seats of diminished sensation are identically the same as in Case 1.

March 19.—Has blisters on tips of fingers of left hand.

24th.—Chloroform given in theatre. Esmarch's bandage applied. An incision was then made across cicatrix, along a line that had been marked before as principal seat of pain. Median nerve found very superficial; the lower end of upper fragment was bulbous and united to the cicatrix, but the upper end of the lower portion appeared to be withdrawn somewhat into the palm, and could not be found. The bulbous extremity was removed; the skin was then brought together by sutures, and a pad was applied.

25th.—Bandage slackened a little this morning. Had a good deal of pain last night. Thumb swollen. Pulse 92; temperature 99°.

27th.—Not much discharge from wrist; swelling in thumb gone down. Temperature normal; pulse 94.

29th.—Wrist going on well; feeling in fingers unaltered.

April 2.—Wrist healing well. Has small wounds on tips of fingers.

28th.—Wrist quite well; bandage taken off. Feeling no better in hand.

May 5.—Discharged. Feeling in hand no better; wasting of muscles of ball of thumb much increased.

Treatment of Patients at Home.—The Assistance Publique of Paris having found great advantage in treating medical and midwifery cases *à domicile*, both as regards economy and the welfare of the patients, contemplates extending this to surgical cases. To this, however, much opposition has been raised in the Société de Chirurgie and elsewhere, on the ground that these cases require the appliances of a hospital. M. Boinet, who strongly advocates their treatment *à domicile*, gives an account in the *Gazette Médicale* for January 22 of the great success that has attended this treatment as applied to medical and midwifery cases during 1874. In that year there were 59,622 medical cases so treated at an expense of 6 fr. per patient, the whole representing 793,966 days of illness. These cases otherwise treated would have required 2175 beds in the hospitals, and the mean duration of the cases would be fourteen days at 1 fr. per diem. The deliveries *à domicile* were 13,868, with only thirty deaths, and cost nearly 16 fr. per case. Besides these, 2238 were delivered at the houses of midwives at 50 fr. per case. The entire expense of the sick and the deliveries was 800,000 fr.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, FEBRUARY 26, 1876.

REPORT OF THE ROYAL COMMISSION ON VIVISECTION.

A month ago, when commenting on the letters of Mr. Auberon Herbert and Lady Burdett-Coutts on vivisection, and regretting that any such attempts should have been made to again rouse public feeling on the matter, before the report of the Royal Commission on it had been published, we said that we awaited "with confidence the report and judgment of the Commission on Vivisection; at any rate, so far as concerns the practice in our own country." But we confess that we hardly ventured to expect so full, complete, and absolute a vindication of that practice as is given in the now published report. We remembered that sometimes "evil is wrought by want of thought, as well as by want of heart." We knew that things are sometimes done, in the name of science, that the true lovers and followers of science would lament and repudiate; and we supposed that some evidence must be forthcoming to justify, or at least to excuse, the agitation excited and the terrible charges brought against the "vivisectionists" so-called. But the physiologists, physicians, and medical students of this country are fully vindicated from the imputations so freely cast on them. The Commissioners, whose patient, minute, and careful labour, impartiality, and ability are beyond praise or question, assure her Majesty that a general sentiment of humanity on the subject pervades *all* classes, and they bring forward evidence which repels the charge of "anything like indifference to suffering" on the part of physiologists or students. The evidence taken by them must be allowed to be most ample, and it was taken from representatives of the various societies that have been formed for the protection of animals, and for the abolition or restriction of experiments upon them, as well as from the most distinguished physiologists, physicians, and surgeons of this country; but the result is that not a single instance was proved in which the practice of vivisection for scientific ends had been abused. Even the Secretary of the Royal Society for the Prevention of Cruelty to Animals acknowledged his inability to establish a single case of wanton cruelty. It was proved that the extent to which vivisection has been made use of in our medical schools has been grossly exaggerated; and that unnecessary pain has not been inflicted, anæsthetics having always been employed when practicable; and, moreover, that instead of there being any truth in the charge that these experiments foster callousness in medical students, they are ever quick to resent the infliction of any avoidable pain. It must be admitted that the verdict of acquittal is complete when we add that the report is signed by Mr. Hutton, the Commissioner who has shown the greatest—eagerness, we were going to say, but, at any rate, the greatest zeal in decrying and opposing the abuses charged against vivisectionists. Thus Science is justified of her children, and the completeness of the answer to their detractors will rejoice the hearts of all lovers of knowledge and truth.

The Commissioners entered, further, with great ability and no little fulness, into the consideration of the question, whether the practice of vivisection is under any conditions justifiable; and, analysing and comparing with great care and acuteness the evidence laid before them, they drew out as inevitable the conclusion that the physiological discoveries to which mankind are most deeply indebted have been made by means of experimentation on living animals, and without that means never could have been discovered. They point out that from the very earliest days of the study of medicine this means of research seems to have been employed; and they trace the use of it—that is, the use of vivisection—from the days of Galen and Celsus, down through Harvey, Haller, and other great physicians and physiologists, to the present time. They consider the use and value of experimentation on living animals under three heads:—First, experiments performed for the purpose of examining the processes of life; secondly, the administration of poisonous and dangerous drugs for therapeutical or medico-legal purposes; and thirdly, the artificial production of disease with the objects of observing its progress and discovering the means of preventing, mitigating, or curing the effects of the same or like diseases in men or animals. Under the first head, the Commissioners refer especially to three great discoveries—that of the circulation of the blood, that of the lacteal and lymphatic system of vessels, and that of the compound function of the spinal nerves,—because these subjects lie at the very foundation of our present knowledge of the laws of normal life; though they remark that "it would require a voluminous treatise to exhibit in a consecutive statement the benefits that medicine and surgery have derived from the discoveries due" to even this class only of experiments. Numerous striking and weighty illustrations are also given of the importance and value of the second and third classes of experiments; and it is made abundantly clear how it is not mankind only that is benefited by such researches, but that the condition of the lower animals is also being constantly improved by means of them. Considering all these things, the Commissioners—having already proved that the practice of experimentation on living animals has not been abused, in this country at least,—arrive further at the conclusion that it would not be reasonable, even were it possible, to prohibit it. But they consider that it is prudent and right to guard against even suspicions of any likelihood or possibility of its abuse; and they examine and reject various suggestions that have been made for that object. Thus, they reject a proposal to enact "that the object in view shall be some immediate application of an expected discovery to some prophylactic or therapeutic end, and that any experiment made for the mere advancement of science shall be rendered unlawful"; for, as they point out, Harvey's great research was, at the time he made it, "a mere scientific discovery"; and the

contraction of the muscles of the frog was at first observed by Galvani only as a scientific curiosity; and they remark that "the first origin of a great discovery is often like the germ of the natural life in an animal or a vegetable, so small as to be scarcely perceptible, and yet it may contain in it the grandest results." They also reject the proposal to prohibit demonstrations of experiments to the students in medical schools, while they hold that only such experiments as can be performed during anæsthesia should be so demonstrated. Finally, they recommend the enactment of a law which should vest in the Secretary of State the power of granting licences to persons desirous of performing experiments upon living animals. The licences are to bear such conditions as to insure that in no avoidable case shall suffering be inflicted, and that, where unavoidable, it shall be reduced as much as possible. The responsible Minister is to be guided by the opinion of advisers of competent knowledge and experience, whose names are to be published. An inspector or inspectors should, the Commissioners advise, be appointed, of knowledge and position such as to command the confidence of the public no less than that of men of science. Any place where experiments are performed must be registered; and the Secretary of State is to have the power of obtaining returns and records of all experiments made, as well as the power of inspection. Licences would be revocable on proof of abuse; but as a safeguard against misuse of this power, an appeal is recommended to a Judge of the Supreme Court with three competent assessors.

This is the weak part of the Report, and one to which men of science might very reasonably object. Having shown that the charges made against the practice of vivisection are, in this country, groundless, and having shown also the inestimable value of the practice, and admitted that it ought not to be forbidden, the Commissioners then go on to recommend that it shall be surrounded by certain conditions and regulations which must entail a certain expense on, and may prove not a little irksome to, all men of science who desire to enlarge the boundaries of knowledge by means of experimentation on living animals. The reasons for this appear to be in part some very vague "evidence" of "exceptional and abnormal" instances of inhumanity in young men and unpractised students, and some, so far as we can see, equally vague feeling in the hearts of the Commissioners, that there are somewhere or other cases of carelessness and indifference. But the chief reason is, no doubt, that the proposed regulations are meant to meet popular outcry and agitation, and to give the public the assurance that all experiments are carried on "under the reasonable superintendence of constituted authority." This is not justice; but though, as our contemporary the *Times* observes, "all the aspersions which have lately been thrown upon men of science are now finally removed," it may perhaps be politic and expedient to submit, though under protest, to regulations which, if enforced wisely and moderately, may put an end to popular outcry and agitation, and yet not in any serious degree impede scientific research; but on this point we shall be able to judge more clearly when we have been able to examine carefully the "evidence" adduced in justification of the Commissioners' recommendations.

THE EAGLEY EPIDEMIC.

There does not appear to be much hope that her Majesty's Government will feel moved to introduce any measure to secure regular and effectual sanitary supervision of dairy-farms. We alluded to this subject last week, when speaking of the Eagley epidemic; and on Monday evening, the 21st inst., Mr. Charley put a question on it to the President of the Local Government Board. He asked whether the President's attention had been called to the outbreak of typhoid fever at Eagley, "which had been attributed by the Medical Officer of Health to the pollution of milk by water defiled with sewage used for washing the milk-cans"; and he further, very sensibly and justly, we think, asked "whether, in view of the numerous and fatal outbreaks of a similar kind in Islington, Marylebone, Glasgow, Jarrow, and other places, which have been after due investigation attributed to a similar pollution of the milk-supply, the President would consider the expediency of introducing a measure for the protection of health by special sanitary supervision of dairy-farms and of the premises in which milk is stored prior to sale by urban milk-vendors." It is not very often, we fear, that we, or anyone else, can quite sympathise with or admire Mr. Charley's Parliamentary utterances; but in this instance, at any rate, he was inspired by sound knowledge and good sense, and his questions were calculated to do good service. The answer, however, was not satisfactory or encouraging. Mr. Sclater-Booth replied that, immediately on hearing of the outbreak at Eagley he had addressed a communication to the sanitary authorities of that place and of Bolton, and had received from them all the information at present available on the subject. Although there had, he said, been "no inquiry of a definitive or exhaustive character," it appeared to him that "two somewhat contradictory facts seem to come out—first, that the milk, though poor in quality, was not adulterated; and, secondly, that the milk-cans were washed with water from a highly-polluted source." We have not yet the report of the medical officer, which was to be presented to the Local Board on the 24th inst., but, from what we know already of his action in the matter, it appears to us that Mr. Sclater-Booth did him but scant justice; and the observation on the "contradictory facts" betrays some confusion of apprehension. The report from Mr. Sergeant, the Medical Officer of Health and Analyst for Bolton, that the milk, though very poor in quality, did not necessarily show intentional adulteration, is not in conflict with the statement that the milk-cans had been, or might have been, washed out with impure water. Milk may be of poor quality, and yet not have been deliberately diluted; while, if the milk-cans are washed out with contaminated water, enough of the element may easily, and without purpose, remain in the cans to infect the milk. This may well happen from carelessness only, and without any intention of adulteration. Mr. Sclater-Booth further said that he did not at present see his way "to introduce a measure for the supervision of dairy-farms and such other premises," but he thought it "quite possible that regulations might be enforced by by-laws or otherwise for their better regulation"; and he promised that this subject should have his attention. We must confess that we do not quite comprehend the meaning of this. We will hope that it may mean something useful and efficient, but the statement seems to us rather of the mysterious-official and purposely indefinite style. The subject is not a new one, and might well have commanded the attention of the Local Government Board before the Eagley disaster. Nor is it a new thing to place the conditions of a food-supply, and the premises of purveyors and vendors thereof, under sanitary supervision; while the paramount importance of insuring a pure and uninfected milk-supply cannot be disputed.

Meanwhile, the Eagley and Bolton epidemic runs the usual course of such outbreaks. The supply of milk from the suspected farm was at an early stage prohibited, and we do not learn that the number of sufferers has increased since our last week's report; but the number of deaths has risen, we believe, to seven or eight. All the houses in which cases of fever have occurred were, so far as we at present know, supplied with milk from the same source; while the water-supply seems to have been from different sources: thus it has been stated that the infected houses in School, Eagley, derived their water-supply not from wells, but from springs in Eagley Park.

THE DOCTOR'S AIDE-DE-CAMP.

Everyone, whether doctor or layman, who has had much to do with the management of the sick-room, must have felt the want of skilled nursing. It must, therefore, be a pleasure to us to see any effort made for the education of nurses, and for the dissemination of accurate and useful knowledge of the principles of sound treatment. Nursing is essentially a feminine occupation, and one in which women may well claim supremacy. In the vocation of a nurse a woman finds an employment in which men cannot compete with her, and in which at the same time she may render the most important assistance to her suffering fellow-creatures. While, therefore, we cannot commend the desire of women to enter the medical profession, we can warmly encourage any scheme for efficiently training them for the performance of those duties which fall to the lot of the doctor's *aide-de-camp*.

We have been led to these reflections from the perusal of the very excellent address delivered a short time ago by Dr. Sieveking at a meeting of the Metropolitan and National Nursing Association, in which he stated the objects, method, and means of that institution. In speaking of the objects of the Association, Dr. Sieveking said, "I may state that the Society wishes in no way to weaken, undermine, or supplant medical authority, but to work cordially and unreservedly with medical men, and in support of the sanitary principles which are accepted as a pillar of a nation's greatness, and of which physicians have been for so long the main propounders. Of course I only speak of what I know, and therefore I do not hesitate to assure you of the desire of the Executive Committee of the Association to disallow, on the part of the nurses, any encroachment whatever on the prerogatives and duties of the medical attendant." There have been cases in which nurses, bold in the possession of a little knowledge—which is always a dangerous thing,—have presumed to question, and even to alter, the mode of treatment pursued by the medical man. There can be no excuse for this: the duties of the nurse and the doctor are distinct, and should run parallel without any clashing. The nurses of the Association we have mentioned undergo a twelvemonth's period of hospital training in the first instance; they then have three months' special preparation under the supervision of the Superintendent-General, and attend lectures delivered in the Home on physiology, hygiene, and anatomy.

Dr. Sieveking remarks, "Any medical man who has pursued his profession in the various classes of society is fully aware of the lamentable ignorance prevailing in all strata on subjects connected with the preservation of health and the prevention of disease; and, although we do not send out our nurses specially as teachers, it is manifest that they will be able to perform their own peculiar duties better if they understand the why and the wherefore, and that, in their intercourse with the uneducated and poor, they will incidentally have many opportunities of imparting correct views on fundamental questions of health, of eradicating false or foolish prejudices, and combating unfounded and silly superstitions."

We have not space to quote more of Dr. Sieveking's interesting address. The subject is one which concerns everybody, whether layman or professional. The spread of hygienic knowledge must surely tend to the eradication of many diseases, which we already know to be preventable by proper means, and therefore to the benefit of the population at large, while, to the medical man, the certainty of having his orders understood and faithfully and intelligently carried out must be very reassuring, and will create in him much more confidence in the employment of the resources of his art.

THE WEEK.

TOPICS OF THE DAY.

The quarterly report of Dr. Alfred Hill, Medical Officer of Health to the Borough of Birmingham, to January 1 last, records that during the period under notice sixteen cases of small-pox occurred, of which fifteen were reported to have taken place where vaccination had been resorted to, and one in an unvaccinated person. Two deaths resulted from this disease, one being that of the single unvaccinated case, treated in the Borough Hospital, while the other was that of a young man admitted into the hospital in the previous quarter, and who was the subject of heart disease; so that not one of the fifteen cases reported as vaccinated ended fatally, and all of them have either recovered or are convalescent. Dr. Hill further remarks that it is satisfactory to note that in his district small-pox has this quarter occasioned fewer cases and deaths than in any similar period since its outbreak in 1871. In the fourth quarter of last year, when it was nearly at its height, no less than 672 cases were reported. There is every reason to believe that the epidemic character of the disease has ceased, and if efficient vaccination could now be brought to bear upon everyone in the town, there would be no fear of the recurrence of such a visitation as that which for four years has caused so much alarm, suffering, and expense in Birmingham.

The Holborn District Board of Works have adopted the report of their Works Committee, with reference to the scheme of the Metropolitan Board of Works, in regard to sweeping away the rookeries which cover the extensive area of grounds lying behind Gray's-inn-road at its eastern side. The Works Committee recommend that, at the inquiry to be held under the direction of the Secretary of State for the Home Department, the Holborn District Board of Works, which is directly interested in the project, should, while not opposing the scheme altogether, point out such defects in it as may be apparent, with a view to their modification or removal. The Board will therefore be represented upon the inquiry which, by direction of Mr. Cross, will be made into the whole of this important sanitary scheme.

In reference to the war with the Malays, recent information received from Penang states that the troops in Perak, and more especially at Qualla Kangsor, are suffering considerably from diarrhœa, and a small body just returned from Kinta has lost two or three of its number from dysentery. The inferior quality of the water obtainable for drinking purposes, and the great exposure to the intense heat of the sun are set down as the causes of the sickness which is prevailing.

We have often heard of large sums being expended in the construction of buildings intended for public charities, but perhaps the statement made by Sir Charles Dilke, M.P., in a paper which was read last week before the Statistical Society, on the Municipal Government of Paris, records particulars of the most costly hospital ever designed. He asserts that when the late Emperor began to build the great Opera House, he also proposed to construct in the centre of the city a vast new State Hospital. A medical board, however, refused to sanction it; but the Emperor insisted on the scheme, and the hospital, not yet finished, has already cost nearly two millions sterling, or £2500 a bed, while the doctors declare it will be worse than useless when completed. In the course of the discussion which followed the reading of the paper, Dr. Mouat took exception to the foregoing statement, and he further asserted that to his knowledge the Emperor had not been to blame for this, the fault resting entirely with Baron Haussmann. As the main facts recorded were not, however, contradicted, we can only say "they do *not* always manage these things better in France."

Captain Wilson and Dr. Leach, inspectors appointed by the Board of Trade, have commenced an official inquiry respecting the outbreak of scurvy on board the *Royal Sovereign*. The proceedings were opened in London, but have been resumed at Liverpool. The mate of the vessel, in his examination, attributed the outbreak to idleness on the part of the crew, most of whom were foreigners,—a rather novel cause to assign for the appearance of scurvy.

It is reported that small-pox has broken out amongst the prisoners confined in Norwich Castle. At the end of last week there were twelve cases under treatment, of which number two were regarded as serious. Meanwhile arrangements have been made for sending all prisoners from the county of Norfolk to the Norwich County Gaol. The outbreak has been traced to a prisoner brought from Harleston, to which place the disease had been carried from Manchester.

Many and various reports as to the condition of Barking-creek, since the completion of the main-drainage system by the Metropolitan Board of Works, have been circulated. The greater number of these have condemned its present state as decidedly insalubrious; it is therefore satisfactory to learn, from a special report presented to the Works Committee of the Board by their engineer, that he has had soundings recently taken of the Creek from its outlet into the river up to the town of Barking, and that, comparing those with the soundings taken in 1869 and 1858, he found that the bed of the Creek is deeper now than at either of the previous dates; that the water-way is increased, and that the bed consists principally of gravel, showing that there is no deposit from the sewage discharged at the Board's outlets. The engineer added that the smell of sewage was perceptible at the period of its discharge, in the immediate locality of the outlet into the Thames; but that this was not so offensive nor so constantly observable as the noxious effluvia from some of the adjoining manure manufactories.

The trustees of the Peabody Donation Fund, in their report for the year 1875, state that the net income of the year was £18,425, which, added to the amount of the fund given in the last report, makes the total at the end of the year £612,053. During the year the trustees have laid out in the purchase of land and the erection of buildings £69,092 5s. 3d., and the sum in their hands at the end of the year, available for future operations, was £162,676 11s. 6d. In April last the new buildings in Duke-street, Stamford-street, were opened, and in July those in Bermondsey, giving accommodation to 420 families. The twelve new blocks of buildings in Southwark-street, for 264 families, are now finished and being occupied. These buildings, being in such close proximity to the business parts of the City, are most eagerly sought after, upwards of 1000 applications having been made for the 264 sets of rooms. Twelve blocks of buildings of 200 tenements, near the Grosvenor-road, Pimlico, are rapidly approaching completion, and will be opened during the summer. When these are occupied the trustees will have provided dwellings for 1846 families. The freehold of about an acre and a quarter of land in Little Coram-street has been purchased, but as the leases on this property have several years to run, the site may not be available for building purposes for some time to come. The average weekly earnings of the head of each family in residence at the close of the year was £1 3s. 10d. The average rent of each tenement was 4s. 0½d. per week, and of each room 1s. 11d. The tenants have the use of scullcries, laundries, and bath-rooms free of charge. The rents charged vary at the various groups of buildings—for one room, from 2s. to 3s.; for two rooms, from 3s. to 4s. 9d.; for three rooms, from 3s. to 5s. 9d. The net income derived from the buildings occupied was a trifle over 3 per cent. per annum on the actual cost of land and buildings. Notwithstanding an epidemic at the Chelsea buildings, which caused a large number of deaths among the children, the death-rate for the year, in the whole of the buildings taken together, was only 20·8 per 1000.

The Brazilian Government has recently signed a contract with a London firm of contractors for the construction of the necessary works for supplying Rio de Janeiro with water. The stipulated cost is £2,000,000 sterling.

The present condition of the Army Medical Department, in the dearth of candidates to keep up its established strength, seems to have attracted the attention of the press generally. Our contemporary the *Globe*, in concluding some very pertinent remarks on the subject, observes as follows:—"That the medical officers of the army have some grievances there can be but little doubt; and something must therefore be done to render once more popular that branch of the service on which the welfare and health of our troops depend."

During the month of January last there were registered in the eight principal towns of Scotland the births of 3780 children, of whom 1982 were males and 1798 females. Of these, 3458 were legitimate and 322 illegitimate. The deaths of 2652 persons were registered during the same period; allowance being made for increase of population, this number is 514 below the January average for the last ten years. The death-rate for the month was lowest in Leith (23 per 1000) and highest in Paisley (31 per 1000). The zymotic class of diseases proved fatal to 510 persons, or 19·2 of the whole mortality, and diseases of the respiratory organs to 648, or 24·4 per cent. of the total number; 1 male and 8 females had passed the ninetieth year of life, the eldest of whom, the widow of a seaman, was aged ninety-nine years.

The Emperor of Austria has conferred on Mr. Max Greger, of London, the title of a Knight of the Imperial Order of Franz Josef, in recognition of Mr. Max Greger's improvements in the culture and export of Hungarian wines.

SANITARY DWELLINGS FOR THE WORKING CLASSES.

A PAMPHLET by Mr. Matthew Allen, entitled "Plans and Suggestions for Improved Homes for the Working Classes," has been received with approval by various members of the Metropolitan Board of Works at its last meeting. It advocates the "flat" principle (which has been very extensively carried out in Scotland) for the buildings, on the score of economy both in the saving of ground-rent, and in the prevention of unnecessary increase in the rates for paving, lighting, etc.; also the adoption of outside balconies as excellent substitutes for close passages, which are generally receptacles for foul air. These balconies become breathing-places for the elder dwellers, playgrounds for the children, and in many instances are turned into unglazed greenhouses by the more tasteful of the inmates. The rooms, Mr. Allen suggests, should be of different sizes; and apartments consisting of two, three, and four rooms should exist in the same building, not to be separated into distinct blocks, as they are in the plans of the Metropolitan Board of Works. The variety of sizes is described as an advantage: large rooms can be readily adapted to sleeping purposes (and that without the sacrifice of all privacy) by the use of screens; and it is obvious that the plan of having apartments of two, three, and four rooms on the same floor will enable friends, whose requirements as regards accommodation may differ considerably, to reside near one another. This could not be the case if only one kind of apartment was to be found in any given block. Much stress is laid upon the important item of ventilation, which Mr. Allen admits to be the most difficult problem which presents itself for solution in relation to architecture at the present time. One thing is insisted upon: that the common refuse shaft, which is a necessary appendage to a block of artisans'

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dwellings, ought to be carried above the roof. It is only by this means that all disagreeable and injurious effluvia can be safely got rid of. The rooms are to be of such a size as to give five hundred cubic feet of air to each person, and every provision is to be made to secure privacy to those who must occupy rooms in common. There are many simple means by which decency and delicacy may be inculcated with those whose necessities compel them to occupy a single room, and the improved dwellings for the working classes should be deficient in none of these. Mr. Allen's plan of providing the occupants of different apartments with washhouses and other things in common may have certain disadvantages, but it secures many desirable sanitary ends, such as the withdrawal of the unhealthy and uncomfortable conditions of "washing-day" in those rooms; while it would also prove a means of considerable saving to individual members of the community. Mr. Allen's pamphlet contains many excellent suggestions, the result of practical experience, and at a time when large sums of money are about to be expended all over England as a consequence of recent legislation, it is important that the very best principles should be secured in building improved dwellings on the site of former structures heretofore devoted to dirt, misery, and disease.

THE VALUE OF A BUNDLE OF CLOTHES.

The report of the Medical Officer of Health (Dr. Russell), submitted to the fortnightly meeting of the Glasgow Police Board on the 21st inst., contained a notice of two fatal cases of small-pox, occurring after an interval of fully twelve months. One was that of a man who had come to the Glasgow Hospital from Kilsyth, where the disease prevailed; and the other was that of a child, fourteen days old, which died in its own home. Neither of these individuals had been previously vaccinated. Since the last fortnightly report of the Medical Officer, three cases of small-pox have been registered, as against two. The report also contained an interesting reference to the mode in which this disease may be propagated. It appears that a short time since a man died from small-pox in Kilsyth, whose infected clothes were sent on by train from Croy to Glasgow, and thence to Johnstone. From this single case there arose eight cases in Johnstone, and three in Glasgow, one of which proved fatal. In an appendix, Dr. Russell states that since making the above report he has traced another group of cases of small-pox to the bundle of infected clothes above referred to. His attention has just been directed to a suspicious case in the Central District, which he pronounced to be small-pox. The man's wife, however, declared it to be chicken-pox, which, she alleged, she herself had a few weeks ago. On inquiry, the following history was elicited:—The man and his wife spent the New Year holidays at Winchburgh. The wife remained a few days longer than her husband, and returned to Glasgow on January 8. The compartment in which she travelled was very full, and in the next division was an old woman, who cried very much about her son being dead. This woman had a large bundle. Ten days after this the wife took ill, and had what she calls chicken-pox. Twelve days after this a lodger in the house took ill, but, the eruption being scanty, and not feeling very sick, he did not discontinue his work. The husband of the wife is now ill with pronounced small-pox. This makes a total number of fourteen cases infected from the bundle of clothes.

MEMORIAL TO THE LATE MR. GASCOYEN.

We hear that there is a movement on foot for a memorial to the late Mr. Gascoyen. To this end a meeting is summoned for Wednesday next, the 1st prox., in the Anatomical Theatre of St. Mary's Medical School. We can only say how heartily we sympathise with such steps to keep green the memory of one so good and gentle.

ANENT THE WATER-SUPPLY OF DUBLIN.

Last Tuesday's Dublin *Daily Express* contains a paragraph headed "Drowned in the Public Street," as follows:—"On Sunday evening a poor woman, named Catherine Duffy, living in one of the numerous courts off Marrowbone-lane, met her death under the following circumstances:—It appeared that beneath the court where she lived the Poddle River flows, and the people in the neighbourhood are in the habit of raising water out of it through a wooden trap in the court, which lifts for the purpose. The deceased, in stooping to raise the bucket of water, overbalanced herself, and fell into the river, which was flowing swiftly in consequence of the heavy rains of the morning. Several neighbours who saw her disappear rushed forward, but they were too late, as she had been carried off down the dark narrow passage, and was beyond all aid. Yesterday morning excavations were made in different streets along the course of the river, in the hope of finding the body, but no trace of it could be discovered. No doubt it was caught in some of the crooked windings of the stream, where it will remain until devoured by the rats, which abound in the adjoining sewers and drains." This horrible narrative calls for some notice. As is well known, Dublin—thanks mainly to the indomitable energy and perseverance of a member of our own profession, the late Sir John Gray—possesses an abundant supply of pure water. How comes it, then, that the inhabitants of one of the poorest, most fever-stricken quarters of that city "are in the habit" of using water drawn from the Poddle River? This water-course, which in former times was actually the source of water-supply to the manors of Thomas Court and Donore—that is, to the present "liberties" of Dublin—is little better than a sewer, receiving, as it does, a large quantity of filth in its passage through the purlieus of a notoriously dirty city. Only last June, on the occasion of the great fire in Chamber-street, the arches, which were built over the Poddle about two years ago, were burst by the ignition of whisky flowing into the river through the street-gutters. And yet this is the stream of whose defiled waters the poor are permitted to make use! Surely the Corporation of Dublin owe some explanation as to the facts brought to light by the deplorable accident above recorded.

REPORT ON THE METROPOLITAN WATER-SUPPLY FOR THE MONTH OF JANUARY LAST.

The water supplied to the metropolis from the Thames during the month of January was inferior in quality to that delivered in the preceding month. The water of the Chelsea, Grand Junction, and Lambeth Companies was slightly turbid from inefficient filtration, and contained in each case moving organisms. The Chelsea Company's water also contained fungoid growths. The remaining samples were clear when drawn from the companies' mains. The water supplied from the River Lea by the New River and East London Companies was, on the other hand, of considerably better quality in January than in December, and it was efficiently filtered before delivery. The Kent Company's water from deep wells was of its usual good quality. The Grand Junction Company are erecting new boilers and works at Hampton; the construction of further impounding reservoirs for subsidence at the intake (so as to avoid flood-waters) has been authorised. This company have increased the capacity of their filter-beds at Kew; but, pending the construction of the additional subsiding reservoirs, they cannot deliver effectually-filtered water when floods prevail. The Lambeth Company have completed the extensions and improvements in their new works at Molesey; when full, the new reservoirs will contain about ten days' supply. The pumping-mains are being laid to pump to the reservoir about to be made at Norwood. The alterations in fittings under the Board of Trade rules and regulations are being gradually

effected as occasion offers, and are carried out in all new buildings. The Company intend shortly to extend their area of filtration. The rate of filtration of the metropolitan water-supply should not exceed two gallons and a half per square foot of filter-bed per hour; this will give 540 gallons per square yard each twenty-four hours; and at this rate, with properly-constructed filter-beds, filtration ought to be effectual.

SINGULAR DEATH FROM PUERPERAL CONVULSIONS.

On Monday, the 14th inst., Mr. Lowe, Coroner for Lincoln, held an inquiry respecting the death of a Mrs. Willson, of that city. Deceased had been ill two or three days, and had been attended by Mr. Macdonald, surgeon, who certified that the cause of death was puerperal convulsions. In opening the inquiry, the Coroner said that as he did not consider the certificate satisfactory, he had instructed the police-sergeant to make further inquiries, and from his report he had decided to hold an inquest. In his evidence, Mr. Macdonald stated that on the Thursday before her death he was called to see deceased, and found her complaining of slight labour pains, she being then seven months pregnant. He gave her a soothing draught, and she had a good night's rest. Next day he sent her another draught, to be taken at night if necessary. She retired to bed about nine o'clock on Friday night, having previously taken the draught. At half-past twelve Mr. Macdonald was again called to her, and found her insensible. He inferred that she was suffering from puerperal convulsions, as she had had previous attacks of that kind. He ordered hot-water bottles to her feet, and brandy to be given if she rallied. During the night she remained unconscious, and appeared to be in a deep sleep. The husband kept a light burning, and spoke to her several times in the night, but she made no reply. He was not alarmed at the symptoms until about half-past five o'clock, when she moaned and died almost directly. As far as we can learn from the evidence given at the inquest, there was no sign that the deceased was in labour. Mr. Macdonald admitted that he made no examination, and, although he diagnosed puerperal convulsions, made no attempt at delivery. The case does not strike one as being a typical example of *puerperal convulsions;* still the jury were satisfied, without the evidence which might have been gathered from a post-mortem examination, that death was due to natural causes.

POOR-LAW MEDICAL RELIEF AT PLYMOUTH.

The Plymouth Board of Guardians are in difficulties respecting the medical officership of the Northern District of the Union, which is now vacant, through the resignation of the late medical officer. Advertisements have been issued inviting candidates for the office; but, at their meeting last week, the guardians were somewhat astonished to find that no applicant presented himself. Some of the guardians were in favour of offering a larger salary, but the majority decided to make another effort to secure a medical officer for the inadequate sum hitherto paid; but we shall be surprised if anyone can be found to meet the guardians on their terms. It is scarcely probable that a competent medical man will be found to undertake the duties of such a large poor-law district for £90 per annum, when so many better appointments are going a-begging, especially as he is expected to provide the necessary drugs. It is reported that the late medical officer contracted with a chemist to supply all the medicines required, on the distinct understanding that none but inexpensive ones were to be ordered. If this is a fact, the Plymouth Guardians ought, in justice to the sick poor, to pay their medical officers an adequate sum, to enable them to give the sick poor the medicines they require regardless of cost, or adopt the dispensary system, which is, perhaps, the most satisfactory method of affording medical relief in populous districts.

THE LICENTIATESHIP OF MIDWIFERY AT THE COLLEGE OF SURGEONS.

At a special meeting of the Council of the Obstetrical Society of London, held on February 18, the following resolutions were passed, and subsequently forwarded to the Council of the Royal College of Surgeons of England:—"1. That obstetric science is an integral part of medicine, and cannot be taught or practised with advantage to the community apart from that full degree of knowledge and skill in medicine and surgery which is held to be essential for the safe practice of the healing art." "2. That the Council of the Obstetrical Society of London learn with regret that the Royal College of Surgeons of England are legally required to admit persons to examination for the midwifery certificate who are not possessed of any other medical qualification; and they beg leave to represent to the College how injurious to the general interests of the public and the profession would be the admission of persons to the Medical Register so imperfectly qualified for medical practice." At the same special meeting the following resolution was passed, and has been since forwarded to the General Medical Council:—"The Council of the Obstetrical Society of London beg respectfully to call the attention of the General Medical Council to the fact that persons possessing a certificate to practise midwifery from a corporation recognised under the Medical Act can claim to be registered as practitioners without any other qualification; and to point out to the Council how injurious to the interests of the public and the profession will be the admission of persons to the Register so imperfectly qualified for medical practice."

THE UNIVERSITY COLLEGE HOSPITAL DINNER.

On Thursday the annual dinner on behalf of the funds of University College Hospital was held at Willis's Rooms. Lord Aberdare presided, and fulfilled the duties of chairman well, though occasionally he relapsed into some of the well-known attitudes of Mr. Bruce the undecided. He had made himself fully master of the circumstances of the Hospital, and with regard to them spoke well. One fact was again prominently brought out—viz., that the whole of the fees which arise from clinical teaching are absorbed in the Hospital funds. Mr. Heath, in replying for the medical officers, said this amounted to as much as £2000 per annum. This is a large sum, and it weighs heavily on the medical officers that they should be compelled to give it up. Surely an institution of such value and importance might be supported by the public if proper care were taken to bring its claims forward. As regards the dinner itself, it was good as public dinners go. Indeed, upon the whole, there is no place where such dinners are so well provided as at Willis's, but it has often struck us as curious that at all these dinners there is an almost unvaried bill of fare. Could not something be done to redeem this monotony?

THE NEW DENTAL SOCIETY.

We are informed that the arrangements connected with the formation of this Society are rapidly approaching completion. A correspondent writes to us that "the response with which the movement has been met gives proof of a desire, that has long existed in the minds of some members of the profession, for an opportunity of proclaiming their confidence in the theory that the steady advancement of the specialty they practise depends, of necessity, upon its recognition and treatment as an integral part of the science and art of medicine. The admission of this principle is that which binds the members of this Society together; and beyond the value that attaches to the publication of their avowed conviction in its reality, they look for results which will justify their hope that the movement upon which they are engaged will be of permanent benefit to the profession to which they belong."

MR. HUTCHINSON'S LECTURES AT THE MOORFIELDS HOSPITAL.

THE following is the syllabus of Mr. Hutchinson's course of Clinical Lectures now being delivered at the Moorfields Hospital:—Lecture VIII. On the Prognosis in Cases of Tobacco Amaurosis (March 2). IX. On Cases in Women resembling the Tobacco Amaurosis of Men, and on Similar Cases in Men who have not smoked (March 9). X. On a Group of Remarkable Cases of Recovery after Prolonged Blindness with Nerve-Pallor (March 16). XI. Sympathetic or Reflex Ophthalmitis (March 23). XII. On Disturbance of the Nutrition and Circulation in the Eye, produced through Nerve Influence (March 30). XIII. On the Influence of Dental and other forms of Neuralgia on the Eye (April 6). XIV. The Influence of Disorders of the Sexual Functions on the Nutrition of the Eyeball (April 13). XV. On a Group of Cases in which many of the Muscles of both Eyeballs are Paralysed simultaneously (April 20). The lectures begin at 8 p.m; the demonstration of cases at 7.30.

THE INTER-HOSPITAL FOOTBALL MATCH.

THE interesting competition between the football teams of the metropolitan hospitals for the possession of the challenge cup was brought to a conclusion on Monday last. The results of the matches in the first ties were reported in the *Medical Times and Gazette* of the 12th inst. In the second ties St. George's vanquished St. Thomas's, London beat St. Mary's, and University College completely overmatched Middlesex. In the third ties University College beat the London Hospital, and thus were left to compete with St. George's for the possession of the cup. The deciding match was very hotly contested, and caused a good deal of excitement. When "time" was called, the St. George's team were declared winners by one try and five touches-down to one touch-down.

DR. STOKES, D.C.L., F.R.S.

A FULL-LENGTH marble statue of our distinguished Irish *confrère*, the Regius Professor of Physic in the University of Dublin, has just been placed in the Hall of the King and Queen's College of Physicians in Ireland. It will shortly be unveiled. The statue, which is executed in the purest white marble, is an admirable likeness. It represents Dr. Stokes clad in his college robes, bearing on his breast the jewel of the Prussian Order "Pour le Mérite," recently bestowed on him by the German Emperor. The artist, Mr. Teniswood, has been very happy in catching one of Dr. Stokes' most characteristic attitudes. The College Hall is now adorned with marble statues of the late Sir Henry Marsh, Bart.; Sir Dominic Corrigan, Bart.; and Dr. Stokes.

SCIENTIFIC GRANTS BY THE BRITISH MEDICAL ASSOCIATION.

AT the last meeting of the Committee of Council the following scientific grants were made, on the recommendation of the Scientific Grants Committee, in addition to those granted in August last, making a total for the year of £268:—Professor Rutherford—a further grant of £80, in addition to £20 granted at the last meeting, for researches on the biliary secretion; Dr. M'Kendrick—£30 for researches into the antagonism of medicines, and £10 for researches on the dialysis of blood; Dr. Alfred Galabin—£15 (or £20 if required) for investigations in pulse-curves, especially in relation to such states as fever and Bright's disease.

LICENCES TO KILL.

THE stamp duty on patent medicines for the twelve months ending March 31, 1875, amounted to £109,237. In the previous year the duty was £95,388. It would be instructive if it could be ascertained how many deaths took place in the above periods which were due to overdoses of quack medicines either administered in ignorance or with a criminal intention. We should then know exactly how much per head Government receives for every life that is sacrificed through the uncontrolled sale of deadly poisons as patent medicines.

THE OBSTETRICAL SOCIETY.

WE are requested to state that in consequence of the annual meeting of the Royal Medico-Chirurgical Society being fixed for Wednesday, March 1, the meeting of the Obstetrical Society is postponed until Wednesday, March 8.

PARLIAMENTARY.—CIVILIAN DOCTORS IN THE ARMY—PLEURO-PNEUMONIA—MEDICAL ACT—VACCINATION—TYPHOID FEVER AT EAGLEY—MILITIA SURGEONS—MEDICAL CERTIFICATES.

IN the House of Commons, on Thursday, February 17,

Mr. Hardy, replying to Mr. Ward, said that several civilian medical men were employed in the army in the place of army surgeons absent on leave, and some of these were attached to the auxiliary forces on special occasions.

Sir M. H. Beach, in reply to Mr. Barclay, said that the Irish Government have felt unable to issue orders for compulsory slaughter of animals affected with pleuro-pneumonia, not only on account of the special circumstances of Ireland, but by reason of the law which exists with regard to cattle disease in that country. Sir M. H. Beach proposes in a few days to introduce a Bill to amend the law so as to meet the difficulties which have hitherto existed, and to secure uniformity of regulations throughout the United Kingdom.

On Friday, February 18,

Mr. Gibson obtained leave to bring in a Bill to enable legally qualified practitioners to hold certain public medical appointments, and to amend the Medical Act.

In Committee of Supply, on the vote of £693,287 for the salaries and expenses of the Local Government Board,

Mr. Meldon rose to move a reduction of £1000 in the portion of the vote applicable to the Medical Department. He did not desire to oppose the sum of £10,000 voted by Parliament for public vaccination, but to point out the injustice done to Ireland in that matter. The only State grant made to Ireland for the purposes of vaccination amounted to £400 a year, and the Medical Department of the Privy Council did not assist in the supply of vaccine lymph to the same extent as he thought they should (the hon. member's grievance being that medical men in Ireland were obliged to take lymph from children's arms,—under the impression, apparently, that it was practically obtainable from other sources). The people having a strong objection to arm-to-arm vaccination, the practice was becoming unpopular.

Captain Nolan hoped that every effort would be made to render vaccination general and effective both in England and Ireland. Six times as much was spent for vaccination per head of the population in England as in Ireland.

Sir M. H. Beach replied that if on inquiry the present system was found inadequate, and limited the benefits of vaccination, he would make some new arrangement.

Dr. Ward advocated the plan of free lymph being given to Ireland, as since 1871, when such arrangement was brought to a close, the greatest outbreak of small-pox known in Ireland for thirty years appeared.

Dr. Cameron said that these expenses should be charged on local funds, which might be subsidised to the same extent in all parts of the country.

On Monday, February 22,

Mr. Sclater-Booth, replying to Mr. Charley, said that he had received communications from the sanitary authorities of Eagley and Bolton, the result of which was that two somewhat contradictory facts had come out—first, that the milk, although poor in quality, was not adulterated; and, secondly, that the milk-cans were undoubtedly washed with water from a highly polluted source. He did not at present see his way to introduce a measure for the supervision of dairy farms and other such premises, but he thought that regulations might be enforced by by-laws or otherwise for their better regulation.

Mr. Hardy, replying to Sir E. Wilmot, said the new medical regulations had not yet been issued by the War Office. It was proposed to retain the services of the Militia Surgeons under conditions which would be published. As to the last part of the question, no Surgeons of Militia in good health and able to discharge all duties required of them had received notice to resign their commissions under the circular referred to.

Mr. Sclater-Booth, replying to Mr. Waddy, said: It is

true that in reporting on the sanitary condition of Tunstall in 1872, Dr. Ballard complained that the statistical results of the register were rendered unreliable, partly from the absence of certificates, and partly because the persons whose deaths were the subject-matter of his inquiry were attended by unqualified persons. His report as to Oldbury in 1875 was also to the effect quoted; but it is not strictly accurate to make use of the word "certificate" in reference to these entries. There is no certificate of death recognised by the Registration Act except that of a registered medical practitioner. Causes of death where there is no such certificate are registered in accordance with instructions issued by the Registrar-General; the regulations for which are as follow:—"Unregistered Practitioners.—Any formal certificate or written statement of the cause of death furnished by an unregistered assistant of a registered practitioner, or by a qualified but unregistered practitioner —*e.g.*, 'bone-setter,' 'herbalist,' etc.—and produced to the Registrar, must be regarded by him simply as part of the information tendered by the informant of the death, who must take the responsibility of adopting the statement of the cause of death so furnished. In such cases nothing beyond the cause of death must be entered in Column 6, no reference whatever being made to the fact that the information was obtained from any formal or written document, and the name of the person signing such document must on no account be recorded in the register."

NAVY AND INDIAN MEDICAL SERVICES.

The following are the questions which were set at the recent examination of candidates for commissions in her Majesty's Navy and Indian Medical Services:—

Anatomy and Physiology.—1. Give an account of the origin, connexions, distribution, and functions of the pneumogastric nerve. (Its course and anatomical relations are not required.) 2. Describe the urinary bladder and its relations to surrounding parts under varying conditions, such as age, sex, degree of fulness, etc.; and give the minute structure of its tissues. 3. Give the origin, insertion, and action of the following muscles; also state the nerves by which they are respectively supplied: 1, gluteus maximus; 2, tensor vaginæ femoris; 3, obturator internus; 4, obturator externus; 5, flexor longus digitorum; 6, stylo-pharyngeus; 7, tensor tympani; 8, buccinator. 4. What conditions influence the rapidity with which blood coagulates, within and without the body, or prevent its coagulation altogether? 5. The cervical plexus: what nerves constitute it, and how are they arranged? What nerves proceed from it, and their distribution? 6. How would you proceed to detect the presence of urea in any animal fluid?

Surgery.—1. Enumerate the various causes of obstruction of the bowels, and their different diagnostic points; and describe such surgical measures as are applicable to their relief. 2. Describe the symptoms of acute periostitis; its causes, results, and treatment. 3. Describe the symptoms of a scirrhous cancer of the female breast, and under what circumstances its removal may be recommended. Describe the microscopical character of scirrhus. 4. Describe the symptoms of stone in the bladder, and its effect on the uriuary organs if not removed; and under what circumstances lithotrity should be preferred to lithotomy. 5. Describe the symptoms of syphilitic iritis, its effects if not arrested, and its treatment. 6. By what symptoms is senile gangrene usually preceded? Describe the conditions of a part affected by such gangrene, and the treatment to be adopted.

Medicine.—1. What are the chief causes of palpitation of the heart? and what are the signs and symptoms by which you would recognise the agency of each cause? 2. What are the symptoms of intestinal obstruction due to intussusception? Describe the beginnings, the usual course, and the possible terminations of such cases, and their appropriate management. 3. Describe the morbid appearances seen in the abdominal viscera in a severe case of enteric fever—death taking place during the third week. 4. Describe a case of scarlet fever, its possible sequelæ, the management of the case through all its stages, and the means you would take to prevent its spread. 5. What is a cross-birth? What are the points necessary to be made out regarding such cross-births, and how are such cases to be dealt with? 6. What are the medicinal properties of aconite, of belladonna, of digitalis? What are the Pharmacopœial preparations of each, and the doses of those used internally? What are the symptoms of the poisonous action of each of these drugs, and mention the appropriate antidote or remedy for each?

Natural History and Physics.—Zoology: 1. What are the orders of the class *Birds?* State their most important characters, and their chief differences in structure and habit. 2. Describe the mode of fecundation in reptiles and fishes. 3. To what division of animals does the medicinal leech belong? Describe its structure. 4. Describe the structure of the genus *Helix*. 5. Describe the structure of the eye in mammals, birds, reptiles, cephalopods, and insects. Botany: 6. Describe the structure and development of pollen, and indicate its course to the embryo sac. 7. Give the distinctive characters of algæ, lichens, and fungi. 8. Contrast the structure of the root and stem of an exogen. 9. Contrast the characters of Labiatæ, Scrophulariacæ, Boragineæ, and Solanaceæ. 10. From what parts of what plants are hemp, flax, and cotton obtained? Give the natural order of each, and state how they can be distinguished. Physics, etc.: 11. What is meant by the atomic theory, by latent heat, specific heat, radiant heat, and sensible heat. 12. Explain the action of the pulley and lever. 13. Describe an electrical machine and a galvanic battery. 14. What is the composition of sea-water? What are the properties of hard and soft water respectively? How would you make hard water soft? 15. Describe vinous and acetous fermentation.

FROM ABROAD.

Examination per Vaginam.

Prof. Alphonse Guérin prefaces his clinical lectures at the Hôtel-Dieu, on the Surgical Diseases of Women (reported in *Gaz. des Hôp.*, January 27) by some useful remarks on the employment of the *toucher*. Of the two modes of exploration, he observes, this is of the first importance, as without it nothing in gynæcology can be treated of with precision; and it is for want of having recourse to it that so many practitioners make erroneous diagnoses, perpetuating diseases of whose very existence they remain ignorant. For the last forty years it has been said that by means of the speculum all lesions of the uterus may be made out, while the greater number are undetected by its aid. It does, indeed, furnish abundant information concerning the os uteri, but it teaches us nothing regarding the volume of the body of the organ, nor of the other organs situated in its vicinity. By means of the *toucher*, on the contrary, we can explore the cervix and the *culs-de-sac* of the vagina, and are able to recognise the presence of tumours, and the various forms of uterine deviation, especially when we combine with it palpation of the abdomen. But to derive all the benefit from it, there are certain precautions which must not be neglected. The first of these is to place the patient in such a position as will relax the walls of the abdomen. To this end the thighs must be flexed on the pelvis, and forcibly retained so by assistants. But if the surgeon is alone, he may content himself by flexing the thigh of the side on which he is placed, and so maintaining it by pressing his chest against the patient's knee. This is not necessary in order to examine the cervix, but it is indispensable for the exploration of the *culs-de-sac*. The hand also must be held in the following position:—The index-finger is to be carried to the perineum, and then gently introduced into the vagina by sliding it along from behind forwards. At this moment the thumb must be extended and directed forwards, while the other fingers are carried backwards into the interstice between the buttocks. This enables us to explore with the index the deepest portions of the vagina; but unless the precaution is observed of extending the other fingers between the buttocks, they will become, in the flexed position, an obstacle to the deep penetration of the index. Before passing the finger into the vagina it must be greased throughout its whole extent, down to the commissure which separates it from the thumb; and if this precaution be neglected, the commissure irritates the vulva and causes pain, so as to interfere with the effectual performance of the *toucher*. Another precaution is too often neglected. The index-finger can only properly explore the *cul-de-sac* which corresponds to the side on which the surgeon

is placed, for it is not sufficiently long to reach the opposite one when it is directed obliquely from one side to the other. If the disposition of the *culs-de-sac* be only considered for a moment, it will be easily seen that the index of the right hand can only with difficulty touch the left *cul-de-sac*—first, because it is not long enough when it has to be carried obliquely from the right side of the vulva to the left *cul-de-sac;* and still more because in this position it is the dorsal surface of the finger which corresponds to the wall of the vagina which is the object of exploration, in order to ascertain its consistence, and whether there are any tumefactions in its vicinity. The *toucher* must, therefore, be practised with both hands, employing the left index for the left *cul-de-sac*, and the right index for the right one. Finally, the *toucher* should always be aided by palpation of the abdomen. While the index is exploring the *cul-de-sac*, the abdomen must be gently compressed by the other hand, and it then becomes impossible for anything abnormal to escape an exploration so conducted.

Fatal Asphyxia from Bronchocele.

Dr. Andrew Smith publishes in the New York *Medical Record* an interesting case, of which the following is an abstract:—A girl aged sixteen was admitted May, 1875, on account of a bronchocele, which had first made its appearance in the preceding August. The neck was seventeen inches in circumference, and the tumour extended from the chin to the sternum, and from the external border of the sterno-mastoid on one side to the same point on the opposite side. She had had an occasional husky cough for some time, and experienced shortness of breath on unusual exertion. Iodine had already been tried without benefit, but half a drachm of the tincture was still injected into the growth occasionally in place of galvano-puncture, which was otherwise employed for fifteen minutes twice a week. At the end of about six weeks the size of the neck had diminished by half an inch. The treatment then seems to have been discontinued, the symptoms becoming somewhat aggravated but not urgent. On September 22, however, Dr. Smith was called to the patient, and learned that about an hour before she was seized after going out into the cool air with a fit of convulsive coughing, accompanied by excessive dyspnœa, and soon attended with unconsciousness. She died a few minutes after his arrival. At the autopsy, the vessels of the neck were found greatly distended. The sterno-mastoid muscles slightly overlapped the growth, but not so as to cause compression. The isthmus of the thyroid was not much hypertrophied, but the lateral lobes came closely in contact with each other at the median line, and extended posteriorly behind the trachea and œsophagus, completely embracing these, and meeting each other in front of the spinal column. The trachea was very much compressed from side to side, and its area was reduced at least one-half. The growth belonged to the form termed by Virchow "struma gelatinosa vasculosa."

Reviewing the case, Dr. Smith observes that it shows that in a case of bronchocele which is marked by even the slightest degree of dyspnœa, this may on slight provocation be increased even to asphyxia. In this case a smart attack of cough sufficed to induce congestion of the vascular growth, which, compressing still more the already contracted trachea, caused dyspnœa, which in its turn aggravated the congestion. The lesson to be derived from this is that after there is evidence that the trachea is becoming narrowed, active measures should be taken to reduce the size of the tumour. Had the treatment pursued in this case been continued (and no reason is assigned why it was not), this result would probably have been attained. "But if these means did not promptly suffice, I should not hesitate to adopt a plan which I have long had in mind—to reflect the skin from the tumour at two or more points, and then thrust a galvano-cautery loop into the growth in various directions, and leave the resulting tracks to suppurate." With respect to the treatment of the asphyxia in the present case, in the very vascular condition of the tumour the free division of the deep cervical fascia which kept up the pressure would probably have led to fatal hæmorrhage. But Dr. Smith regrets that it did not occur to him to try the effect of very copious venesection, which might have done good, both by abstracting blood from the tumour, and by weakening the heart's action, which was forcing blood into the quasi-erectile tissue of the gland. The influence of this latter agency was shown by the subsidence of the tumour as soon as the heart's action had ceased. It, however, needed this evidence, and that of the autopsy, to show that the dyspnœa was wholly dependent upon congestion of the growth.

REVIEWS.

On Phthisis: its Morbid Anatomy, Etiology, Symptomatic Events and Complications, Fatality and Prognosis, Treatment and Physical Diagnosis. In a series of Clinical Studies by Austin Flint, M.D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, etc.

This book, although of by no means equal merit throughout, unquestionably bears the stamp of careful and patient labour, guided by an experience and ability such as one would expect from Dr. Austin Flint's position and reputation. The author adopts the numerical method of investigation with reference to each department of his subject, analysing for this purpose notes of 670 cases. This method is more successful in Dr. Flint's hands in treating of the disease in its clinical than in its pathological or etiological aspects. In fact, Dr. Flint's cases, as he himself more than once incidentally admits, are not given in sufficient detail to furnish reliable data for any conclusions as to the pathology of the disease, or to settle any of the vexed questions respecting its nature or etiology. It is therefore, we think, to be regretted that the author has attempted to do more than record his general impressions upon these points, which would possess a certain intrinsic value, but the validity of which is certainly not strengthened by the facts adduced and analysed in support of them. Had he done this the reader would sooner arrive at the really excellent part of his work. We must refer to a few of the questions touched upon in these earlier chapters.

Dr. Flint, *e.g.*, emphatically denies the catarrhal origin of phthisis, and appeals to our experience of the seldomness with which phthisis supervenes upon bronchitis, between which latter disease and catarrh of the bronchial tubes he makes no distinction. Even apart from whooping-cough, however, it is not altogether uncommon for a general bronchitis in a young person to clear up, save at some one portion of the chest, there to become fixed, and to proceed to lung-destruction, by whatever name called. Recurrent winter bronchitis in middle-aged people sometimes has this termination. There is also, we are inclined to think, some reason in the belief that "galloping phthisis" commences as a virulent capillary bronchitis.

But to return to Dr. Flint's statements on the subject. He (if we understand him rightly) admits that in seventy-two out of 112 ordinary cases of phthisis a history was obtained of a dry cough lasting from eight months to a few weeks before positive signs presented themselves; and in thirty-nine cases he finds nothing noted as to the dryness or looseness of the cough. The fact that the cough was dry in these cases negatives, in the author's view, the possibility of its being occasioned by catarrh, or, as he prefers to term it, bronchitis. But he gives no definite information as to the presence or not of morning expectoration, a common and important accompaniment of "dry" cough. Again, in a considerable number of cases he has noted that the patients attributed their illness to "taking cold" from exposure to wet or other causes, but he disregards this statement as a mere *façon de parler* on their part. Doubtless all such histories are vague, but we submit that, so far as they go, they are in favour of the catarrhal origin of phthisis in many instances, nor do Dr. Flint's cases show in support of his own view the existence of the physical signs of consolidation from the beginning of cough. On the other hand, we venture to assert that local catarrhal signs may precede the signs of phthisis, and may never proceed to consolidation if duly cared for. The author speaks later on of *bronchorrhagia* as the usual source of hæmoptysis in early phthisis, nay, as a *prodromal event* that may precede the development of the disease for months or years, or that may be its first appreciable symptom, forerunning the cough and other pulmonary signs! He considers the most rational explanation of this symptom to be "that the hæmorrhage is an effect of hyperæmia or congestion of a section of the bronchial mucous membrane." We might very fairly retort—What is this but a bronchial congestive affection preceding the signs of phthisis? And if this "prodromal event" may be so active in some cases as to lead to copious hæmorrhage, may it not in many others run a more insidious course? We only refer to this as being somewhat inconsistent with Dr. Flint's argument, for the origin of decided hæmoptysis in bronchial hæmorrhage has never been satisfactorily demonstrated, and Dr. Flint has very little evidence to offer in favour of its real occurrence—indeed, he very sharply and rightly criticises an

evidently exaggerated statement of Niemeyer's on this subject. In connexion with fatal hæmoptysis occurring in the more advanced stages of the disease, we do not find the existence of an aneurism within the walls of a cavity alluded to. This has been repeatedly found, however, by several observers, and the author relates some fatal cases, evidently traceable to this cause. Again—and this is the last adverse comment we have to make—in dealing with the important question of the causative relationship between miliary tuberculosis and caseous deposits, we entirely fail to see how, from his stated facts, Dr. Flint succeeds in drawing his conclusion. In the first place, we must observe that the details of the cases are so scanty and incomplete as to be wholly insufficient to justify any conclusion whatever on this point; but, such as they are, they certainly seem to us to yield an almost triumphant refutation of Dr. Flint's own view. Let us very briefly recapitulate the essential points of the five cases related in regard to the question before us:—Case 1, aged thirty-two; duration of illness eleven days. Post-mortem: Pulmonary tuberculosis; *old pleuritic adhesions;* other organs not examined. Case 2, aged eighteen; fatal attack three months after typhoid fever; duration six weeks. Post-mortem: Tuberculosis of lungs, spleen, and peritoneum; *cheesy masses in spleen; mesenteric glands enlarged.* Case 3, aged sixty-eight; cough and hæmoptysis twelve months previously; onset of fatal malady with chills and sweatings; duration eleven weeks; diarrhœa in course of illness. Post-mortem: Pulmonary tuberculosis; *right lung adherent;* other organs not examined. Case 4, aged fifty-eight; breathless on exertion for five years; fatal illness brief, terminating suddenly. Post-mortem: *Old adhesions both sides; lower lobe of left lung collapsed and shrunken;* tuberculosis of both lungs; other organs not examined. Case 5, aged twenty-five; pregnant two months; cough for six weeks; hæmoptysis preceding year; dulness left apex, with feeble respiration and subcrepitant râles; died about seven months later. Post-mortem: General tuberculosis; bronchial glands enlarged; *three mesenteric glands enlarged and softened; soft yellow masses* in the pia mater; a small mass in the posterior lobe of the cerebrum, and two similar masses in the right corpus striatum. (The italics are our own.) It is upon such evidence as this that Dr. Flint observes, "These and other cases of acute tuberculosis militate against the late doctrine which attributes the production of tubercles to the absorption of degenerated morbid products. Certainly there were no products in the lungs to occasion auto-infection, and there was no evidence of their presence elsewhere." However probable this view may be, surely in each of the five cases quoted the positive statements we place in italics militate the other way; and the more so from the incompleteness of the examinations. We are not to be understood as committed to any one positive view on these questions: we only here point out what appear to be the weak places in Dr. Flint's arguments.

The succeeding chapters on Fatality, Prognosis, and Treatment are worthy of attentive study. The author's long and carefully-weighed experience is of the greatest value on these points; nor can we too much admire the close and searching analysis to which he has subjected his cases. They are, for the most part, the same cases that he has used in discussing the pathology and etiology of the disease, but the questions he has now to decide are more distinctly questions of experience, and as such are more amenable to his treatment. Dr. Flint records a goodly number of cases of recovery or arrest of the disease, which he analyses closely with regard to age, sex, family predisposition, digestive power, the occurrence of complications, hæmoptysis, laryngitis, pleurisy, fistula, etc., to ascertain the effect of such conditions or complications upon the prognosis. This is remarkably well done. Recalling to mind the mental attitude of these patients, Dr. Flint remarks "that most patients who recover from phthisis are persons of resolution and perseverance, persons who appreciate the nature of the disease and are determined to overcome it." In his remarks on treatment, the author is by no means ecstatic as regards the efficacy of any special drugs. We must refer our readers to the book for his careful statistics regarding the therapeutical and hygienic treatment of phthisis. The alcoholic treatment of phthisis is somewhat popular in America, and Dr. Flint has found whisky in free quantity, combined with plenty of fresh air, in some cases yield remarkable results; he also repeats an important statement respecting alcohol which he has elsewhere insisted upon—viz., that "among the great number of cases of phthisis in which he has advised alcoholics to be taken as a therapeutical measure, he has never known of a single instance of a patient becoming addicted to their use."

Vierteljahreschrift für Dermatologie und Syphilis. Erster Jahrgang, 1874. Wien: Wilhelm Branmüller. 1875.

The Quarterly Journal for Skin Diseases and Syphilis. Vol. I. 1874. Published by William Branmüller, Vienna.

This German quarterly is only an old friend under a new name and with slight internal modifications, and it was formerly known as the *Archiv für Dermatologie und Syphilis.* In the arrangement of its matter there is a considerable resemblance between it and the American *Archives of Dermatology*, which we have already noticed; but for some reasons, and especially for the greater fulness and completeness of its abstracts of dermatological literature, we are inclined to consider it superior to the latter periodical. The original articles in the *Vierteljahreschrift* are not numerous, but they are excellent of their kind. We have already noticed in this journal Dr. Geber's account of his researches into the nature of Aleppo boil; as well as an article by Dr. Veiel, of Canstatt, on "Acne caused by Bromide of Potassium." The other articles are—by Dr. Geber, "On a Rare Form of Nævus"; by Professor Lang, of Innsbruck, "On Cancer supervening on Lupus"; by Dr. Bergh, of Copenhagen, "On the so-called Borkenkrätze or Norwegian Scabies"; by Dr. Adler, of Vienna, "On Variolous Affections of the Eye"; and last, but not least, we have a most thoughtful and scientific essay from the pen of the accomplished editor, Dr. Auspitz, "On Venous Stagnation, or Arrest of the Venous Circulation in the Skin," about which we hope to have more to say elsewhere. The abstracts of dermatological works and papers in German and foreign literature are very full, and much increase the value of the journal. The typography, as well as the illustrations (several of which are coloured), do the utmost credit to the publisher.

A Popular Summary of Public Health and Local Government Law. (Extracted from "A Digest of the Law relating to Public Health.") By George F. Chambers, F.R.A.S., of the Inner Temple, Barrister-at-law, late an Inspector of the Local Government Board. London: Stevens and Sons, 119, Chancery-lane; Knight and Co., 99, Fleet-street. 1875.

The author explains that the object of this work is to provide a cheap and clear abstract of statute law for popular use. For those who desire to go deeper into the subject and study the decisions of the courts, or read for themselves the various statutes in full, Mr. Chambers points out that the larger volume prepared by him will afford all requisite information. The present "digest" is easy for reference, and enables the seeker after sanitary knowledge, possessed of scant time, to master the difficulties of the various Acts without wading through masses of irrelevant matter.

Importancia Clinica de la Temperatura en la Fiebre Tifoidea. Tesis de Justiniano A. Ledesma. Buenos Aires. 1875.

The Clinical Importance of the Temperature in Typhoid Fever. A Thesis by Justinian A. Ledesma. Buenos Aires. 1875.

This is a very excellent essay on the thermometry of typhoid fever, based on a large number of observations made by the author himself, and it is fully illustrated by most carefully executed tracings of his cases. Taking Wunderlich, Griesinger, and Jacquoud as his principal authorities on the subject, he compares his results with theirs, and points out several discrepancies between them. For instance, he proves from his tracings that the stadium of "ascending oscillations" in the first week may extend over six or even seven days, and not, as Wunderlich states, be limited to four or five days. The author carefully reviews the different stages of typhoid fever, and illustrates their peculiarities; and, in the concluding chapters, he compares the tracings of other diseases with those of typhoid fever, and, lastly, discusses the various methods for reducing temperature. The whole thesis is far above the average of such productions, and does great credit to the author's own industry and perseverance, as well as to the Medical Faculty of Buenos Ayres, at which he was a student. We recommend a perusal of this thesis to all those who are interested in the important subject of typhoid fever.

GENERAL CORRESPONDENCE.

FOREIGN HEALTH-RESORTS FOR THE AFFLICTED POOR.

LETTER FROM MR. ALFRED HUTTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—The "Foreign Health-Resort Fund," in connexion with the Central London Throat and Ear Hospital, was inaugurated at my suggestion because I had had personal experience of the great value of foreign waters in the treatment of throat diseases.

Either this treatment is based on scientific principles, or those who advise it are guilty of the grossest quackery. If the former hypothesis be correct, surely the poor who depend for their livelihood on a healthy voice—[costermongers, newspaper-boys, and street minstrels—*Printer's Devil*],—to say nothing of the poor cripples from rheumatism, are deserving of assistance in obtaining the means for treatment. If the latter suggestion be the true one, then the rich are grossly imposed upon.

Now, I am credibly informed that at one foreign watering-place alone, where I went last year for the second time, there were 15,000 visitors, of whom something like 5000 were English; that a large majority of those underwent medical treatment; that they were persons in a position to afford the best advice; and that they were recommended by the most eminent consulting physicians, who had failed to cure them by the ordinary therapeutic agents of the Pharmacopœia.

The only doubt I had as to the success of my scheme was whether the general English public might be sufficiently aware of the great medicinal value of foreign water treatment, but the idea never entered my head that the medical profession—much less the friend of a medical editor—could even pretend to entertain any sceptieism on the subject.

If you really desire to act on the Baconian quotation at the head of your column of "Notes and Queries," you will, I am sure, be happy to insert this short reply, not for your own information, but for that of your inquiring friend. In any case, I ask it as an act of justice to

Yours, &c., ALFRED HUTTON,
Hon. Sec. "Foreign Health-Resort Fund."

Army and Navy Club, Pall-mall, S.W., February 19.

*** Who that has not a soul above a joke can read the above letter unmoved? By all means, we say, send the poor things abroad—*and let their physician go with them.*

"RARE FORM OF PHTHISIS."

LETTER FROM MR. WM. TURNBULL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having observed some remarks upon a recent case, entitled a "Rare form of Phthisis," in your journal of the 12th inst., in which my name is mentioned, I have to request you in common fairness to insert the enclosed remarks I have to make upon the case. I am, &c.,

WM. TURNBULL, M.R.C.S. AND L.S.A.

257, Hampstead-road, February 17.

Phthisis in its Laryngeal Form.

In reply to your remarks, I beg to draw your attention to the symptoms during life which, undoubtedly, bear out my view of the case:—

1. Irritability of the glottis, with sore throat, attended with difficulty to swallow food.

2. Cough and expectoration of hæmoptysical sputa, great wasting of the body, sickness, and vomiting.

3. Ulceration of anterior and posterior nares and membrane lining same, ulcers on the fauces and tongue, showing constitutional affection.

4. In the evidence before the coroner the quantity of drink was stated to be three half-quarterns per day.

5. During a month previous to death the diet consisted of a teacupful of arrowroot, containing about two ounces of port wine, daily.

6. The patient was under my care for a long period, and repeatedly urged to take more food, but always declared her inability to swallow it.

7. The coroner not having issued his order upon me, as in fact was his duty in accordance with Medical Wituesses Act—viz., 6 and 7 William IV., c. 80—I did not attend. (I refer you to the said Act.) Interference with the body without a coroner's order might have been open to indictment for mutilating it. Remarks on my conduct are only gratuitous insult. The coroner's proceedings were clearly *ultra vires.*

The words on my certificate were (see 37 and 38 Vic., c. 88, see. 20)—

"And that to the best of my knowledge and belief the cause of death was as hereunder written:—

"Phthisis, Exhaustion } From inability to take food."

Irritable glottis, sore throat, difficulty of swallowing, cough, hæmoptysical sputa, vomiting, and wasting of the body: these are evidences of phthisis. I am confidently of opinion that the drink taken in this case had nothing to do with the cause of death. The fatty or nutmeg liver, as well also enlarged, are evidences of phthisis. Phthisis may, and does exist without tubercle in the lungs.

*** Of course, Mr. Turnbull's statements and opinions are entirely his own.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 8.

JAMES PAGET, D.C.L., LL.D., F.R.S., President, in the Chair.

CASE OF SPHACELUS OF THE THYROID GLAND—RECOVERY.

A COMMUNICATION by the late Mr. GEO. G. GASCOYEN was read, in which the details were narrated of a case in which idiopathic inflammation of the neck, occurring in a healthy man aged thirty-eight, was followed by death of the thyroid body, and extensive sloughing of the connective tissue adjoining. The patient made a rapid recovery, and has since expressed no discomfort of any kind from the loss of the gland. The rarity of such cases was alluded to: the few examples which the author had been able to find had been placed on record by various German practitioners. Lebert, in his work on "Diseases of the Thyroid Gland," refers to seven such cases, and gives the particulars of two in which the symptoms were almost identical with those observed in the instance now recorded. Four of these patients recovered, and although destruction of the gland was complete in each of them, as in the case now related, not the slightest inconvenience was caused by its loss—a fact which would lead to the conclusion that in the adult the thyroid body had ceased to possess much functional importance.

Sir JAMES PAGET, in a few kindly and well-chosen words, spoke of the early death of the author, who had endeared himself to all.

NOTES OF THE "BOUTON DE BISKRA" (MYCOSIS CUTIS CHRONICA).

Dr. H. VANDYKE CARTER, writing from Bombay, describes various specimens of the "bouton" which had been most obligingly sent to him by Dr. Edgar Weber, Médecin-Major 3me Bataillon d'Afrique, who is quartered at Biskra. When the author visited Biskra, in the early part of October last (1874), the season proved too early to see much of this disease, but since, he has learnt that one-third of the soldiers and more than one-half of the officers of the battalion were affected. The "boutou" resembles the Delhi boil so well-known in India, and it has also been compared with the Aleppo evil, etc. As regards its nature and structure at an early stage—*i.e.*, a few days after its appearance—the bouton is found to be composed almost entirely of a granulation-tissue, resembling that of which several tumours of the skin are known to be formed. But, in addition, there is the presence of a true parasitic organism, consisting of spheroids and mycelium, which occupies the distended lymphatic vessels in and around the bouton. This mycelium is described as being arranged in open and angular meshes, the free ends of the delicate filaments forming it giving off conidia, which may so multiply and accumulate as to reproduce, as it were, a second microcoid mass not unlike that in which the original filaments probably arose. At a

subsequent stage of the bouton these vegetable organisms seem to disappear, and there are found, besides pale, round, and stellate granulation cells, numerous bright orauge-tinted particles, which are arranged as spherical or ovoid groups almost everywhere disseminated throughout the tissues of the tumour. It is not quite certain what may be the source and true location of these tinted bodies, but the author supposes that they represent a terminal or fructificational stage of the previous fungus, and that they are situated in the ramifications of the lymph-channels of the parts affected. Drawings arranged in three plates accompany this description. In his remarks upon the facts disclosed by microscopic scrutiny, the author points out that the endemic limitation of the bouton de Biskra, its seasonal occurrence, incubation-period, and limited duration; its multiplicity of local manifestation and non-recurrence; its inoculability (of which evidence is furnished in an experiment of Dr. Weber's), and other characters, are all satisfactorily explained on the supposition of the parasitic origin of the affection. Reference is made to a sagacious intimation long since put forth by Virchow, and to the results of inquiries made in India on the Delhi boil; and the author gladly acknowledges the liberality of H.M. Secretary of State for India in Council for permission to visit (amongst other places) the Algerine provinces—a visit which has happily not proved altogether abortive, for the subject of the memoir under consideration is closely allied to like local maladies which largely infest out possessions in the East and West, and which may now be profitably studied in light of the facts herein recorded. The inquiry is not to be prosecuted without considerable pains, and high microscopic powers are required; but that the whole subject is both interesting and important will be readily admitted. The designation of "mycosis cutis" is proposed for the bouton de Biskra, with the addition of "chronica" to indicate a distinction from the more acute similar specific diseases already discriminated.

Mr. Gaskoin thought that Aleppo evil, and probably other furuncular affections, were produced by the external use of tainted water. His belief was especially founded on the boils being mainly found on the head, face, and extremities.

Dr. Tilbury Fox exhibited drawings of allied affections. Dr. V. Carter had, he said, done much to establish the identity of various affections—such as the Caniotica of Crete, the Aleppo evil, and the Delhi boil. Both the Delhi boil and the bouton de Biskra were now acknowledged to be due to something else than water. In the specimens of bouton de Biskra sent over by Dr. Carter he could detect no fungus.

Dr. Thin had also failed to find any fungoid growth, but the specimens were not characteristic. A pupil of Hebra's had gone to Aleppo to examine into the nature of the Aleppo evil, but found that many kinds of inflammation were so called: some were syphilides, lupus, simple boil, eczema, etc. The bouton de Biskra, he thought, was syphilitic. Many of the drawings shown by Dr. T. Fox were of syphilides.

Dr. Tilbury Fox asked Dr. Thin to suspend his judgment for a time.

Dr. Drysdale thought some of the drawings syphilitic, but the experiments with the bouton de Biskra negatived this view.

Mr. Hulke deprecated a too hasty judgment. He and Dr. Bristowe had examined specimens of Madura foot sent over as full of fungi, and could find nothing—no traces of such growth.

EPIDEMIOLOGICAL SOCIETY.

Wednesday, February 8.

Inspector-General Lawson, Vice-President, in the Chair.

Dr. Ballard read a paper "On the Study of Medical Meteorology, especially in its relation to Epidemic Disease." The author began by claiming no more attention to this interesting and very important subject than what may be properly accorded to one who had spent some time in thinking out some of the problems that professional duties have brought under his own notice, and which must have occurred to the minds of many he now wished to address. Let us (said the author) put our cogitations together, and begin with a confession of our ignorance. Can it be said that our acquaintance with the bearings of meteorology upon public health, and especially upon the origin, spread, and decline of epidemic maladies, has advanced commensurately with our acquaintance with other branches of etiological science? Has even a fair proportion of precise etiological inquiry been turned in this direction? Influenza, as being less spread by direct contagion than some allied diseases, might be taken as the type of an epidemic in which meteorological influences are most likely to be traced; its outbreaks have been preceded and accompanied by remarkable meteorological conditions with which it must have etiological relations: what these relations are has yet to be determined. In advancing this inquiry for influenza we shall be unravelling the complication of questions which still surrounds the epidemicity of other diseases, such as cholera, the specific fevers, and the epizootics. The comparative infrequency of influenza may turn us to the more common maladies, which spread among us at short cyclical periods, for labours which will yield fruits of earlier maturity and of scarcely less importance. Materials are afforded by the pulmonary diseases of winter, the diarrhœa of summer, by whooping-cough, measles, scarlet fever, and continued fevers, to every practitioner in the kingdom who pleases to study the meteorological conditions under which they occur. The materials at hand for this study are meteorological reports that would require a Humboldt to generalise, and a registration of deaths which, thanks to the Registrar-General (and specially to Dr. Farr), helps us a great step onwards. A registration of deaths only, cannot give us satisfactory data. Death is only one phenomenon in the course of disease, and that an uncertain one; it is also a very variable one when we compare one epidemic of disease with another, or the same epidemic at different parts of its course. The Registrar-General has familiarised the public mind with the fact that cold weather increases the deaths from pulmonary diseases, and that the heats of summer are associated with greatly increased mortality from infantile diarrhœa; yet we are in ignorance why, in years or months of similar winter cold or summer heat, the mortality from these diseases differs as widely as it is known to do. For the satisfactory solution of the great questions of medical meteorology now awaiting inquiry, something more is wanted than records of mortality. What we sorely need is a record of sickness standing upon some such broad basis as are our records of mortality. The records kept by our poor-law medical officers and our public medical institutions supply some information, but they are not universally kept, nor have the more perfect of them been utilised to the extent they deserve. Our first want is as perfect a system of registration of sickness as is practicable under existing conditions of medical knowledge. Towards the attainment of this the medical officers of health throughout the kingdom might contribute most valuable aid. An acquaintance with the amount and character of prevailing sickness is essential to them for the due and efficient exercise of their office: were the information thus gained regularly collected and utilised, the registration of public sickness would be greatly encouraged. The Epidemiological Society, as was triumphantly shown by its president in his opening address, has already been the pioneer of great practical reforms. Here is an opportunity of advancing etiological science into an almost unexplored field. Your already organised foreign correspondences, by collecting records of disease both at home and abroad, would be of great service. Our home epidemics neither began nor will they stop with us; moreover, to draw inferences from their relation to local meteorological conditions alone might, and probably would, lead to serious mistakes. A systematic collection of facts would supply an existing want: an expositor of them is sure to arise; meanwhile you will have shown the way to overcome the first obstacle to a true medical meteorology. The collection of sickness statistics might be set about somewhat in the way formerly suggested by this Society to the Poor-law Board. It is not for me now to state further the way in which it may be best to act: the subject has occupied the thoughts of many men more fitted for consultation upon it than myself. All I desire to say now is, that the registration should include all cases, both surgical and medical, and not be limited to diseases generally known to prevail epidemically; and for this reason—namely, that certain atmospheric conditions may be found so to affect the human constitution as to lessen its power of resistance to *all* causes of disease. To exclude surgical diseases would be to introduce an error, probably of uniform magnitude, and to prevent our noticing how far surgical diseases are influenced, equally with those called medical, by conditions of weather. The final object of this study, apart from the practical applications of the truths to be evolved, is not merely to ascertain the fact that such and

such conditions of atmosphere are favourable or the reverse to epidemic extensions, but how it is, and why it is, that such is the case. We may say with certainty that season influences in some way the spread of epidemics. I have shown, in an analysis of some thousands of cases recorded in my old health-district at Islington, that during twelve years, while measles, for instance, occurred with regularity as an epidemic once in two years, the greater proportion of cases, without reference to fatality, happened in the months of May, June, and July; and that another like tendency to epidemic spread was exhibited in the months of November, December, and January. Again, as regards scarlatina, while the facts show very strongly a diminution in frequency about the month of March, there was a slow and steady increase to June, and a further increase in the months of July; and that the largest number of cases occurred in the months of September, October, and November. The fatality of this disease, at its minimum in the summer, is greatest towards the end of autumn, while the number of cases is still very high; yet the mortality tables come too late to serve as an indication of the prevalence of the disease. Temperature seemed to have some influence on the spread of this disease, for while a temperature of 60° seemed to favour it, a mean temperature below 53° tended to epidemic arrest. Small-pox, in my Islington experience, presented the smallest number of cases in September and October; the largest in March, April, and May. This is clearly a disease the extension of which is promoted by cold weather, and checked by hot weather. Very different is this from popular opinion, and from opinion sometimes given medically. It is not true, as is often supposed, that all zymotic diseases are promoted by hot weather, and checked by cold weather. My own observations are not relied on for the settlement of the questions raised. Those that may be absolutely true for Islington might not be so for the whole of London; still less for the whole of England, or for other countries. If they show that season and atmospheric conditions do check or promote the epidemic extension of disease in a definite manner, the next question will be—How do they operate? In considering this, we have to bear in mind that conditions of weather may act indirectly—by their influence on the functions of the body, preparing it to receive the contagion; by leading people out of doors, where they mix with others; or by keeping them within doors and huddled together; or, finally, by their influence on the contagious or morbid product which is the agent of contagion. We have to consider in which, or whether in all of these ways, atmospheric conditions operate in promoting or checking each form of contagious epidemic disease; and probably all these modes of operation may be ascertained in respect of diseases not regarded as contagious. We have further to ascertain what influence is exerted by meteorological conditions in preparing the way for epidemic extension. What is the reason of the cyclical recurrence of epidemics? There must also be a reason why contagious diseases fall into abeyance as epidemics for a period more or less decided in duration, but differing in different diseases. And what is it that determines the mildness or fatality of epidemics when they do occur? All these questions have to be considered from a meteorological point of view. It is from this side we may be nearest an answer to some of them. Let us keep *à priori* reasoning within strict limits, and not be blinded, by the special study in which we engage, to the fact that there may be other influences, not meteorological, which govern the period of origin and decline of epidemics. I will merely mention the influence of acclimatisation in checking the spread of an epidemic that has lasted some time, when contagious foci must have multiplied. Let us recall the epidemic law of Dr. Farr, so strikingly illustrated by the cattle plague of 1865, when the decline of the epidemic was foretold while the disease was still increasing, because that increase was in a decreasing ratio. Let us not forget, also, to inquire under what circumstances and to what extent it is true that the intensity of the operation of a contagious principle may be diminished by repeated transmissions through the bodies of men and animals.

Dr. Buchanan, in cordially supporting the vote of thanks accorded to Dr. Ballard for his very suggestive and important paper, said that one of the chief difficulties in appreciating the significance of meteorological conditions in their bearing on epidemics lay in our ignorance of other conditions that might at the same time be influencing epidemic prevalence. Some of these other conditions were even antecedent to questions such as meteorology. We ought to know, respecting a given disease apt to occur in cycles, how far it was to be expected, on simply arithmetical grounds, to be prevalent in a particular community after any period of quiescence. Clearly its times of epidemic prevalence might not be the same for different communities. To take the case of an infection that chiefly attacked children of a few years old, and attacked the individual once only, the period of epidemic cycle would certainly be influenced both by the relative facilities of conveyance of infection from one child to another, and also by the number of susceptible children accumulating in one community as compared with another community. It was not until such considerations as these had been eliminated that the operation of atmospheric and telluric conditions in determining an epidemic could be investigated. Then, again, as factors of an epidemic, there probably went a number of other conditions besides meteorological conditions, of the influence—of the existence, even—of which we were at present ignorant; yet it was not until we knew the share to be assigned to these other conditions in the production of the result that we could hope to ascribe to meteorological differences their proper share in the production of an epidemic. Granting the fullest share of importance, however, to atmospheric and allied conditions, there remained for the practical etiologist the difficulty of distinguishing between the direct and the indirect methods by which these might operate to determine epidemicity. In the case of typhus, for instance, it could not be doubted that cold weather operated to cause an epidemic, less by reason of any direct influence of cold on the powers of the fever-poison than by reason of its indirect influence in causing people to huddle together under circumstances which favoured the communication of the contagion from one to another. Similarly, as regards other diseases, differences of weather might produce different facilities of intercourse among members of a community, resulting in different opportunities for the meeting of infected and susceptible people. True, these were in a sense meteorological conditions affecting the spread of epidemics; but they required to be distinguished from meteorological conditions that might operate directly upon the material of disease itself. He did not pretend that there were no conditions of the latter kind; but he wished to point out that they could not be satisfactorily investigated until the commonplace indirect operation of such conditions in diffusing and intensifying contagion had been eliminated. Dr. Ballard's paper afforded most important data upon which further research should be based; and if all meteorological students had Dr. Ballard's caution in using their facts, the observations now made would be superfluous. But many people—and some doctors among them—appeared to think that when they had hit on some meteorological concurrence with an epidemic, they had attained to a knowledge of the complete and ultimate "cause" of the outbreak of disease.

Dr. Walter Dickson insisted on the importance of some such registration of sickness as Dr. Ballard had proposed. It would indicate the epidemic prevalence of many diseases not commonly regarded as epidemic, representing a large amount of sickness not of so serious a nature as to appear on the register of deaths. Besides epidemics of boils, his own experience showed that there were times and seasons which caused a predisposition not only to many local diseases met with in different parts of the world, but also favoured the incidence of gout in those liable to such attacks.

Dr. Chas. E. Saunders remarked that while the weather was found to have an influence on particular diseases, its influence was also very marked on the course of disease taken in the aggregate. In the district to which he was health officer, as elsewhere, very few deaths from any or from all causes were recorded in some weeks, while in others many deaths occurred from quite different causes. It was known that a sudden fall of temperature determined deaths from phthisis and other chronic pulmonary diseases. In other cases meteorology might afford some explanation why, of those already near death, so many should succumb in some particular week.

Dr. Squire called attention to the fact mentioned by Dr. Ballard, that the prevalence of diseases most influenced by weather is not determined by it. Diarrhœa was more common in some hot seasons than in others. It has a closer dependence on the hot weather than on the fruit then plentiful, for it is not the fruit-eating part of the community that suffer, but a specific cause was also traceable. So, in cold weather, though bronchitis followed very closely upon depressions of

temperature, pneumonia and croup did not vary in correspondence with this, but with quite other conditions, as he had pointed out ten years ago. Dr. Ballard had previously shown for Islington that sore-throats and some catarrhal affections prevailed most, not with the cold, fresh north wind, but with southerly and south-easterly winds coming to Islington from over the crowded parts of London.

Inspector-General Lawson, in summing up the debate, remarked that meteorology had received different significations; it ought not only to include the sensible qualities of the air, but to imply everything connected with it, including many elements now imperfectly known. It is difficult to estimate all that atmospheric temperature, moisture, and pressure can effect in the human body. Moist, damp weather may double the quantity of kidney secretion. In hot, dry climates evaporation from the skin and tendency to internal congestions contribute as much to pneumonia as any degree of cold in higher latitudes can do. The influence of season, too, is something more than one of mere temperature. The whole meeting agrees with Dr. Ballard in the multiplicity of ways in which meteorology bears on the questions we are interested in; and, if meteorology is not everything in etiology, yet we must agree with him that the many relations of meteorology to diseases have not been sufficiently studied.

CLINICAL SOCIETY.

Friday, February 11.

Charles Murchison, M.D., LL.D., F.R.S., Vice-President, in the Chair.

Case of Acute Œdema of the Larynx.

Mr. Pugin Thornton related the case of a cabman who had been attacked with acute œdema of the larynx, and remarked that this was the disease which, followed by œdema of the lungs, proved fatal to the late Dr. John Murray. The cabman had gone to bed on a Saturday night at nine o'clock perfectly well, although overfatigued from his work. Twice in the first two hours he had been obliged to change his shirt, waking up with it wet through with perspiration. He had then slept till the morning, when his breathing was slightly oppressed, and at breakfast he found swallowing difficult. Both respiration and deglutition gradually became worse, and on Wednesday morning he was sent by Mr. W. H. Evans, of South Hampstead, to Mr. Thornton, with the request that he would admit him, if possible, into the Hospital for Diseases of the Throat. On examination, his epiglottis was seen to be an œdematous mass, and the arytenoid cartilages were observed to bulge out in the same œdematous condition. Mr. Thornton immediately very freely scarified these parts, and made the man encourage the bleeding by gargling as forcibly as he could with hot water. The scarification was repeated in about ten minutes. His breathing then, which but a short time previously had been extremely laboured, improved rapidly, and his face soon lost all lividity. He was able to take some milk from a spoon, and in hour from that time, after being scarified again, he drank from a cup, having for many hours been unable to swallow the smallest quantity of fluid. From this time he made an uninterrupted recovery. On the first day only after his admission into the hospital did his urine present any albumen. The cause of the œdema was undoubtedly due to overwork, combined with the effects of extreme cold; for, during the fortnight before the attack, he had been day and night obliged to drive his cab with snow on the ground the greater part of the time, and getting only from four to five hours' sleep out of the twenty-four. He had never had syphilis, and was a temperate man. Mr. Thornton remarked that œdema of the larynx might arise in a mucous membrane perfectly free from inflammation, and that it did not, as is stated by some writers, always follow acute congestion. He instanced two cases bearing out this fact—one being that of a patient whom he had seen two hours after the commencement of the œdema in one arytenoid cartilage and at the root of the epiglottis; and the other that of a medical man whom he had attended a fortnight previously, in whom, when he first saw him, the œdema had begun in the left arytenoid cartilage, vocal cord, and ventricular band of the same side. Mr. Thornton suggested that this disease should be classed in future in medical works under the heading of "Acute Œdema of the Larynx," and not ranged under "Acute Laryngitis," as heretofore.

The Chairman thought it was a question how far overwork was a cause in such cases. His own opinion tended against this view. He thought the chill quite enough to produce such results.

Dr. Cayley asked what the temperature was. He hardly understood how it was possible to have an acute local œdema without inflammation or something tending thereto.

The Chairman said that œdema of the larynx not uncommonly occurs in certain diseases with the characters of blood-poisoning, as in typhus. In these cases there is high temperature and a tendency to death. He had often, however, been able to save such patients by local interference.

Mr. T. Norton said œdema might occur with only slight inflammation, as from the local changes in phthisis. This, however, was only slight.

Mr. Willett had most frequently seen œdema of the larynx from erysipelas of the head and face.

Mr. P. Thornton said that in the one case there was only a single degree of elevation of temperature, in the other it was higher. In his paper he referred to acute simple œdema alone, and to no other form of the malady.

Case of Reduction of Partial Dislocation of the Astragalus of long standing.

Mr. George Brown read a paper on a case as above. The patient, Clara P., aged sixteen years, accidentally slipped down a step, about two weeks before Easter, 1874, and twisted her left foot. Previous to this she had nothing the matter with either of her feet or ankle-joints, except that she was always somewhat flat-footed. The foot was very painful after the accident, but as it was thought to be nothing more than a "sprain," no medical advice was sought. On Easter Monday she took a long walk, after which she suffered great pain of the foot, and there was, the mother states, a decided swelling on its inner side. Next day a surgeon was consulted, who said that there was nothing the matter with the foot beyond weakness of the ankle-joint due to constitutional causes, and that its misshapen condition was in consequence of her being flat-footed. He did not examine the sound foot or compare it with the other. Several months elapsed; meantime the foot gradually grew worse, the deformity became more marked, and the difficulty of walking greater. Towards the end of the year she was scarcely able to walk without assistance. Generally she leant on another person's arm when she walked out, but she spent the greater portion of her time either sitting or lying down. Often the pain of the foot was so great as to prevent her sleeping at night. Mr. Brown first saw the patient on January 9, 1875. On comparing the two feet it was at once apparent that there was displacement of the astragalus forwards and inwards. The hollow which should exist between the internal malleolus and the scaphoid tubercle was entirely obliterated by the head of the astragalus, which, at this point, was much more prominent than either of the two bony processes before mentioned. Over this projection the skin was tightly stretched. In front of the ankle-joint, and on its outer aspect, where the head of the astragalus is usually felt, there was a considerable depression. The tendon of the extensor proprius pollicis and the long extensor tendons of the toes were much contracted, and the outer side of the foot was drawn upwards. The patient was unable to place the outer side of the foot on the ground, and in walking the whole weight of the body was borne on its inner side. Power of extension or flexion of the foot was almost entirely lost. Reduction was effected in the following manner:—The leg being firmly held by an assistant, Mr. Brown grasped the foot near the toes with the right hand, and forcibly extended it as much as possible. At the same time, firm pressure was made on the projecting head of the astragalus with the left hand, which was continued until the bone slipped into its natural position with a distinct snap. The two feet were now, to all appearance, perfectly symmetrical. No splint being at hand, a pad and bandage only were applied. On examining the foot next day, Mr. Brown found that the bone had again slipped out of place. Reduction was again effected, and a well-padded side-splint with foot-piece applied to the inner side. The splint was kept on for seven weeks; after which the patient was permitted to walk with assistance. The patient made a slow recovery, but she has now—thirteen months after the reduction of the dislocation—perfect use of the joint, and can walk

long distances without inconvenience. Mr. Brown was of opinion that when the patient twisted her foot before Easter, 1874, some fibres of the internal lateral ligament of the ankle-joint and the calcaneo-scaphoid ligament were ruptured. The head of the astragalus having thus lost its chief internal support, it was gradually forced forwards and inwards by the weight of the body, until the deformity became very marked and the ankle-joint almost useless. Mr. Brown said that the case was of interest, not only on account of its comparative rarity, but as being one of a class of cases that so frequently fall into the hands of "bone-setters," and by which these charlatans sometimes gain a great deal of credit at the expense of the profession.

Mr. Pick asked if any other apparatus than a simple side-splint had been used. He had been inclined to think there was here only such deformity as is sometimes met with in exaggerated cases of flat-foot, but, after examining the patient, he could only adopt Mr. Brown's view of the case. It was curious that the patient could have got about with such displacement of the bones. Probably the ligaments had yielded gradually.

Mr. Willett said there could be no doubt of the success of the case. Was the astragalus still properly attached to the calcis when the deformity was greatest?

Mr. Norton thought that in such a case there would surely be some absorption, and consequent deformity.

Mr. Brown, in reply, said he used a side splint merely. He was unable to give the exact relations to the os calcis. The bone was not fully displaced till a late period, and hence absorption could scarcely be expected to have taken place.

Scirrhus of Mamma.

Mr. Kesteven sent a note, giving the sequel of a case of scirrhus of the breast reported in the sixth volume of the Society's *Transactions* (April 23, 1873). After two operations no recurrence of the disease had taken place for six years, and the case was regarded as one of complete cure, and seemed to support the view of the local nature of cancer. The subsequent history of the patient did not, however, bear out these opinions; for the patient died in the latter part of 1875, with cancer of the rectum and osteo-sarcoma of the femur.

Dr. Cayley said cancer of the rectum was very rare as a secondary affection after cancer of the breast.

Dr. Coupland said that in the Middlesex records there was no such instance to be found. Recurrence might take place as much as seven years after complete removal.

Dr. Greenfield thought it important to have some detailed account of the cure, especially as to the condition of the glands. The growth in the rectum might be secondary to an infiltration around it. He referred to a case which lasted seven years.

The Chairman said that long periods might elapse after removal before renewal, especially in malignant non-cancerous tumours. He remembered one case in which nine years thus elapsed. This was a spindle-celled sarcoma removed from the eye and returning in the liver.

Purpura Rheumatica.

Mr. H. G. Trend read notes of this case. The patient, a youth seventeen years of age, had been out of health for some months. On April 6, while engaged in cellar-work, a cork flew out of a soda-water bottle, and inflicted a deep incised wound, about two inches and a half in length, on the outer part of the right forearm, which did not heal for a month. On May 23 he was attacked by well-marked tonsillitis; upon the subsidence of which he was seized with painful swellings of several joints, preceded by a distant rigor, and accompanied by purpuric patches upon the legs and arms. There was extensive sloughing of the upper portion of the left arm. After a protracted illness he got quite well. The treatment consisted in keeping the patient well up with plenty of good nourishment, moderate stimulation, and perchloride of iron.

Dr. Murchison said he had seen a similar case, but without any antecedent injury. What was the condition of the joints here? Were there hæmorrhages from the mucous membrane? Did the purpuric spots protrude above the skin? His patient was a little boy who had a swollen knee, apparently due to rheumatism, but this did not spread. There was extensive extravasation of blood all over the body, the spots being elevated. There was also hæmorrhage from the bowels, gums, and kidneys. The bowels also became obstructed, he supposed from an extravasation into their substance. There was little fever, and the child did well.

Dr. A. S. Stewart said purpuric eruptions in rheumatism were not very rare. They appeared from time to time—for no very particular reason that he could make out. He had seen them common for months together. He had used to call them erythema rheumaticæ. They varied much in character. In one the eruption was thought to be syphilitic or mercurial; but no mercury had been given. The gums had been bad from the beginning. In another there were purpuric spots and swollen joints. He used lemon-juice freely, and both did well.

Dr. Greenfield thought the phenomena really scorbutic. Was the heart affected? Scurvy often occurred where not suspected. In one case of this kind it turned out that the diet had consisted almost entirely of salt fish.

Mr. G. Brown referred to the case of an infant with a bad knee which he had attended. Ultimately he had to amputate. The child was very low, and in two or three days a large hæmorrhagic spot appeared on the abdomen. The child was still under treatment, but was doing well.

Mr. Leach said they should not jump at conclusions as to scurvy. The boy had had plenty of potatoes, though he avoided green food. Scurvy almost always attacked the lower extremities. There need be no hæmorrhage from mucous membranes.

Mr. Trend, in reply, said the spots were not raised, and there was no hæmorrhage beyond the dysenteric motions. The pains were erratic, and only the wrists in the upper extremities were affected. The arm affected was not the injured one. There was no cardiac affection. There was considerable delirium for forty-eight hours.

OBITUARY.

RICHARD KING, M.D., F.R.C.S., L.S.A., M.A.T., etc.

We regret to have to announce the death of Dr. Richard King, the eminent physician and Polar traveller, who died on Friday last. He was well known as the companion of Admiral Sir Geo. Buck in his journey to the North Pole in 1833, '34, and '35. He was the founder of the Ethnological Society, and instituted the study of Man both in England and America. He was likewise an extensive author; his most prominent works were "Franklin Expedition from First to Last," "Narrative of a Journey to the Shores of the Arctic Ocean," "History of the Esquimaux," "March of Death in St. Giles" (in which he advocates his Gaseous Theory of Cholera Epidemic), and "Cause of Death in the Stillborn." He edited for some time the *Statistical Journal* and the *Ethnological Journal*, and was a copious contributor to the *Medical Times* and the *Anthropological Review*.

GABRIEL ANDRAL.

This celebrated physician died on the 13th inst., in consequence of a bronchitis that he had contracted during a visit to Paris, and which speedily put on an alarming aspect and proved fatal. He expired in full possession of his intellectual powers, and with all the serenity habitual to him, in the full expectation of the blessings of hereafter. The son of a distinguished member of the profession, formerly physician to Murat, Gabriel Andral was born in Paris on November 6, 1797, and received his doctor's degree in 1821. After a brilliant *concours* he was elected an *agrégé* of the Faculty in 1823; and his private courses on Pathology having soon attained great notoriety for him, he was appointed to the chair of Hygiene in 1828. This, in 1830, he exchanged for that of Internal Pathology, which he held until 1839, when he succeeded Broussais as Professor of General Pathology and Therapeutics. In all these important positions he obtained a most remarkable popularity, which was due to his methodical clearness of exposition, the precision and extent of his knowledge, his great earnestness of purpose, his sound judgment and well-balanced mind enabling him to avoid the hazardous theories so prevalent at that epoch, while he was ever open to the perception of any new methods of investigation. Discountenancing alike the exaggerations of Broussaism and of Brownism, he next to Laennec himself did most to render auscultation a reliable and invaluable means of diagnosis. A passionate love of truth and good faith characterised all he did, and conferred upon him a weight and authority which he retained till the last. The character of his teaching is wel

pointed out by M. Amédée Latour, one of his most devoted and admiring pupils, who ten years since wrote as follows :—

"Some generations of students have succeeded each other who have never heard Professor Andral's magistral voice, and have never been able to profit by that teaching which was so complete, so elevated, and so philosophical, the loss of which has proved a true calamity for the Faculty. For he it was who first rekindled—amidst indifference or hostility—the taste for healthy erudition, history, and doctrinal studies, which he so well knew how to adapt to the progress derived from modern research. M. Andral has been, beyond all contradiction, the greatest professor of the Faculty of Paris. Long before the period of decline he relinquished his celebrated chair of Pathology and Therapeutics, from which he had developed the most vast plan that since the time of Galen has ever been presented for the study of medical science."

The enthusiasm and respect manifested for the Professor by his auditors was re-echoed by the colleagues of the great Practitioner. A member of the Academy of Medicine from so early a period as 1824, and of the Academy of Sciences since 1843, he was always received by both bodies with all the respect and deference which his well-known high principles and rectitude of conduct, and his acknowledged position as head of the profession, justly entitled him to. The only fault found with him in the Academy of Medicine was the rarity of his appearance there ; and we do not remember that he ever took part in any of the famous scientific debates—or, as he probably would regard them, hardly sufficiently scientific debates—that have distinguished that body. The general estimation in which he was held to the last, when so many who could have appreciated him had passed away before him, may be judged of by the vast concourse of from 1000 to 1100 of the *élite* in the political, literary, and scientific world which assembled at the funeral ceremony performed in the church previously to his body being sent away for interment at his residence in the country. No oration was pronounced over his remains.

Very early in life Andral was married to the daughter of the celebrated statesman Royer-Collard, by whom he had one son, M. Paul Andral, who holds a most distinguished position as Vice-President of the Conseil d'État, and who has often rendered very valuable legal services to the medical profession. It was owing to the prolonged illness of his wife that Andral, in the full blaze of his fame as a practitioner and professor, abandoned all the pursuits of his hitherto busy life, and went to live in the completest retirement in the village of Châteauvieux, in Loir-et-Cher. Although, however, from that time ceasing to contribute actively to the progress of science, he always retained a vivid interest in its advancement and in that of its cultivators, and was a frequent visitor to the Academy of Sciences. Nor did he, indeed, wholly abandon the practice of the art which he had once so successfully pursued ; and a large circle of his poorer neighbours, often at considerable distances, were indebted for his benevolent ministrations.

Although so little has been heard for so many years of Andral beyond the circles within which he moved that most persons believed that he had died long since, yet none who are at all conversant with the history and present position of medical science and practice can doubt that the work he has done yet lives. The books he published constituted epochs, and some of them can never become obsolete. His "Clinique Médicale" stands alone ; and whether we consider the philosophical and truthful spirit which pervades it, the acumen which it exhibits, or the vast body of carefully observed and clearly recited facts which it contains, we cannot but regard it as a rich treasure which yet will profit many generations. There have been plenty of "Cliniques Médicales" since, but none to be compared with this. What potent consequences, too, have resulted from the researches on hæmatology conducted by himself and Prof. Gavarret (still, we are happy to say, alive and actively employed), now nearly forty years ago,—resuscitating a humoral pathology in a rational and scientific form, and anticipating conclusions since derived from more improved appliances and more elaborate analyses. Other opportunities of exhibiting more in detail what Andral has done for medical science will before long offer themselves, and in the meantime we may conclude by citing the following passage from M. De Ranse's notice of his death :—

"Among the masters whom the generations who have succeeded each other from 1825 to our own days have learned to appreciate, to love, and to respect, M. Andral has occupied the first rank ; and even those who have only come on to the scene since his retirement from active life have none the less undergone the influence—by a kind of tradition, if not directly through himself—which he has never ceased to exercise. This influence has not remained limited to the men and the things of our own country. M. Andral was at the head of the French school at an epoch when this school had no rival, and when Paris was the general resort of all foreigners who were desirous of perfecting and completing their studies and of discovering new horizons. Thus was the authority of his teachings promptly conveyed to the schools of other countries, and we have no fear in saying that a universal homage, without any distinction of nationality, will be rendered to the memory of him who will remain one of the medical glories of our age."

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following are the names of candidates for the College licence, who, having conformed to the by-laws and regulations, and passed the required examinations, were proposed to the College to have licences to practise Physic granted to them at the Meeting on February 22 :—

Baily, Frederic William, St. Leonard's.
Baker, Albert de Winter, 27, Trinity-street, S.E.
Dickinson, William Gilbert, 2, Belle Vue, N.W.
Erith, William Edward Norton, 31, Yonge-park, N.
Joseph, Sydney Westbrook Iorwerth, St. Leonard's.
Lacy, Alexander Gairdner, Guy's Hospital, S.E.
Murphy, Henry Howard, 8, Westgate-terrace, S.W.
Roughton, Walter, 42, Hammersmith-grove, W.
Wilson, Arthur Huelin, St. George's Hospital, S.W.

The following candidates, having passed in Medicine and Midwifery, will receive the College licence on obtaining a qualification in Surgery recognised by this College :—

Pearse, Joshua Sydney, University Hospital, W.C.
Sloman, Herbert, Farnham.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 17 :—

Jameson, Leander Starr, University College Hospital.
Walker, William, Albert-street, Camden Town.

The following gentlemen also on the same day passed their primary professional examination :—

Lawson, Thomas Cornelius, University College.
Smith, Gerard Henry, St. Bartholomew's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—W. L. Powell, Staff Surgeon to the *Thetis ;* J. W. Fisher, Staff Surgeon, additional, to the *Hercules*, for the *Cruiser ;* J. S. Whitney, Staff Surgeon, to the *Iron Duke ;* N. T. Connolly, Staff Surgeon, to the *Duncan*, for the Marine Depôt, Walmer ; Michael Kearney, M.D., Surgeon, to the *Orwell*, when recommissioned ; William Harris Lloyd, Staff Surgeon to the *Fisgard ;* John M'Adam, Surgeon, to the *Shelduke ;* James Martin, Surgeon, to the *Cockatrice ;* William Dudley Wodsworth, Surgeon, to the *Pallas ;* William Henry Colahan, M.D., Surgeon, to the *Lively ;* Scudamore Kydley Powell, Surgeon, to the *Royal Adelaide.*

BIRTHS.

GLOVER.—On February 21, at 33, Compton-terrace, Highbury, the wife of James Grey Glover, M.D., of a son.

GREENHILL.—On January 28, at Bermuda, the wife of Joseph Ridge Greenhill, F.R.C.S. Eng., Army Medical Department, of a daughter.

PURVIS.—On February 15, at Royal Hill, Greenwich, the wife of John Prior Purvis, M.R.C.S., of a son.

RANKING.—On February 15, at Mount Ephraim-road, Tunbridge Wells, the wife of John E. Ranking, B.A., M.R.C.S., of a son.

ROBERTSON.—On January 20, at The Friarage, Penrith, Cumberland, the wife of James D. Robertson, M.D., of a son.

SEALY.—On February 13, at Oak Hill House, Weybridge, the wife of George J. Sealy, M.D., of a son.

WALL.—On February 15, at 2, Burlington-road, St. Stephen's-square, W., the wife of Reginald Bligh Wall, M.R.C.S., of a daughter.

WHITE.—On February 17, at Ardwick and Ancoats Dispensary, Manchester, the wife of Dr. J. C. White, of a daughter.

MARRIAGES.

A'BECKETT—WINSLOW.—On February 17, at St. James's, Spanish-place, Arthur William, youngest surviving son of the late Gilbert Abbott A'Beckett, Esq., to Susannah Frances, eldest daughter of the late Forbes Winslow, M.D., D.C.L.

JONES—SHAW.—On February 10, at Christ Church, Attercliffe, P. W. Jones, L.R.C.P., M.R.C.S. Eng., of Enfield, to Helen Shaw, daughter of the late John Shaw, Esq., of Attercliffe, Yorkshire.

LILLEY—BURMESTER.—On February 17, at the Church of St. Mary Magdalene, St. Leonard's-on-Sea, James Douglas, son of the late James Lilley, F.R.C.S. Edin., and formerly Acting Governor of H.M. Possessions on the Gold Coast, to Flora Beresford, eldest daughter of the late J. W. Burmester, Esq., of West Hill, Wandsworth, and niece of the Rev. George Burmester, Rector of Little Oakley, near Harwich.

MITCHELL—LEE.—On February 22, at St. James's Church, Piccadilly, Arthur Williams, younger son of William Stair Mitchell, of Old Bond-street and Mitcham, to Clarisse Isabelle (Clare), youngest daughter of Robert Lee, M.D., late of 4, Savile-row.

PALMER—SAUNDERS.—On February 17, at the Church of the Annunciation, Chislehurst, Thomas Palmer, of Homeleigh, eldest son of Wm. Palmer, Esq., of Elmstead Court, to Julia, eldest daughter of W. Sedgwick Saunders, M.D., F.S.A., of Elmstead Wood, Chislehurst.

PARKER—SMITH.—On February 16, at St. John's Episcopal Church, Edinburgh, Charles Arundel Parker, M.B., C.M., son of the late Captain C. A. Parker, R.M., to Annie Mary Huesca, eldest daughter of John Smith, M.D., F.R.C.S., 11, Wemyss-place, Edinburgh.

POTTS—HERON.—On February 18, in Dublin, Algernon, younger son of Henry Potts, Esq., of Glanrafon, Denbighshire, and the Westergate House, Chester, to Augusta H., third daughter of the late William Heron, M.D., F.R.C.S., of Upper Baggot-street, Dublin.

DEATHS.

EVANS, SARAH MARIA, beloved wife of William Evans, M.D., of Belsize-park, Hampstead, N.W. (formerly of Calcutta), of congestion of the lungs, on February 20.

GIBB, Sir GEORGE DUNCAN, Bart, M.A., M.D., L.L.D., F.R.G.S., of Falkland and Fife, at 1, Bryanston-street, Portman-square, on February 16, in his 53rd year.

GREENE, J. CLINTON, Captain Royal Artillery, eldest son of the late John Greene, M.D., of Paris, drowned in the collision in the Channel between the *Franconia* and the *Strathclyde*, on February 17; and at the same time and place, Lizzie, his wife, the fondly loved and deeply lamented daughter of Mrs. George D. Boucicault, of Cromwell-road, South Kensington.

HAMILTON, LILIAS KATHARINE, eldest child of Archibald Hamilton, M.D., at Oakthorpe, Windermere, on February 14, aged 7 years.

HUMFREY, ALEXANDER, Surgeon-Major 98th Regiment, second son of the late Lieutenant-Colonel Humfrey, of Caranacor, co. Donegal, Ireland, on February 8.

ILIFF, WILLIAM TIFFIN, M.D., L.S.A., F.L.S., at Epsom, after a long illness, on February 17, in his 78th year.

MATTHEWS, CATHARINE, wife of John Matthews, M.D., of 4, Mylne-street, Myddelton-square, E.C., on February 19, aged 77, of bronchitis.

NICOLL, SARAH FOY, the beloved wife of Charles R. Nicoll, M.D., late Surgeon-Major Grenadier Guards, and daughter of the late Sir Alexander Morison, of Johnsburn, Midlothian, M.B., at the Charterhouse, on February 21.

SMITH, ROBERT MAIDSTONE, M.A., M.D. Ch. Ch. Oxon., at Bathampton House, near Bath, after a few days' illness, on February 14, in his 66th year.

STEELE, LAVINIA HANNAH, wife of J. D. Steele, L.F.P.S. Glasg., of H.M.'s Convict Prison, at Knaphill, Woking, Surrey, on February 20.

TURNER, JOHN, M.D., at Northampton, on February 15, aged 36.

WAYMOUTH, ALBERT, M.R.C.S. Eng., L.S.A., youngest son of the late John Waymouth, Esq., of Stoke Devonport, at Lichfield, on February 17, aged 32.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—Assistant Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, on or before February 26.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Surgical Officer. Candidates must be M.R.C.S. Applications, with testimonials, to W. T. Grant, House-Governor, on or before February 28.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Honorary Physician. Candidates must be M.R.C.P. Applications, with testimonials, to Mr. F. Bailey, Secretary, on or before March 15.

LINCOLN LUNATIC HOSPITAL.—Resident Medical Superintendent. Candidates must be duly qualified in medicine and surgery. Applications, with testimonials, to the Governors of the Lincoln Lunatic Hospital, under cover to Mr. R. Hall, 38, Silver-street, Lincoln, on or before March 11.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY, AND LUNATIC ASYLUM.—Honorary Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before March 25.

NORTH LONDON CONSUMPTION HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 216, Tottenham-court-road, W., on or before March 1.

ODD-FELLOWS' DISPENSARY, HULL.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—Surgeon. Applications, with testimonials, to the Secretary, on or before Feb. 28.

STAMFORD AND RUTLAND INFIRMARY.—House-Surgeon and Secretary. Candidates must be duly qualified and registered. Applications, with testimonials, to the Chairman of the Managing Committee, on or before February 29.

TIVERTON INFIRMARY AND DISPENSARY.—House-Surgeon and Dispenser. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, Mr. T. B. Patterson, Tiverton.

UNIVERSITY OF GLASGOW.—Additional Examiners in Medicine. Applications, with testimonials, to Dr. Anderson Kirkwood, on or before March 1. (For further particulars, see advertisement.)

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Leek Union.—The Endon District is vacant; area 10,360; population 2529; salary £20 per annum.

Narberth Union.—The Begelley District is vacant; population 5537; salary £35 per annum.

APPOINTMENTS.

Bellingham Union.—Daniel Heagerty, L.R.C.P., L.R.C.S., to the Second District.

Bolton Union.—Wm. D. Bowkett, M.R.C.S. Eng., L.S.A., as Resident Assistant Medical Officer at the Workhouse.

Chorlton Union.—George Rice, B.M. and M.C. Edin., to the Workhouse.

Colchester Union.—Wm. A. Maybury, M.D., M.C., L.S.A., M.R.C.S., to the First District.

Coventry City.—Alfred Hill, M.D., as Analyst.

Cricklade and Wootton Bassett Union.—Theophilus R. B. Parker, M.D. St. And., M.R.C.S. Eng., L.S.A., to the First and Second Districts.

Eton Union.—Charles S. Heap, L.K. & Q.C.P.I., M.R.C.S. Eng., to the Burnham District.

Martley Union.—Reginald M. Willan, M.R.C.S. Eng., L.S.A., to the Leigh District.

Newhaven Union.—Francis W. Butler, M.R.C.S. Eng., L.S.A., to the Third District.

Northallerton Union.—Henry Longford, L.R.C.S. Ire., L.K. & Q.C.P.I., to the Osmotherley District.

Wrexham Union.—James T. Gobat, L.R.C.P. Edin., M.R.C.S. Eng., to the Fifth District.

THE Lincoln authorities have just commenced to put the provisions of the Sale of Food and Drugs Act into operation. The first prosecution under the Act took place last week, when a dairyman was fined £2 for selling milk adulterated with 20 per cent. of water.

PROFESSOR FLOWER, F.R.S.—The Academy of Natural Science of Philadelphia has just elected this gentleman a corresponding member of the Society—an honour which is as gratifying to his many friends as it is to himself. Mr. Flower will conclude his present course of lectures on the 3rd prox.

A WORTHY EXAMPLE.—A property in Cross-lane, Salford, has just been purchased by the Town Council for the purpose of being converted into a permanent hospital for the reception of persons, *not being paupers*, who may be suffering from infectious diseases.

ROYAL COLLEGE OF SURGEONS.—Professor W. K. Parker, F.R.S., will commence his course of nine lectures on the Shoulder-Girdle and Fore Limb of Vertebrata, in the theatre of the College, on Monday, the 6th prox. The following is his programme, viz.:—Lecture 1. The Vertebrate Skeleton; 2, Shoulder-girdle and Fore Limb of Fishes; 3, ditto, ditto; 4, Shoulder-girdle, Fore Limb, and Sternum of Amphibia; 5, ditto of Reptiles; 6, ditto of Birds; 7, ditto of Mammals; 8, ditto, ditto; 9, Summary and conclusion.

HOSPITAL DONATIONS.—"Verax" writes to our contemporary the *Daily News*, last week:—"A few days back, when travelling from Moorgate-street to High Barnet, I placed a sum of money in a tin box at the former station, for one of the hospital charities. The money fell through on to the platform. On inspection, I found a hole cut out of the bottom of the box. I think this requires publicity."

MANCHESTER MEDICAL SOCIETY.—The following are the office-bearers for 1876:—*President:* Dr. Ransome. *Vice-Presidents:* Dr. Borchardt, Dr. Leech, Dr. Little, Dr. Morgan. *Hon. Secretary:* Mr. Walter Whitehead. *Hon. Treasurer:* Dr. Thorburn. *Hon. Librarian:* Mr. Cullingworth. *Librarian:* Mr. Driffield. *Committee:* Dr. Bird, Mr. Broadbent, Mr. Coathupe, Dr. Dreschfeld, Mr. Galt, Dr. Glascott, Dr. Hardie, Mr. Jones, Mr. Dixon Mann, Dr. Lloyd Roberts, Dr. Ross, Mr. Windsor. *Auditors:* Mr. Pinder, Mr. S. Buckley.

"NOTHING NEW UNDER THE SUN."—"It is forgotten," writes Mr. Hyde Clarke to a contemporary, "that there was a rink in London above a generation ago. Bradwell, of Covent-garden, a very ingenious man, was the inventor of the ice, and he tried it at the theatre. His rink, to which Mr. Bradwell gave the name of the "Glaciarium," was near the Regent's-park. His first season's surface was hard and polished, and bore skating well; but the amateurs complained it would not take a figure like real ice, so next year Bradwell invented an ice which cut well with the skate. The affair was on too small a scale to pay in those days."

THE METEOROLOGICAL SOCIETY.—The usual monthly meeting of this Society was held on Wednesday, the 16th instant, at the Institution of Civil Engineers. A paper was read on "Meteorology in India in relation to Cholera," by Colonel J. Puckle, M.S.C. The author in this paper lays before the Society some facts in connexion with several serious outbreaks of cholera in different parts of the Mysore country during the last fifteen years, and draws attention to the similarity of the abnormal meteorological conditions that existed on each occasion. Except in a few of the largest towns in India there are no sewers, and no sewer-gas proper. Even in these exceptional towns the drainage is incomplete. The general sanitary arrangements are of the most primitive character. In the rural districts the inhabitants adhere to the Mosaic law, in so far that they go forth to the fields, but they do not carry the "paddle" with them for the purpose that was the exponent of the "dry-earth" system; *that* necessary portion of the work is left to the drying action of a powerful sun, to the kites and other carrion birds, and—*horribile dictu!*—to the pigs and poultry that afterwards are doubtless turned into food. In this way it is not difficult to conceive that sewage of the direst and most unadulterated kind may possibly be taken into the system through poisoned meat, or during rainfall it may find its way to open reservoirs or wells, from which two sources the inhabitants depend for their water-supply. At other times, during the hot, dry weather, when no rain falls, malaria may arise, and be distributed through the agency of the atmosphere. Notwithstanding all that has been said and done, the clue to the mystery of the origin of the disease remains undiscovered. The same uncertainty obtains as to treatment. Remedies that at one time appeared to be most effectual, have at another most signally failed. Even during the same attack the remedy that cured one person would fail in another, even where parallel conditions apparently existed. Failure of the usual rainfall at the proper time, and abnormally high and harsh temperatures, have been concurrent with several attacks in Mysore and Southern India. At such times the open reservoirs or lakes and wells are much below the usual spring level, and any contamination received at such a time is obviously much less diluted and more harmful. The author then gives an account of several attacks that have come under his own personal knowledge, which shows beyond doubt that the disease has been arrested by change of air and surroundings, and that ordinary sanitary practice has prevented a possible outbreak. After referring to the recent outbreaks at Bangalore and Madras, the author says that everywhere the same story is told of the occurrence of cholera coincident with long absence of rain and a temperature abnormally high.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

C. S., Portsmouth.—Dr. Henry Briscoe is an Inspector of Prisons, the salary attached to which appointment is £750.

Amazon.—We cannot tell you on what terms ladies are admitted to the gallery of the theatre of the College of Surgeons to hear the course of lectures now being delivered there. Write to the secretary, Mr. Edward Trimmer,—specially courteous to ladies,—from whom you will receive full information.

B. S., King's College.—The operation for popliteal aneurism was first performed by John Hunter in 1785; he died in 1793.

Culpeper.—Professor Quekett's work on the Microscope will give you full information on the subject, and on the various illuminating subjects. Some of the gasteropods are provided with a muscular gizzard, armed with gastric teeth of stony hardness; they are interesting objects for examination.

Mr. Banting.—If *embonpoint* is generally a sign of good-humour and a cheerful disposition, leanness frequently betokens a sour, crabbed, and ill-natured character. Solomon has said that "a merry heart doeth good like medicine; but a broken spirit drieth the bones."

F. B.—Of the Kensington worthies mentioned by you for the memorial window, John Hunter and Sir James South were both members of the College of Surgeons; but we cannot find that Sir James McGriger was. On the south side of the altar were tablets to the memory of David Middleton, Serjeant-Surgeon and Surgeon-General to the Army, who died December 29, 1785, aged eighty-five, and his wife who died in 1810, aged eighty-nine. There is a fine painting of him in the College of Surgeons.

Mr. Williams.—The nightmare, or ephialtes, is considered a sympathetic affection of the brain during our sleep, generally arising from a derangement in the digestive functions. Discontinue your heavy suppers.

Mr. Hawkins.—Mr. Frank Buckland, M.A. Oxon., M.R.C.S., is one of the two Inspectors of Salmon Fisheries. The salary attached to this appointment is £700 per annum.

Teetotaler.—A recent return relating to drunkenness in Scotland, obtained by Dr. Cameron, shows that the total number of persons arrested in Scotland for drunkenness during the year ended June 30, 1875, was 61,173, of whom 38,213 were arrested as "drunk and incapable," and 22,960 as "drunk and disorderly." In Glasgow the return shows during the same period that 22,612 persons were taken into custody in Glasgow for "being drunk and incapable."

Obstetrician, Kensington.—In the case of candidates for the "L.M." of the College of Surgeons, who already hold legal qualifications, they will only be submitted to a good and practical examination in midwifery; it is entirely oral (no written examination) for ten minutes at three tables, by Dr. Arthur Farre, Dr. Barnes, and Dr. Priestley. The chairman, Mr. Prescott Hewett, Senior Vice-President, would only examine in the case of persons not possessing a registerable degree or licence, when he would give an examination something similar to that for membership of the College for about an hour.

J. Hume.—You are rather singular in your opinion. The salaries are not considered by any means extravagant, having regard to the nature of the duties, and the admirable manner in which they are carried out; moreover, some of the sums are much under what you state in three cases, as you will see by the following return:—Mr. John Simon, the P.M.O., £2[illegible]; Drs. Seaton and Buchanan £1000 each, and Dr. Mouat £600, as Assistant Medical Officers; the Inspectors, Drs. Stevens and Radcliffe, £8[illegible]0 each, Dr. Thorne £600, Drs. Blaxall, Beard, Ballard, and Airey, £550 each. And, as we have already observed, well do they earn their pay.

"*The Guy's Hospital Gazette.*"—This journal, which has existed as a weekly and fortnightly publication for about three years, is now issued as a monthly. It has never, we believe, been pecuniarily successful or received sufficient support from the students of the Hospital—the only class who could be expected to exhibit much interest in it. The first number of the new series contains evidence that its promoters are anxious to produce a journal of interest to Guy's men. If, after a few months' trial, their efforts are not sufficiently appreciated, we should recommend the promoters to consider whether it is wise to continue to waste their energies and capital on its production.

An Old Member.—The Surgeons were separated from the Barbers by an Act of Parliament passed on June 24, 1745, and in the eighteenth year of the reign of George II. It was called "An Act for making the Surgeons and Barbers of London two separate and distinct Corporations." The first Master (a title since altered to President) was Mr. Charles Hawkins, elected in 1800 with Mr. William Long. The first President was Sir Everard Home, elected in 1821; he had previously served the office of Master in 1813. We are unable to give you the information you desire regarding the large and most respectable family of Hawkins, but we believe that Sir Cæsar Hawkins was the uncle of our Dr. Francis Hawkins, Physician to the Royal Household, and Mr. Cæsar H. Hawkins, Serjeant-Surgeon to the Queen, and twice President of the College of Surgeons. John Adair Hawkins and the benevolent Dr. Bissett Hawkins, we believe, stand in the relation respectively of uncle and nephew. Mr. Charles Hawkins, the Government Inspector of Metropolitan Anatomical Schools, and late member of the Council, is, we think, of another family.

SCROFULOUS SORES OR RUNNINGS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—For the last twelve or thirteen years I have been prescribing the following remedy for scrofulous sores or runnings. It consists of three grains of corrosive sublimate in a pint bottle of whisky; a rag dipped in this twice or thrice a day and laid on the sores, and continued till the sores are all dried up, is all that is needed. Not one single case in which it got fair play ever failed of a cure. In one person the shoulder-blade was decaying; the pain was so great the patient could not work. It was pronounced by a very skilful surgeon to be hopeless, and a mere matter of time. In a few weeks this man was working, and works still, though years have passed. Another case was where the patient had suffered for many years; had been to many skilled surgeons far and near; and had to walk with stilts about the house. The pain at night was so great she often spent much of the night weeping, as she told me. After a short trial of my remedy she was able to lay aside her stilts and walk with a staff. She has been able for the last seven or eight years to walk three miles, sometimes seven miles, on a stretch, without staff or stilt. I could multiply cases, but let these suffice.

Looking on it as a boon to suffering humanity, I don't think it right—after having so fully tested it—to keep the secret any longer. I would implore surgeons to give it a fair trial wherever they have opportunity. Let them communicate their experience to your columns after a few months. If they do so I am not afraid of the result.

I am, &c., JOHN M'LENNAN.

Free Church Manse, Crosshill-by-Maybole, February 14.

*** We publish the above note at the request of its author, but mainly for the purpose of protesting against the practice, only too common, of ministers or clergymen of any denomination prescribing for their parishioners.

Mr. Denman.—The Calendar of the College states that an examination for the "L.M." will be held some time in this month. Write to the Secretary.

Buttons, jun.—The duty payable for every male servant is 15s. For carriages with four wheels, weighing 4 cwt., £2 2s.; but with two or four wheels under that weight, 15s. Armorial bearings on any carriage, £2 2s. For "buttons," £1 1s.

COMMUNICATIONS have been received from—

Mr. E. P. Weston, London; Mr. A. Hutton, London; Mr. C. Williams, Norwich; Mr. A. G. Snelgrove, London; Dr. G. M. Kober, Nevada; Dr. J. J. Ridge, Enfield; Dr. Balmanno Squire, London; Dr. Sparks, Mentone; Mr. W. Turnbull, London; Mr. Borchert, Netley; Mr. R. King, London; Mr. G. Sutton, Loudon; Mr. R. J. Godlee, London; The Registrar of Apothecaries' Hall, London; Mr. W. Marriott, London; Dr. Francis Ogston, Aberdeen; Dr. W. Bevan Lewis, Wakefield, Yorkshire; Mr. Edward Nicholson, Sheffield; Dr. James Dunlop, Glasgow; Dr. C. Theodore Williams, Loudon; Mr. Thomas Stone, London; Mr. Henry Morris, London; Mr. J. Chatto, London; Dr. Fredk. Churchill, London; Mr. George Brown, London; Dr. Powell, London; Dr. Crombie, London; The Secretary of the Obstetrical Society, London; The Secretary of the Harveian Society; Mr. W. Whitehead, Manchester; The Secretary of the Royal Institution; Mr. Morrill, London; Mr. Furneaux Jordan, Birmingham; The Secretary of the Royal Microscopical Society; Our Glasgow Correspondent.

BOOKS AND PAMPHLETS RECEIVED—

Outline Drawings of the Figure for Recording the Situation and Form of Cases of Skin Disease, by B. Squire, M.B.—Cox on the Mechauism of Man, vol. i.—Spence's Lectures on Surgery, second edition, two vols.—Flint's Text-book of Human Physiology—Blyth's Dictionary of Hygiene and Public Health—Darwin's Animals and Plants under Domestication, second edition, two vols.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Londonderry Sentinel—American Practitioner—Chicago Medical Journal and Examiner—Annales de Ciencias Médicas—Trade-Marks Gazette—Melbourne Medical Record.

APPOINTMENTS FOR THE WEEK.

February 26. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. W. Thiselton Dyer, "On the Vegetable Kingdom; the Boundaries and Connexions of its Larger Groups."

28. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. A Clinical Evening. Communications by Dr. Brunton, Dr. Heywood Smith, Mr. Richard Davy, and others.

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

29. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

March 1. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

Royal Medical and Chirurgical Society, 8 p.m. Annual Meeting: Election of Officers; Report and Address of the President.

Royal Microscopical Society, 8 p.m. Meeting.

2. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Dr. Wiltshire, "On Pruritus Vulvæ."

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

3. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor W. H. Flower, "On the Relation of Extinct to Existing Mammalia."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Odling, "On the Paraffins and their Alcohols."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 19, 1876.

BIRTHS.

Births of Boys, 1246; Girls, 1229; Total, 2475.
Average of 10 corresponding years 1866-75, 2360·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	998	1007	2005
Average of the ten years 1866-75	783·6	741·4	1525·0
Average corrected to increased population ...	...	...	1632
Deaths of people aged 80 and upwards	...	...	88

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	3	1	20	...	1	1	2
North	751729	...	11	16	2	27	1	6	...	7
Central ...	334369	...	6	5	1	8	...	...	...	1
East	639111	...	7	4	1	33	1	2	...	...
South	967692	...	13	12	3	42	...	3	2	3
Total	3254260	...	48	40	8	130	2	12	3	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·404 in.
Mean temperature	44·5°
Highest point of thermometer	59·0°
Lowest point of thermometer	21·8°
Mean dew-point temperature	40·3°
General direction of wind	S.W.
Whole amount of rain in the week...	0·61 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 19, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Feb. 19.	Deaths Registered during the week ending Feb. 19.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2475	2005	59·0	21·8	44·5	6·95	0·61	1·55
Brighton	100632	42·7	56	55	50·3	27·8	41·7	5·39	1·36	3·45
Portsmouth ...	124867	27·8	75	61	...	...	...	...	...	...
Norwich	83430	11·2	57	30	58·0	23·0	42·5	5·84	0·90	2·29
Plymouth	72230	51·8	42	44	53·5	33·5	44·5	6·95	1·67	4·24
Bristol	199539	44·8	140	128	54·1	26·9	44·8	7·12	2·84	7·21
Wolverhampton ...	72549	21·4	59	40	53·0	21·5	41·8	5·45	1·32	3·35
Birmingham ...	371839	44·3	264	199	56·0	24·0	43·1	6·17	1·15	3·17
Leicester	113581	35·5	87	48	56·5	23·5	43·2	6·22	1·14	2·90
Nottingham ...	93627	46·9	68	75	58·4	24·2	39·8	4·34	0·72	1·83
Liverpool	521544	100·1	424	420	53·9	29·7	42·6	5·90	0·97	2·46
Manchester ...	357917	83·4	274	265	57·6	27·5	43·1	6·17	1·41	3·58
Salford	138425	26·8	110	106	55·3	28·2	42·2	5·67	1·18	3·00
Oldham	88609	19·0	67	63	...	...	...	...	...	...
Bradford	173723	24·1	137	98	54·6	28·0	42·8	6·00	0·88	2·24
Leeds	291580	13·5	258	161	56·0	23·0	41·5	5·28	0·70	1·78
Sheffield	274914	14·0	237	158	54·0	27·7	41·6	5·34	1·08	2·74
Hull	136933	37·7	97	53	55·0	25·0	41·2	5·11	0·60	1·52
Sunderland ...	108343	32·8	105	46	54·0	28·0	41·6	5·34	0·43	1·09
Newcastle-on-Tyne	139929	26·1	101	72	51·0	22·0	...	...	0·75	1·90
Edinburgh	215146	51·3	128	114	54·0	21·0	38·5	3·61	...	...
Glasgow	545144	90·4	387	361	45·7	26·5	37·1	2·84	1·05	2·67
Dublin	314666	31·3	208	269	59·8	23·0	44·0	6·67	0·96	2·44
Total of 23 Towns in United Kingdm	8028595	37·7	5856	4871	59·8	21·0	42·1	5·62	1·09	2·77

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·40 in. The highest was 29·68 in. at the beginning of the week, and the lowest 29·06 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture IV.

MEDICO-LEGAL ASPECTS OF DEATH.

(*Concluded from page* 219.)

In proceeding, as must next be done, to notice in detail the three different modes of death—viz., by *coma*, by *asphyxia*, and by *syncope*,—I shall have occasion to advert *incidentally* to the different arrangements of these adopted by the German jurists, which, as less simple and lucid, are not well adapted for practical purposes, and are admittedly less defensible on logical grounds. I begin with

1. *Death by syncope*, or *death beginning at the heart*. The causes of death by syncope have been classed under *four divisions*, as these causes are found to act more especially on (*a*) *the circulatory system*, (*b*) *the nervous system*, (*c*) *the other organs of the body*, or (*d*) as these are either more general or more obscure in their mode of operation.

To the first (*a*) *of these divisions* is referred all cases of *extensive hæmorrhages*—whether by wounds of the heart itself, or the larger bloodvessels; escape of this fluid from other organs—as the uterus, lungs, etc.; excessive discharges which indirectly lessen the quantity of the circulating fluid, as extensive suppuration, starvation, etc. This division corresponds exactly with the so-called "*anæmic death*" of the Germans, and the "*anæmia*" of pathologists generally.

To the second (*b*) *division* may be referred certain agencies which *depress* or *exhaust the nervous system*, without interfering with the amount of the circulating fluid within the body; such as certain poisons, acute peritonitis, low fevers, malignant cholera, severe lesions of the brain, concussions of the spine, severe blows on the *præcordia* or epigastrium, the entrance of air into the veins, etc. This corresponds pretty closely with the "*neuro-paralytic death*" of the Germans, and the "*asthenia*" of pathologists.

In the remaining two divisions some of the causes of death are less clearly discernible. The cases which stand out most distinctly are those injuries which destroy life with violence, sudden in its character, and extreme in its severity—such as being crushed by falling buildings, beams, masts, the wheels of machinery, etc.; being run over by carriages or railway trains—and which come under the designation of "*mechanical deaths*" in German medico-legal works. A less clearly marked class of cases in these two divisions are those which the Germans distinguish as "*dysæmic deaths*"—such as are traceable, though obscurely, to "the chronic ingestion of arsenic," alcohol, phosphorus, and probably some of the alkaloids; and "those cases in which severe injuries followed by illness and operative interference destroy life by *pyæmia*." —(Caspar, vol. i., page 60.)

The operation of these various causes, and others of a like kind, are more or less readily understood. The heart's action coming to be arrested, the brain, the lungs, and consequently all the other organs of the body, cease to receive more blood, leading to an almost instantaneous and simultaneous cessation of circulation, respiration, and innervation.

In this case the examination of the body shows only *negative indications* of the cause of death. The absence in most instances of any morbid appearance, coupled with the equality of the distribution of the blood between the right and left sides of the heart, and between the arteries and veins, sufficiently distinguish between death by syncope and death by either coma or asphyxia.

Devergie has contended for a *speciality* in regard to syncope *following wounds of the heart itself, not immediately fatal*, as these are found to have their seats on the *right or left sides of this organ*, when the appearances differ, not only from ordinary cases of syncope, but also according to *the side of the heart* which has been *wounded*. Thus, he asserts that the *wounding of the right side of the heart*, by arresting the propulsion of the blood, leads to the accumulation of this fluid in the larger veins, with deficiency of it in the lungs, brain, and left heart; and that, on the other hand, in the wounding of *the left side* of the heart, from the same cause, the lungs will be found gorged with blood, the right cavities of the heart distended with this fluid, and its left cavities empty.

It is doubtful, however, how far these criteria of Devergie are to be trusted. I have failed to realise his distinctions in actual cases of wounds and ruptures of the heart, both prior to the year 1867 (vide *Brit. and For. Med.-Chir. Rev.*, vol. xxxix., page 186) and subsequently.

2. We now come to notice *the second of the modes* of death, enumerated as *death beginning at the lungs*. To this mode of death the term "*asphyxia*" is generally applied, though objectionable on some accounts, as implying, when correctly interpreted, rather death by syncope than death by the primary arrest of the functions of the lungs—the word "asphyxia" meaning literally, not breathlessness, but *pulselessness*. As now understood, however, the necessity for substituting for it the term "*apnœa*" need not be insisted on—as has been done by some writers,—it being difficult to get rid of words in such general use as the one in question.

Total asphyxia or apnœa may be brought about by causes which act in either of the three following ways, viz.:—(1) by arresting *the action of the muscles of inspiration;* (2) by leading to the *cessation of the action of the lungs themselves;* or (3) by the *exclusion of the atmospheric air from the lungs.*

1. *Cessation of the action of the muscles of inspiration* may be due to the *exhaustion of the muscles* themselves from the sedative effects on them of cold or debility; to *loss of nervous influence* to them, as from division or compression of the upper part of the spinal cord, or of the phrenic or pneumogastric nerves; to *mechanical restraint*, as by pressure on the chest or abdomen; or to *tonic spasm*, as in death from the tetanus caused by nux vomica and one or two other poisons.

2. *Cessation of the action of the lungs* may be due to division or compression of the eighth pair of nerves; or to a mechanical obstacle, as by the admission of air or of the abdominal viscera into the chest in wounds of the thorax and abdomen.

3. *The partial or complete exclusion of atmospheric air from the lungs* may be brought about by its *entire absence* or *extreme rarification;* it may be *mechanically* excluded, as by a foreign body in the larynx, trachea, or upper part of the œsophagus, by submersion, by suffocation, by strangulation, or by suspension; or the place of the atmosphere may be taken by a gas which acts merely by excluding it; or, lastly, irritant gases, by producing spasm of the glottis, may effectually bar the admission to them of the air.—(Guy's Manual, pages 302-3.)

The two former of these sets of causes lead up to the fatal result by suspending the *mechanical actions* of the respiratory organs, the last of them by arresting the *chemical changes* going on in them. Their ultimate effect, however, is the same, the arrest of *the mechanical* speedily involving that of *the chemical functions of the lungs*. The suspension of these, whether directly or indirectly brought about, necessarily involves in a very short period the arrest of the actions of *the heart*, and subsequently the functions of *the brain*. The air having ceased to arrive at the lungs, the current of the circulation becomes entirely venous, no longer affording them their necessary stimulus; the heart's action becomes enfeebled; the general circulation is carried on in a languid manner, and, affecting the brain, its functions cease to be performed. The lungs having now become gorged with blood, the circulation is arrested there, the left cavities of the heart are emptied, and death supervenes.

The most prominent of the morbid appearances after death by asphyxia will only require notice at present, and these are sufficient to distinguish it from death by syncope. They consist in engorgement, to a greater or less extent, of the right cavities of the heart and of all the more important viscera, as the lungs, liver, spleen, kidneys, and brain, with a comparative vacuity of the left side of the heart and the arterial vessels. To this subject, however, we shall have to return afterwards in greater detail.

The only mode of death which remains to be adverted to is the third of those enumerated, or

3. *Death by coma* or *death beginning at the brain*. The primary arrest of the functions of the brain may be induced by a variety of causes. Amongst the most common of these is (*a*) pressure on the brain or medulla oblongata by effused blood, depressed bone, etc. (*b.*) Another very important and not uncommon cause of coma arises from the effects of blows, falls, etc., on the head and other parts, when of a severe sort—

formerly attributed to the mere deficiency of nervous energy of the brain, following the concussion or shock, but now to derangements, more or less distinguishable, of the cerebral structures. (*c.*) The use of certain substances, such as narcotic poisons, etc., may be followed by coma in consequence of the specific influence which they exert on the brain and nervous system. (*d.*) Lastly, the hæmorrhages or discharges from wounds, when insufficient to induce fatal syncope, may lead to death by coma by their paralysing effects on the nervous centres.

When the cause of death is such as to act *primarily upon the brain* so as to suspend its functions, the first effect which succeeds is the interruption of *the mechanical*, and, subsequently, the *chemical processes* which the respiratory organs perform; which next involve the functions of *the heart*, in precisely the same manner as if the cause had acted primarily on *the lungs*. From this it will be gathered that the essential appearances after death in either of these two ways are nearly, if not entirely, alike both in coma and asphyxia—an amount of agreement, however, which is mostly wholly encountered in those instances in which *asphyxia has followed coma*.

From what we have said it results—

1. That if the cause of death acts primarily by *the complete suspension of the action of the heart*, we should find the lungs, the brain, and the capillary system generally, nearly in their natural state. The arteries should contain blood, as well as both sides of the heart, where it should be found in nearly equal quantities.

2. In death beginning *at the lungs*, the left heart, the arteries, and the brain are almost deprived of blood, while the capillaries generally, the veins, and the right heart are full of it.

Finally, in death beginning *at the brain*, the arteries and the left heart are empty, and this although the suspension of its functions has been the effect of a concussion or otherwise. The right heart, the veins, and the lungs contain, on the contrary, a notable quantity of blood, but much less than when the death has begun at the lungs. There may likewise be congestion or effusion of blood within the head, in consequence less of this mode of death than of cerebral hyperæmia or apoplexy.

Such, then, are the general principles on which we proceed, in practice, to the determination in all cases of the immediate causes of death, whether suddenly or consecutively—at more or less distant periods,—and whether from the effects, direct or indirect, of injuries of whatever kind. As will have been seen, the heads to which they have been referred embrace the explanation of all the modes of death, whether occurring *naturally* or *otherwise*, and as such yield us the widest generalisations of which the state of the subject will as yet admit. That there are cases of death which do not allow of being distinctly classified or arranged under any one of these divisions, cannot be denied; whether we limit these to instances of *violent* death, or extend their range so as to include deaths from natural causes. It must be conceded, then, that if we are possessed of no other information than what is deducible from the examination of the dead body, it may happen that we can neither discern the true cause to which the cessation of life is to be properly attributed, nor be in a condition to connect that cause with the agency which may have preceded it. But cases of this puzzling sort, though they may occur, are but rarely to be encountered in practice, and would almost disappear entirely in the instances in which the previous history was known.

A more important defect attaches, however, to the scheme which I have attempted to elucidate—viz., the difficulty of determining in every instance the distinct boundaries which separate death by coma from death by asphyxia, and the reverse. As we have seen, death by coma virtually resolves itself into death by asphyxia, which makes it not unfrequently difficult, if not sometimes really impossible, to decide, from the view of the dead body, to which site—the brain or the lungs—to ascribe the primary congestion. In these circumstances our German brethren have adopted a *fourth* form of sudden death, compounded of these two, under the unpronounceable name of "apoplectisch-sufficatorisch tod,"—which we might transmute into the synonymous term of "comato-asphyxia." But whether we adopt this additional form of death or not, the existence of such a class of cases, in which the predominance of the appearances due to either the one or the other of the two divisions—coma and asphyxia—does not admit of question, and is sometimes encountered under circumstances of no unimportant kind. Some years ago I had occasion to publish an instance of this sort in a female who died under the hands of a person attempting to force her, and in which I, for one, would not undertake, after the most lengthened examination of the body and careful study of all its appearances, to decide positively whether she had died by the one form of death or the other—a caution which the event justified, as her assailant, in his dying declaration, freely and voluntarily emitted, admitted enough to show that the mode of death—viz., by suffocation, as assumed by the Court, and leaned to by the other medical witnesses,—could not have been the real one.—(*Med. Gaz.*, new series, vol. x., page 38.)

On this point I need only add that the classification of the various forms of sudden and slower death which I have thought it best to follow is the one first sketched out by Bichat, and still adhered to by all our British and American jurists, and is more comprehensive than that followed in Germany, which *omits most of the causes of natural death*, and, deals chiefly with those only of *a violent sort*, sets up distinctions without difference, necessitates conclusions based upon purely speculative views, and leaves us no key to those mixed cases of apparently violent but really natural death, and *vice versâ*, with which the medical jurist has often to deal.

Having thus concluded what had to be said on (I.) *the modes of its occurrence*, I come next to advert to (II.) *the series of changes* which are found to follow *the death of the body prior to the commencement in it of the process of decomposition*. This, however, must be reserved till next lecture.

ABSTRACT OF A CLINICAL LECTURE
ON THE
EXTENSION OF INFLAMMATION FROM THE EPIDIDYMIS TO THE URETHRA.

By FURNEAUX JORDAN, F.R.C.S.,
Professor of Surgery at Queen's College; Surgeon to the Queen's Hospital, Birmingham; and Consulting Surgeon to the Women's West Bromwich Hospital.

Gentlemen,—I have had many opportunities of showing you cases of epididymitis following urethral disease. The disease is a common one, and its causes are many—almost too many to count. It would be easy to run over some half a hundred, and yet leave a few unmentioned. Urethral disease following and resulting from inflammation of the epididymis is, on the other hand, rare; it has few causes, and is not yet at all recognised.

I show you here a case of urethral discharge, which followed traumatic inflammation of the epididymis. This young man was in good general and genital health. He had never had gonorrhœa. His urethra, meatus, and prepuce were perfectly healthy when he came into the hospital. He received a violent kick on the left testis, and came in two days afterwards with some ecchymosis in the scrotum, and severe pain, tenderness, and swelling, which were clearly seated in the epididymis. On admission, the cord was not thick, nor tender, nor painful. The day after admission, I myself found part of the cord greatly thickened—the thickened portion running up from the testis, and gradually subsiding just below the outer inguinal ring. The second day after admission, the swelling of the cord had passed into the canal, which was now full and tender. Two days later a urethral discharge, neither abundant nor scanty, and whiter than ordinary gonorrhœal fluid, made its appearance, and with it micturition became a little painful and a little more frequent. This is the first case I have been able to show you, and I have myself seen very few.

Recently I saw a case of epididymitis, also from injury, of much interest, and having a direct bearing on our subject. A gentleman, aged fifty, in fair health, came, in the dark, with his right testicle against a key in a door. Scrotal ecchymosis and considerable epididymitis followed. The cord became much enlarged, running like a rope up into the inguinal canal. Later, an abscess formed and broke at the front of the scrotum. Now, in this case, from first to last there was no urethral discharge. There was undoubtedly inflammation of the epididymis, and as undoubtedly the inflammation ran up the cord—probably to the urethra.

The question naturally suggests itself, albeit parenthetically, Why does inflammation of the mucous surface yield a muco-purulent discharge in one case and not in another? Why, in

one case of inflammation of the bladder or bronchial tubes, is there abundant pus and mucus, and in another case little or none? I reply, We do not know. You frequently hear me use the expression "We do not know." I think it better to say plainly we do not know than to cover our ignorance with sounding phrases. It may seem paradoxical to you, perhaps, but I often silently contemplate the benefits of a negative system of surgery—if we could get it: I mean a systematic review of what we do *not* know. The author would be a man of no ordinary courage; he ought to be a man of learning, experience, and judgment equal to his courage.

The case I have just told you proves the conclusion I wish to bring before you—namely, that inflammation may run upwards from the epididymis—more forcibly, in one respect, than if a discharge had followed. You are aware that at the height of a consecutive epididymitis the urethral discharge often disappears, only to return a little later; but here it was clear we had no hypocrite trying to hide a clap, because there was at no time any clap to hide.

Touching the question of suppuration, I find, with surprise, that so careful an observer as Van Buren denies its occurrence in epididymitis. If there be an abscess, he infers that the body of the testis is inflamed. I believe that in this country surgeons are agreed that suppuration is not rare in the consecutive or other epididymitis of cachectic men.

Let me ask you now to look for a few moments at the causes of inflammation of the epididymis and cord. Bear in mind that any inflammation of the prostatic urethra may extend along the cord to the epididymis. Now, an inflammation of the bladder of any kind, whatever its cause, under whatever circumstances it arises, may run forwards to the prostatic urethra, and thence to the epididymis. Again, an inflammation of the anterior urethra of any kind, however caused, arising under whatever circumstances, may run backwards to the prostatic urethra, and thence to the epididymis. Acute inflammation arising primarily in the epididymis has few causes: I can speak positively of one only,—injury. If the causes of primary epididymitis were more numerous, we should, I think, long ago have held urethral disease to be one of its results. Why injury sets up epididymitis mostly, and not orchitis, is no doubt for the same reason that inflammation of the cord and epididymis so rarely reaches the testis—namely, that within the tunica albuginea there is no room for acute inflammation, for vascular changes, cell-proliferation, migration of cells, the running riot of germinal matter, or other inflammatory phenomena.

If you accept the facts of the case before you, and my reading of them, you will now and then be able to explain an otherwise obscure gleet. Moreover, you will not be compelled to affirm that in every case an epididymitis and a gleet together have necessarily a urethral, much less a sexual, origin. The views now before you may occasionally have (I speak from personal observation) important domestic or legal bearings.

The treatment I adopt here is that which I am in the habit of adopting in inflammations; but which, seeing that it is exceptional, and strange to examining boards, I rarely take up your time in explaining. My creed is brief: I believe that the inflammatory process is much the same everywhere. I believe that the best remedies in one inflammation are the best in all. I believe that the best remedies are removal of cause (where it is removable), rest, adjacent and not too near counter-irritation, suitable pressure, elevation, and a few simpler matters. I therefore in each case try to find out the best way of using these remedies. In acute epididymitis I enjoin counter-irritation lightly over the scrotum, sharply in the groin and front of thigh; pressure, which begins as a delicate support, and goes on to actual compression; rest and elevation, as far as they are practicable. The value of compression is well seen in the circumstance to which I drew your attention a moment ago—namely, the pressure kept up on the testis. If our bodies were mapped out into small areas, and each area were bounded by a firm capsule like the tunica albuginea, we should be free from the dangers of at least acute inflammation.

Maine Liquor Law.—In his recent message to the Legislature at Maine, Governor Connor remarked:—"Maine has a fixed conclusion upon this subject. It is that the sale of intoxicating liquors is an evil of such magnitude that the well-being of the State demands, and the condition thereof warrants, its suppression."

ORIGINAL COMMUNICATIONS.

on the

PREPARATION OF SECTIONS OF FRESH BRAIN FOR IMMEDIATE MICROSCOPICAL EXAMINATION.

By BEVAN LEWIS, L.R.C.P. Lond., F.R.M.S.,
Pathologist and Assistant Medical Officer, West Riding Asylum.

A short time since I endeavoured to give the results of my experience in regard to the staining of sections of hardened brain for microscopic examination, and the measures I most approved of for the better differentiation of structure. These results, which were published in the *Quarterly Journal of Microscopical Science* for January last, were in many respects highly satisfactory. Yet all my readers will surely agree with me that numerous fallacies may creep in upon our interpretations of the appearances presented by sections prepared by the usual processes of hardening. The use of chromic acid, the bichromate of potash solutions, and Müller's fluid, must necessarily involve certain disadvantages, more especially in the case of tissues so frail and so delicate as those which the higher nervous centres present to us. Having enjoyed the privilege of working for the past twelve months in the physiological laboratory of the West Riding Asylum, I have devoted my energies entirely towards the improvement of *methods* of microscopical research, feeling confident that in this direction much progress might be made towards the unfolding of some of those mystic enigmas involved in cerebral pathology.

The objections to the old processes of hardening are numerous, and my later investigations thoroughly substantiate the opinion I have always held, that many alterations from the normal condition of the cerebral tissues must ensue by these measures, and hence give rise to endless errors of interpretation. Nor need I mention to those practically acquainted with the work the glaring disadvantages involved in so complicated a process as that usually employed: the length of time (often four to six weeks) which must elapse ere a fine section can be cut, the varying strength of the solutions required, etc. For a full detailed account of these I cannot do better than refer those not acquainted with the subject to Frey's "Handbook of Microscopic Technology."

What we require is a ready method of preparing sections of the cerebral and cerebellar cortex, displaying the general appearance of the cells, nuclei, neuroglia, and vascular supply,—a method which can be adapted to ordinary post-mortem examinations carried on simultaneously with the latter, so that each post-mortem record should also embrace a general survey of the histological elements of the brain. I am fully aware that such a scheme has long been sought after, and that the nearest approach to it is the process lately described by Mr. H. R. O. Sankey in the *West Riding Asylum Reports;* but a far more rapid preparation of the brain cortex is necessary to supply the conditions enumerated above. Nowhere, perhaps, is the need of such a rapid method more keenly felt than in our larger lunatic asylums, where post-mortems are so freely carried on, and the amount of pathological material requires vigorous and incessant efforts to utilise it for the purposes of scientific investigation.

The process which I adopt at the West Riding Asylum is one already yielding very valuable results, and I therefore offer it the more confidently to the consideration of my fellow-workers in this department. The special advantages which I claim for this process are the following:—A good slide of any part of the cerebral or cerebellar cortex may be mounted and ready for examination in less than *five minutes;* that the differentiation of structure by the staining is as perfect as could possibly be desired; that the cells retain their proper contour, undergo no shrinking, and hence appear larger than in sections prepared under the old process; that connexions are brought out most beautifully, and the neuroglia matrix need be little, if at all, altered. The only disadvantage attached to this process (if, indeed, it be a disadvantage) is the altered relationships of the part. For purely pathological purposes, where our object is to individualise the various elementary constituents, and recognise the morbid character of these, I regard this as of very little moment; but for purposes of comparative histology I readily admit that sections should be examined both fresh and by the hardening process.

The process adopted by myself is as follows :—A portion of a convolution of convenient size is held between the thumb and second finger of the left hand, the index-finger serving as a rest and guide for the blade. The finest possible sections are now made through the grey, down to the white matter, by a section-knife well moistened with water (not spirit). One of the thinnest is gently transferred to a glass slip, and a tolerably large cover-glass dropped on, the cover being gradually and equably pressed down until a thin, almost transparent, lamella is obtained. The staining proceeds more expeditiously if the surface-moisture of the section is allowed to evaporate before dropping on the cover. A large drop of a strong solution of aniline black is now placed near the edge of the covering-glass, the point of a penknife being placed slightly beneath the edge also in this situation. The cover is steadied by the finger at the opposite point, and a gentle, gradual tilting of the cover up and down by means of the penknife allows the aniline to run into and bathe the section above and below without any tearing. The cover is then allowed to fall back into its former position, and in about thirty seconds the section will be found sufficiently and uniformly dyed. The cover-glass is again gently pressed down, all superfluous dye removed from its edge, and the slide placed in a basin of cold water. In a few seconds, by careful manipulation, the cover can be slid off from the stained film, and the latter removed upon the centre of the slide, all superfluous moisture drained off, and the preparation dried by exposure. When this has been accomplished, clearing up with oil of cloves and mounting in balsam is all that is requisite.

If this process be accurately carried out, the most beautiful preparations result; and I trust soon to be able to make public many points of interest already recognised by the application of this process to cerebral pathology.

I cannot conclude this article without acknowledging the debt of gratitude I owe Dr. Crichton Browne for his liberal and constant supply of the material requisite for carrying on my late investigations, as well as the valuable assistance and encouragement rendered to me by Dr. Herbert Major—a well-known authority in these matters.

POISONING BY MORPHIA.

By CHARLES J. EGAN, A.B., M.R.C.S.E.

The following case presents some points of interest on account of the age of the patient, the quantity of the drug taken, and the length of time during which the galvanic current and artificial respiration were kept up. In carrying out the treatment, I was well assisted by Dr. Maxwell, Staff Surgeon attached to the 13th Light Infantry, and Mr. Davies, member of the Pharmaceutical Society, Chemist to Guy's Hospital, King William's Town.

On Sunday, October 11, 1875, a child (female), seven months old, at 7.30 a.m. was given, by mistake, a powder containing one grain of muriate of morphia, and was then sent out with its nurse. It was brought home again at 9.20 a.m., and its mother then observed that the child was very heavy and drowsy, and had a peculiar look about its eyes (produced, I suppose, by the excessive contraction of the pupils). It then struck her that some mistake had been made in the powder that had been given to the child, and, on examining, she found that, instead of half a grain of calomel (ordered for the child for constipation), a powder containing a grain of muriate of morphia had been given. This powder had been prescribed as an external application to a blistered surface in a case of sciatica in an adult. An emetic of mustard was immediately given, and the child roused up in every possible way. The mustard took no effect, and then sulphate of zinc was administered, two grains every ten minutes.

At this time I first saw the child. It was then in a very drowsy state, the pupils contracted to a pin's point, the pulse 120, the respiration slow, the feet and hands cold and clammy, the lips blue, and the skin dusky. After the third dose of the sulphate of zinc—warm water being given after the medicine,—the child vomited, but was quickly becoming almost comatose, and could with the greatest difficulty be roused to take notice of its mother. I ordered a mixture of liq. ammoniæ gt. x., tinct. valerianæ am. ʒ ss., tinct. belladonnæ gt. viij., aquæ ʒj.—a teaspoonful to be given every quarter of an hour; also an enema of tinct. assafœtidæ ʒ ss., liq. ammoniæ gt. x., ol. olivi ʒ ij., aquæ ʒ ij.; and at the same time I sent for a galvanic battery, which was quickly brought, and set in action by Mr. Davies, M.Ph.S. One pole of the battery was applied over the phrenic nerve in the neck, and the other over the epigastrium. The battery used was one manufactured by Weiss and Co., of London (induction coil, with two of Smee's cells). The galvanic current was commenced at 10 a.m., at half strength, and roused the child a little when first applied. The enema given was immediately expelled, and the first dose of the medicine was swallowed with great difficulty, and only by exciting deglutition by blowing in the child's face. The second dose at 10.30 was also got down by the same means, and then another enema was administered: this had the effect of slightly rousing the child, and was very soon expelled. At 11 a.m. a third dose of the medicine was tried, but could not be swallowed, and the child's respiration become stertorous; the whole surface of the skin became quite congested and livid, and the lips blue. A third enema was now administered, which was also immediately expelled. The child at this time appeared almost dead: the respiration had almost ceased, and though the pulse was still beating at about 120 per minute, it was becoming very feeble. The strength of the galvanic current was then increased to the full power of the battery, and artificial respiration was commenced; and at this time, in order to allow more freedom in carrying on the artificial respiration, one pole of the battery was placed at the nape of the neck, the other being still kept at the epigastrium, and they were retained in this position during the continuance of the case. Artificial respiration was carried on by Dr. Silvester's "physiological method." The child was laid on its back on a pillow in the lap of an assistant, who kept its mouth open with the finger, at the same time pressing down the tongue, while I alternately raised its arms over its head and then brought them down by its sides, and at the same time compressed its thorax with my hands. The respiration was maintained in this way during the whole course of the case by myself and alternating assistants. After half an hour the lips again became red, and the colour of the body improved; however, the medicine could not be given, as the power of deglutition was gone. At 12 (noon) another enema was administered, which was retained. The galvanic current and artificial respiration were steadily kept up till three o'clock in the afternoon, and during this time three enemata were given, all being retained; the bowel evidently having lost the power of expelling them. At 3 p.m., in spite of the galvanism and artificial respiration, the child again became perfectly livid and the lips quite blue, and large crepitus could be detected by the stethoscope in the lungs. I then had some cold water poured from a height on the child's head. This roused it up, and it opened its eyes and looked about; but on stopping the artificial respiration it again relapsed into its former state. On three occasions between three and five o'clock the child became almost comatose, and was temporarily roused up by the cold douche on the head. At 5 p.m. the child roused up, looked about, and began to cry, but soon relapsed into the same semi-comatose state, and the respiration again almost ceased; we therefore had to resume the artificial respiration. At first we tried it without the galvanic current, but not with the same good effect as before, so that the battery was again put in action. At 6 p.m. the child again roused up, and began to take notice of the people about, and had a good long cry, tears now appearing in the eyes, and the pupils beginning to dilate (up to this time they had continued contracted to a pin's point). We now ceased the use of the galvanism and artificial respiration, and kept the child roused by talking to it, and slapping it on the face and chest with cold wet cloths, and making noise in the room. At this time, also, the child, for the first time during the day, passed a small quantity of urine. At 7 p.m. the bowels were well relieved, all the enemata that had been given and retained coming away with fæces. The abdomen was found to be very tympanitic, and turpentine fomentations were applied, which gave great relief. From this time the child gradually recovered, but was very dull, and greatly inclined to fall off into a semi-comatose state. It, however, took its bottle; and by shaking, and talking to it, and dashing cold water into its face, it was kept awake. It was not allowed to sleep for more than ten minutes at a time during the whole night, and on the following day it was listless and heavy. There was also a good deal of large crepitus at the base of the lungs, and sound of mucus in the throat. On the following day (Tuesday) the child was quite lively, and the lungs quite clear.

During the course of this case the galvanic current was kept up from 10 a.m. to 6 p.m. (eight hours), and the artificial respiration was kept up from 11 a.m. to 6 p.m. (seven hours). Six enemata were administered; the first three were rejected immediately after being given, but afterwards the bowel appeared to lose the power of resisting the irritation, and they were retained until consciousness began to return. Only three doses of the medicine ordered were given, as after 11 a.m. all power of deglutition was lost; and it is altogether to the action of the galvanic current and the artificial respiration that the recovery of the child must be attributed. It was found that the use of the one (artificial respiration) without the other (galvanism) was not sufficient, for on one occasion, when only the artificial respiration was kept up, the child became more and more comatose until the galvanism was again resumed. The galvanic current appeared to act more especially on the heart, for while it was kept in action the heart beat at a rate of 120 per minute, and was pretty strong, but on the current being stopped the pulse failed and became weak, and at one time almost imperceptible, but on renewing the current it came back to its previous condition.

The first secretion that returned was the lachrymal, and next the urinary—the latter at first in only a few drops, but afterwards more copiously. No doubt some of the morphia was removed from the stomach before absorption had taken place, but a large portion, and an excessive one for a child of seven months old, must have been absorbed during the two hours that elapsed between the administering of the drug and the action of the emetic.

King William's Town, South Africa.

REMARKS ON THE

OFFICE OF SURGEON-SUPERINTENDENT OF GOVERNMENT EMIGRANT SHIPS.

By JOHN HUDSON, L.R.C.P. Lond., Staff-Surgeon R.N.

Bearing in mind the artificial and exceptional conditions of life on board ship, as affecting a mixed community of passengers, those placed in charge will find the advantage of a special knowledge of such life. In other words, it is necessary to be well "up to the ropes" in order to attain success, as well as to understand the life and character of seamen—even the phrases and peculiarities, the strong and weak points, of "poor Jack."

It would seem presumptuous to attempt to explain my mode of dealing with my fellow-men. Nevertheless, it may be useful to those who have had no experience in such matters to state the principles which regulate my conduct in relation to this important and responsible charge.

1. I have endeavoured to adhere strictly to the admirable introductory remarks to my Instructions. 2. To place the morning round, and my visits and dispensing generally, in the very forefront of my duty; making myself acquainted with individual character; detecting and treating disease in its very beginning, and watching the changes and progress of cases; to patiently hear and settle all complaints, whether trivial, personal, or general; always to protect and defend the weak and simple, and especially to look after the young, who cannot explain their wants and sufferings; to observe strict impartiality, always having distinct and intelligible grounds for everything I do in regard to indulgences, allowances, and alteration of rules, appointments, fittings, diet, and particularly as to the issue of medical comforts; to uphold the position of my subordinates, conferring with, and, if need be, admonishing them apart from the people; in redressing wrongs and grievances, always to respect the feelings and prejudices, patiently reasoning with the complainants, using sound arguments to convince, but never to expose them to ridicule.

In a community like this, including different sexes, classes, dispositions, nationalities, religions, it is difficult to satisfy all. But the good and loyal will always be found to predominate over the few evil spirits, or restless, intriguing busybodies. However this may be, it cannot be doubted that an intimate knowledge of character—experience of life—is especially valuable in discharging the duties, both medical and administrative, which devolve on surgeons-superintendent of emigrant ships. To be "all things to all men," and to have patience, tact, judgment, and a wide and varied experience, are amongst the necessary qualifications. A good foundation acquired at his *Alma Mater*, a public training, and practical experience and knowledge of character, are amongst the first desiderata in a surgeon-superintendent.

With reference to the mode of carrying out the medical duties of an emigrant ship, I have been informed that a surgeon of long experience under one of the colonial governments is in the habit of seeing the sick in the dispensary, which is usually fitted under the break of the poop—similarly to the "out-patient" practice of hospitals and dispensaries on shore. In the latter case there are usually verandahs, or waiting-rooms, for the accommodation and shelter of the patients; whereas on board ship a number of fresh cases, or a little crowd, would be exposed to weather, the ship's motion, etc., "waiting their turn to see the doctor." In going his rounds of inspection at an early hour the surgeon would prescribe for any case remaining in bed. When there is much sickness, there must also be much risk of exposure under such a system, especially, for instance, in the case of children in arms suddenly attacked with (say) inflammation of the chest.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE OF IDIOPATHIC ANÆMIA.

(Under the care of Dr. HABERSHON.)

[For the notes of the following case we are indebted to the report of Mr. T. F. Pedley.]

L. E., aged twenty-one, a clerk, was admitted on January 28. Since childhood he has had very fair health, though always rather thin and pale, and unable to take vigorous exercise. For some years has been liable to occasional slight attacks of epistaxis. His two sisters have suffered at the same age as his from symptoms said to be somewhat like the present illness. Patient states that the present illness commenced in the first week of last December, and that it appeared to have had a sudden starting-point from a pain in his left hip while out at a party. Since then he has been laid up at home. During the last six weeks he has suffered from aching and shifting pains in his thighs and back, which, however, were never very acute. He has had three slight attacks of epistaxis during the same period. He has also been troubled two or three times lately with a suffocative feeling in his chest. His appetite has not failed him as yet. He has never noticed any blood in his motions or urine; the motions have not been unusually dark.

State on Admission.—Patient is five feet ten inches in height, well developed and proportioned, though slightly built; thin; extremely pale, without being of either a greenish or earthen hue. Is hardly able to stand from extreme weakness; lies on his back; no cough or dyspnœa; appetite good; no vomiting; bowels regular, fæces natural. Hepatic dulness increased. Lung region resonant; breath-sounds natural; cardiac impulse diffused; cardiac area not increased; sounds clear; no bruit; pulse 138, small and compressible, regular. There is a pulsation all over the epigastric angle, most marked to the left of the middle line. A loud systolic bruit is heard all over the epigastrium with the lightest application of the stethoscope, but it is not heard with the unaided ear. Heart-sounds are heard behind, and especially well over the lower left intercostal spaces, where a diffused impulse is observed, which is continuous round the side of the chest with that in the epigastrium. Loud *bruit de diable* on each side of neck. Urine loaded with lithates, but otherwise normal. Temperature 100·8°.

January 29.—Temperature 99°; pulse 110; respirations 18. Has saturated two pocket-handkerchiefs with blood, which seems very poor in colouring matter.

30th.—Temperature 99·5°; pulse 120; respirations 20. Fainted when he got up to have his bed made. Evening: Temperature 100·4°; pulse 116; respirations 24.

February 3.—Patient says that he feels much better to-day. Was ordered the following mixture:—℞. Ferri et ammon. citr. gr. x., spt. ammon. aromat. ℥xx., spt. ætheris chlor. ℥x., ex aquâ ℥ss., ter die s.

5th.—Morning: Temperature 102·4°; pulse 130. He says he feels very well this morning; he did not feel faint on standing up. Evening: Temperature 100·6°; pulse 134

6th.—Morning: Temperature 98·6°; pulse 126; respirations 22. More epistaxis.

8th.—Reports himself as feeling very ill to-day. There is much retching and sickness.

10th.—Temperature 98·4°. Has another attack of sickness. Systolic bruit audible all over the cardiac region, loudest on right side of sternum.

11th.—A dense London fog. Patient is much worse to-day; was very sick in the night; takes very little nourishment; is very thirsty. He says he feels giddy and drowsy; he answers questions with hesitation and difficulty. Tongue brown and quite dry. Pulsation in epigastrium is much more forcible. 2 p.m.: Is quite unconscious, tossing himself about. Temperature 97·5°; respirations 40; pulse scarcely perceptible. 3 p.m.: About six ounces of blood drawn from the vein of a friend, defibrinated, and kept warm by means of hot water outside the vessel containing it, was transfused into patient's right basilic vein. The only effect of the operation was to make him breathe a little deeper, but he sank half an hour afterwards.

A post-mortem examination was made by Dr. Hilton Fagge. No glandular enlargement was found. The liver was healthy, and weighed seventy ounces. The spleen was firm, and weighed ten ounces. There was fatty degeneration of the musculi papillares of the left ventricle of the heart, and in left side of septum ventriculorum. There were ecchymoses on the visceral pericardium, especially on the left side; ecchymosis also on endocardium of left ventricle; the valves were healthy. The kidneys contained in their cortex small white bodies, mostly like spots, near the surface, but one was as large as a pea and vascular. Examined microscopically, it was found that fibrous tissue predominated in these little tumours. The brain and lungs were healthy.

ST. BARTHOLOMEW'S HOSPITAL.

CLINICAL REMARKS ON CASES OF ACUTE NECROSIS.

(By Mr. SAVORY.)

Amongst the subjects treated of by modern writers on surgery, necrosis is one that has received less attention than it deserves. Necrosis is of two forms—acute and chronic. By chronic necrosis is understood such an affection of bone as is constantly seen and operated upon with success in the young adult. Its ordinary course is, that from some cause or other a portion of bone perishes. As a result of this an abscess forms, which is either opened by the surgeon or breaks spontaneously. On a probe being passed through the opening, the dead bone is at once detected. A portion of bone having perished, new bone is formed; the dead portion becomes loose, and remains enclosed in a cavity formed by the new bone. The duration of each case depends on the working out of these results.

Acute necrosis presents features quite different from these. It is a disease the true nature of which has only been recognised in recent times. As here applied, the term "necrosis" is an unfortunate one, for it takes into account only the final result, and not the nature of the affection. It would be better to lay it aside, and substitute "ostitis."

Necrosis is commonest in the shafts of the long bones, because there the bone is densest, and consequently there the vessels are most readily strangled when inflammation takes place. Caries is commonest in the cancellous tissue, because there inflammation can run a longer course without the circulation being so far impeded as to cause death in mass. Dr. Wilks, of Guy's Hospital, years ago published a paper in the *Guy's Hospital Reports*, on "Deep-seated Abscess of the Limbs"; and the cases there mentioned, looked at with the more thorough knowledge of to-day, are evidently cases of acute necrosis, accompanied, as these always are, by deep-seated abscesses.

To say that periostitis is the cause of acute necrosis is only to tell a part of the truth; so, too, it is an error to affirm that osteo-myelitis alone is its cause. Inflammation of bone, accompanied by both periostitis and osteo-myelitis, is its cause.

With regard to the causes of ostitis: The extension of inflammation from surrounding parts is rare, but may occasionally take place. Scrofula, whatever that obscure constitutional condition may be, must be regarded as predisposing to it. Syphilis is said to be a predisposing cause; but this is very doubtful. The early age at which it occurs negatives the existence of acquired syphilis; and I have not seen the hereditary affection in connexion with it. Violence is a frequent cause; but the most frequent is exposure to cold and wet, as is exemplified in one of the cases upon which these remarks are founded. It is also very liable to follow where the vital powers of a patient have been much reduced by fever; thus, it sometimes follows scarlet fever, as it did in the second case brought forward.

A typical case has the following course:—A delicate child (for it is a disease almost confined to children) is seized with severe pain in the leg or thigh. On examination, we find an undefined swelling, the bone and surrounding parts being fused together. There are the symptoms of local inflammation and severe surgical fever. Rigors are present, there is considerable elevation of temperature, and increased frequency of pulse. In a few days obscure fluctuation becomes appreciable in the swelling, and if now an opening be made a probe can be passed down to dead bone. During these few days the constitutional symptoms increase in severity. The after-progress of the case is marked by profuse suppuration; hectic takes the place of the surgical fever; and the child may die of exhaustion or pyæmia, or may recover with the limb so far damaged that new bone has replaced the old.

The first case is that of a boy, Robert L., aged ten years. Five months ago, while playing, he strained himself. The strain was followed by aching pain and limping. In the first week in October he got wet; a week afterwards there were swelling and pain in the thigh. The whole limb was everted, and shorter than the other by an inch and a half. The swelling went on to the formation of abscess, which was opened on the 11th. The temperature at one time rose as high as 106°.

As a rule, acute necrosis in the child affects the entire shaft of a bone, the epiphyses escaping, because in childhood they are distinct from the shaft. If they do not escape, the case is desperate: the joint is sure to become involved. In the above case it is doubtful whether the head of the bone became affected with necrosis, or whether the dislocation resulted from disease of the hip which had previously existed. The history of the case rather bears out the latter supposition.

The second case is that of a girl, Louisa F., also aged ten years. After an attack of scarlet fever, followed by abscess under the side of the chin, the right knee is described as becoming affected with acute synovitis. This subsided in about three weeks, but some swelling remained on the inner side of the thigh, where also there was doubtful fluctuation. Poultices were ordered, an abscess formed and was opened, and dead bone was detected with the probe. Subsequently erysipelas supervened and spread from the wound upwards. This is usually the direction which the disease takes; but in this case, after spreading upwards for some time, it changed its course and went downwards.

When necrosis has taken place, the sources of new bone in the adult are the periosteum, the living remains of the old bone, and the surrounding soft parts. But for the regeneration of bone in the child one of these is lost, for the periosteum perishes from the fierceness of the inflammation. The specimen shown should be looked upon as one of the most valuable in the museum, for it shows this point very well. It is the clavicle of a child, which, with its periosteum, has entirely perished from this disease.

The epiphyses are capable of playing a very important part in the production of new bone. In two cases where the entire shaft had perished, I have seen its reproduction brought about by the growth of new bone upwards and downwards from them till it has met in the centre.

A few words may be said respecting the occurrence of pyæmia in these cases. As a cause of this, acute necrosis is second only in frequency to wounds; and I fancy pericarditis accompanies cases of pyæmia resulting from acute necrosis oftener than from other causes.

With regard to treatment, it is best to cut down at once, and deeply, to the bone. By doing this the infiltration of surrounding parts and the destruction of the periosteum are prevented. In practice, amputation is rarely performed to avoid pyæmia. So long as that is only a possible event it would not be justifiable, but when it threatens it would be right. Generally the indications for amputation depend on the part of the bone affected. So long as the shaft alone is diseased, so long we may hope to do without it; but when the epiphyses become involved, it only remains to choose the most fitting time for its performance.

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Medical Times and Gazette.

SATURDAY, MARCH 4, 1876.

THE EAGLEY EPIDEMIC.

At the monthly meeting of the Local Board of the Township of Turton, on the 24th ult., Mr. Robinson, the Medical Officer of Health, presented his report on the Eagley Epidemic. A great part of what he laid before the Board is already known to our readers, and especially the great main facts—that "the only persons suffering from the fever now raging" in the Turton district "are those who have been proved to have partaken of milk" from one farm (Hardman's or Mrs. Kershaw's farm); that "all who had partaken of it are affected in a greater or less degree"; and that the similar outbreak in Bolton is "confined to Mrs. Kershaw's milk consumers." As we anticipated would be the case, Mr. Robinson's main conclusions are—"First, that the milk from Mrs. Kershaw's farm was the vehicle in which the fever-poison was conveyed to all the individuals attacked; and, secondly, that the poison was introduced into the milk either by the adulteration of it with water containing fæcal matter or the germs of typhoid fever, or by washing the dairy utensils and milk-cans in water contaminated in like manner." Of any adulteration of the milk Mr. Robinson states that he had found no direct evidence, but the people in charge of the dairy had admitted that the dairy utensils had always been cleansed in the water which he found to be greatly polluted. Before remarking further on this part of the subject, however, it is to be noted that Mr. Robinson lays considerable stress on the condition of the milk furnished by one of the cows on the farm. At the very beginning of the inquiry, when the attention of Mr. Robinson, and his son Dr. James Robinson, was directed to the milk, they learned that "for some time it had been noticed to be unpalatable, and to give off a peculiarly unpleasant odour," and at this time they were called to Mrs. Kershaw's farm to see the patients, whom they found suffering in exactly the same way as their patients in Eagley. Dr. Robinson then inquired if all the cows were healthy, and "received an indignant affirmative"; but being requested to visit the cows himself, he found one "suffering from the after-effects of an accident during calving," and a sample of the milk from this cow, together with one obtained the day before from a patient under Mr. Robinson's care, were examined and found "to be very poor in quality, to be of a peculiar green colour, and to possess a very unpleasant smell and taste." Dr. Robinson had the courage to experiment on himself by drinking a small quantity of this milk, and, "as a consequence, felt slightly unwell for a few days." Some of the same milk was sent to Mr. Sergeant, the Analyst for Bolton, but it turned sour before any perfect analysis of it could be made. The cow was examined, as we have before informed our readers, by four veterinary surgeons, who all pronounced that she was in perfect health, and that the milk was good. Mr. Robinson, however, attributes this to a rapid improvement in the animal's health from the time when she was first observed; and he is convinced that the milk secreted by a cow in such a condition as this one then was "cannot be fit for human consumption," and that some unusual and abnormal symptoms observed in his patients were due to this particular milk.

Mr. Robinson has here incidentally introduced and touched on a question of great extent and great importance—viz., in what degree may states of unhealth and of disease in cows not only impoverish the milk secreted during such states, but render it actually injurious and "unfit for human consumption"? We at present possess very little, if any, real and reliable information on which to base an answer to such a question; but the matter is one that would well repay careful and extensive observation and inquiry, even should the results be negative only, provided they were thoroughly trustworthy. We are glad to add to our notes on this part of Mr. Robinson's report, that he considered, at the time he presented it, that all the milk on Mr. Kershaw's farm was "in a healthy condition, and fit for human consumption."

As to the water-supply of the farm, it was found that "its main dependence was upon water obtained from a small stream running close past the house, and collected in a tub near the dairy door," and that this water was used "for dairy and general purposes." The stream was traced as far as a new mill being built "at Cox Green"; and Mr. Robinson reports that "the workmen employed on the building, not having been supplied with proper petty conveniences, were compelled to make use of a field through which the stream flowed," in the bed and on the banks of which he found large quantities of fæcal deposits, by which the stream had been so polluted as to make it "totally unfit for any domestic purposes." The report further states that "all the water used for domestic purposes" at the farm was fetched when required from a pump, and that this water was found to be "quite pure and wholesome." Mr. Robinson adds that he was informed that for some time previous to the outbreak this special and select supply had not been used by Mrs. Kershaw; but it is not stated that she had resorted to the tub instead. It is clear, then, that the water used for washing the dairy utensils came from the polluted stream; and it is stated that "the Eagley milk-can," when examined, was found "in a filthy state"; but it will be observed that Mr. Robinson does not report the discovery of any case of typhoid fever from which the water-supply of the farm could have received the special typhoid infection. In so far, then, as that is concerned, the report is imperfect. To trace out fully and clearly this all-important point would, no doubt, require much more time and labour than could be given by Mr. Robinson and his son, fully occupied as they both were by the care of 150 fever patients in Eagley. But as Mr. Robinson's report was ordered by the Turton Board to be sent to the Local Government Board, it may be expected that

the latter will send down an inspector to follow up and perfect the local medical officers' investigations. In Eagley and Bolton together the number of sufferers in this outbreak is very little, if at all, short of 200, of whom twelve have already died. The causation and history of such a disaster ought undoubtedly to be made out as fully and exactly as possible. We are sorry to find that Mr. Robinson's hope—that this, which he terms "the eighth and largest epidemic that has been proved to have had its origin in contaminated milk," has ceased to spread—was premature, two fresh cases having since been reported. It is feared also that the fever is extending in Bolton. We certainly are not surprised that Mr. Robinson expresses a strong opinion in favour of an official supervision of all dairy farms, and we should be glad to share his "conviction" that legislation on the matter cannot be much longer delayed. At his instance the Turton Local Board have ordered their Nuisance Inspector "to make a minute inspection of the whole of the district of Turton as to its sanitary condition, and to take legal proceedings against all parties found polluting any stream of water within the district." But it seems strange that at the same time the Board decided that a report just received from the Sanitary Inspector, "in reference to the Eagley epidemic and the sanitary condition of the district," should not be published.

A MEDICAL MISSION.

Passing along Endell-street, we have more than once noticed, at the corner of Short's-gardens, a house usually with the shutters up, and labelled "Dispensary—London Medical Mission"; and on closer examination we have found a board intimating that attendance was given there three times a week. With regard to the operations of this institution we, however, remained in ignorance until we received the other day a Report of the proceedings connected with it, described as being the fourth of its kind, the study of which has excited some curious feelings in our mind.

The Report is issued by, and in the name of, Dr. Saunders, who styles himself *Director* of the institution, and it is written in that style which, we begin to fear, is inseparable from missionary reports of any kind. We are very unwilling to interfere with matters which are, in a certain way, beyond our sphere, but we cannot refrain from asking if the letters of the apostles were written in this style. Did those brave men, who centuries ago took their lives in their hands, and afar in heathen lands sought to spread the essentials of the glad tidings of great joy, send home such reports? We cannot help saying, however, that such writing as now lies before us is, to us, simply repulsive. Between true, sound, and even fervent religious feeling and such writing there is no necessary alliance—in fact, we should rather say they were antagonistic. We express ourselves strongly on this subject; for we have seen much harm done by such notions as are implied in certain parts of this Report being obtruded on the sick and ailing.

But to pass on: This is stated to be a Report; but there is no word as to whom the Report is addressed—whether to the public at large, to the subscribers, or to the director himself. We seek in vain in its pages for the names of any gentlemen constituting a board, committee, or governing body of any kind. Everything seems to rest in, and to depend on, the Director himself. On actual inquiry we find that there is no such thing as a committee; that there was some kind of a ruling body, but that it resigned, and thus left the whole and sole authority in the hands of Dr. Saunders.

Dr. Saunders is, we have not the slightest doubt, a highly honourable, but, we fear, a sadly injudicious man. He has served in the army with distinction, and has the privilege of writing C.B. after his name; but that is not enough for certain matters, as we shall presently explain. We find that during the thirteen months beginning December 1, 1874, and ending December 31, 1875, as much as £1273 odd had been received as donations and subscriptions, besides other sums not included in the above. The whole of this has been at Dr. Saunders' absolute disposal. Turning to the meagre balance-sheet offered by the Director of the Mission—a balance-sheet, moreover, which has not even been audited by a responsible accountant, but simply by a private individual (and, we take it, a personal friend), Mr. James E. Matthieson,—we find the following extraordinary item of expenditure:—"To Medical Missionaries, Private Secretary, Dispenser, Three Nurses, Porter, Housekeeper, Messenger, and Charwoman, £682 3s. 4d."

Here we have in one lump sum an expenditure amounting to more than half of the total income of the Mission from the sources above indicated; yet how are we to know where it has gone? Is such a staff as that above indicated necessary for a medical mission? Does a medical mission require the services of a private secretary? How much goes towards the expenses of the two medical missionaries? These are some of the questions we should like to see answered. Again, we repeat we do not for a moment question the integrity of Dr. Saunders, but he puts himself in a position no wise man would wish to see himself occupy, and this is, if possible, still further aggravated by a form of bequest which appears in more than one part of the Report. This runs as follows:—

"I give the sum of £———— for the use of the London Medical Mission, now in 13, Endell-street, St. Giles', to be paid free of duty out of such part of my personal estate as I can lawfully give to a charity before any other payment thereout; and I direct that the receipt of the director or physician for the time being of the Mission shall be a sufficient discharge for this legacy."

Surely this is putting too much in the hands of any irresponsible individual!

We take it from the Report already alluded to, and from the item of account given above, that Dr. Saunders is in the habit of paying himself a certain sum out of the funds of the Mission,—how much, from the way the accounts are stated, we cannot say; but when such an obscurity surrounds simple transactions, the mind is apt to enlarge them by a still larger halo. This at all events is clear to us: Dr. Saunders must have left the Army Medical Service with a good retiring allowance. If he desired to add to his income, there are many ways whereby this might have been done. If he desired to act as a medical missionary, he might have shown his disinterestedness by indulging in his whim gratuitously; but we confess that the combination of the two ends has in it something repugnant to our notions. Not, we repeat, that we suspect Dr. Saunders of purely mercenary conduct, but his example is of evil omen. The whole system of the Mission has a strongly and distinctly pauperising tendency, and should its conduct fall into unworthy hands it might be open to still greater abuse. Even as we write, a begging circular from a mission in Golden-lane has reached us. In it we are told of five hundred people being bribed to come together by the offer of a free breakfast every Sunday! The Medical Mission has hardly reached this point yet, but it is not far off it. Is it not possible to free these things from all semblance of humbug?

MODERN MEDICAL PROGRESS IN JAPAN.

In some recent numbers of the *Berliner Klinische Wochenschrift* are some interesting remarks on modern medical progress in Japan. They have been forwarded by Dr. Wernich, of Jeddo, to that journal, and may be summed up much as follows:—

The new Clinical Hospital at Jeddo, a temporary building, and destined hereafter to be replaced by a more solid

construction, occupies a space of ground 900 feet long and 670 feet wide, but the amount of space available for patients is much smaller than we should at first sight expect from such dimensions. There are only about 130 medical and the same number of surgical beds; the rest of the ground is occupied by the laboratories and theatres connected with the school, by the offices of the managing staff, the rooms for the medical officers, and the accommodation required for 400 students; and as all the buildings are, *more Japanico*, one-storeyed, they necessarily are spread over a large space of ground.

Wood is the material almost entirely used in the construction of the Hospital. The windows are of glass, except in those rooms which are exclusively used by Japanese, and there the window-panes are "glazed" with paper pasted over them. In consequence of the combustible nature of the buildings, all the scientific instruments and apparatus, as well as the collections of anatomical and pathological specimens, have to be kept in special fireproof-rooms apart from the rest of the Hospital. This is, of course, very inconvenient, and gives rise to a good deal of extra labour and running about.

"The wards of the Hospital, with few exceptions, are," says Dr. Wernich, "all too low, too dark, and too much dependent on chance for their proper ventilation." Too much air blows in in winter through the cracks and openings around doors and windows, while in the summer it is difficult to get air enough. Three causes make ventilation bad, or, rather, intensify it when otherwise defective. First, everyone—patients as well as nurses—use braziers containing hot ashes (*shibatschis*) to warm their hands, and the smoke from these naturally pervades the air of the ward. Secondly, everyone (even the patients, unless they are in immediate contact with the doctor) smokes tobacco! Thirdly, "water-closets," or latrines, are, after the fashion in Japan, "erected in inconceivable numbers in all possible and impossible places" in the Hospital!

According to the old system, the patients used to lie fully dressed, or else clad in a padded robe, *on the ground*, and the physician had to stoop over or kneel by anyone whom he wished to examine—rather back-aching work if the examination were a long one. Now beds have been introduced, but a number of trifling ceremonies have to be gone through if a patient has to assume any attitude other than his ordinary one; and if he has to sit up in bed and bend forward for his back to be percussed, he has to be specially instructed previously by the nurse! The Japanese have a great idea of luxury and comfort, and furnish themselves with all kinds of books, newspapers, flowers, etc., to make their time in the Hospital pass pleasantly. The nursing seems to be wonderfully well managed, and every bad case has a special nurse to attend on it day and night; nor do the members of the numerous staff interfere with one another in discharging their duties, although there may be six or eight nurses and as many patients in one quite moderate-sized ward. Every ward has allotted to it a male inspector, who looks after the instruments, the furniture, etc., and exercises a general supervision over the patients. Some of the Japanese customs are peculiar. If a sick child enters the wards, a whole family comes with it—two or three female relations, and several real or pretended "brothers" and "sisters"—who take their station by the patient's bed, and there remain until he gets well. A government official, whose wife had had ovariotomy performed, transferred his establishment bodily to the Hospital, and waited on his wife till she was out of danger, without at all compromising himself with the nurses or physicians. The better class of patients, who chiefly seek the Hospital for electrical treatment, always bring one or two servants with them, who share their room and remain with them until they go out. "Visiting days" appear to be at present not the *mode* in Japan. The friends of patients come in to see them at all hours, even during the time when the doctors are on their rounds or giving clinical instruction, but they are said to behave so quietly and with such politeness that they give rise to much less interruption than would otherwise be the case. This politeness manifests itself in various ways, of which one example will suffice. If a patient is ordered by the doctor to suspend his smoking even for an hour or two, he frequently either leaves the Hospital or else (if an out-patient) refuses to come in. He does not, however, make the smoking-grievance the ground of his refusal, but either states that "his father is dead," or that "he has some urgent business to attend to which will occupy him several days."

We fear that English hospital patients are scarcely so conversant with social amenities as the Japanese are, but on the whole they possess other good qualities which make up for any deficiency on the score of politeness.

THE WEEK.

TOPICS OF THE DAY.

Last week a deputation of Scotch members of Parliament waited upon the Chancellor of the Exchequer, to make a representation on the subject of the Government grant for medical relief in Scotland. Mr. McLaren, who introduced the deputation, said the most important point was that whereas England got for medical relief a grant in all of £271,000, Scotland received only £11,000. He contended that Scotland was entitled to a larger grant. The Chancellor of the Exchequer said the deputation had raised a much wider question than the adequacy or the inadequacy of the grant to Scotland. It should be recollected that if they applied the principle upon which the English grant was given, they must also apply the conditions attached to it. If it was the desire of members connected with Scotland to reopen the question, he was quite prepared to undertake the task, in conjunction with the Lord Advocate and the officials of the oard of Supervision in Edinburgh.

At the annual meeting of the governors of the Huntingdon County Hospital, held on the 22nd ult., under the presidency of the Earl of Sandwich, it was stated that the unwearied exertions of the medical officers, the matron, and the whole staff of the establishment to meet the pressure caused by the terrible railway collision at Abbot's Ripton had been gratefully acknowledged by the sufferers themselves, their friends, the coroner's jury, and the directors of the Great Northern Railway Company. Over £100 had been presented in donations from relatives and friends of the injured and others, and the coroner's jury had presented the whole of their fees to the funds of the Hospital. In accordance with a resolution passed at the meeting, the chairman conveyed to the matron of the Hospital the special thanks of the governors for the kind attention she had bestowed on the sufferers. It is further announced that the directors of the Great Northern Railway have sent a cheque for 100 guineas as a special donation to the Hospital, with an acknowledgment of the valuable aid rendered by that institution on the evening of the sad calamity at Abbot's Ripton.

The expedition against the Malays has afforded a striking instance of what may sometimes be done in tropical climates without injury to health, even where very slight sanitary precautions are enforced. From a despatch recently received from Admiral Ryder, it appears that the heavy work of the Naval Brigade employed in the Perak consisted in poling the boats, laden with guns and ammunition, for many consecutive days under a broiling tropical sun, where oars were of no use against a current running at the rate of four knots an hour; and in carrying guns, rockets, and ammunition, in addition to their own accoutrements, through the jungle, over roads so

nearly impassable that only seven miles could be gained each day. For nearly a month the brigade under Captain Buller had nothing to eat but preserved meat, supplemented occasionally by wild buffalo flesh, no vegetables or bread; the men were constantly wet through by rain, they had frequently to wade through water and mud over their waists. During ten days' advance they had no cover of any kind, but slept in the open. Captain Buller attributes their entire immunity from any disease previous to the attack on Kintra to his having fortunately been able to provide them with waterproof sheets, the great importance of which in a tropical campaign was pressed on his attention previous to his departure from Shanghai some months before.

Mr. E. S. Bignold, the Norwich City Coroner, has held an inquest in Norwich Castle on a prisoner, the second who has succumbed to the outbreak of small-pox which has recently occurred in the prison. The clothes of the deceased were burnt immediately after his death, and the body was at once interred after the conclusion of the inquest, which resulted in a verdict of "Death from natural causes." There are still twelve prisoners suffering from this disease in the prison.

It is publicly announced that the proposed arrangements of the authorities of the London Hospital for the forthcoming Royal visit have been submitted to her Majesty, who has been graciously pleased to approve them. Sir Thomas Biddulph, accompanied by the Rev. J. S. Rowsell, deputy chairman to the Hospital, recently paid an official visit to the building, going over the whole of the proposed route, and the preparations for the Queen's reception were carefully explained to him. The residents are exerting themselves strenuously to provide an effective decoration of the route from the City to the Hospital, and her Majesty's coming is eagerly looked forward to by all classes.

A proposition which certainly deserves serious consideration was brought forward at a recent meeting of the Marylebone Vestry. Upon this occasion. a report was presented from the Sanitary Committee, calling upon the Vestry, as the guardians had refused to allow post-mortem examinations of bodies to be made at the workhouse mortuary, to erect in the Paddington-street burial-ground a post-mortem house, inquest-room, waiting-rooms for witnesses, etc., at a cost of £950. It was resolved to forward the report to the guardians. We have before now pointed out the desirability of utilising the dreary and disused burying-grounds of the metropolis for this purpose, and we trust that the St. Marylebone authorities will set an example to other parishes by adopting the scheme now placed before them.

At last week's meeting of the Metropolitan Board of Works the General Purposes Committee brought up a further report that the Board do, subject to the passing of an Act of Parliament, agree to pay a sum of £5000 in consideration of the surrender by her Majesty's Government of a strip of land forming a portion of the ground at present occupied by the Knightsbridge Barracks, for the purpose of widening the road at that point; the Board, in addition to the payment of the above sum, undertaking the works of making up the roadway. In moving the adoption of the report, it was explained that the space given up amounted to 8900 feet, and the land had been valued at the price of garden, not building land. An amendment was put to the meeting, which, after some discussion, was negatived by a majority of twenty-three to thirteen, and the report of the Committee was adopted. Matters having been thus satisfactorily arranged, we may shortly expect to see an improved thoroughfare between Knightsbridge and Kensington, and—what is of even more importance—sanitary barracks erected as a substitute for the present objectionable building.

It appears that, notwithstanding the stringent rules and regulations in force for the prevention of scurvy on board sea-going vessels, the Board of Trade authorities have ample work provided for them in checking evasions of the law in this matter. Thus, whilst the inquiry is still proceeding as to the cause of an outbreak of this disease on board the *Royal Sovereign*, we now learn that at the Liverpool Police-court, last week, Captain Gourley, of the British ship *John Peacock*, was fined £30 and costs for having failed to provide or cause to be kept on board that vessel a sufficient quantity of anti-scorbutics and medical stores. In consequence of the want of these, the greater portion of the crew were attacked by scurvy while the ship was on a voyage from Bassein to Liverpool. The prosecution was instituted by the Board of Trade. In reference to the outbreak of scurvy recently reported to have occurred on board Messrs. E. Bates and Son's ship *Bremen*, of Liverpool, the *Times* states that the facts of the case were published some months ago, when a court of inquiry, under the authority of the British Consul, was held at San Francisco. The Court ascribed the rapid spread of the disease, in this instance, to the disinclination of the black members of the crew to take lime-juice or compressed vegetables. The provisions, with the exception of one cask of beef, were reported to be of extra good quality; and though the first outbreak was said to be connected with an insufficient supply of fresh vegetables at the outset of the voyage, the stock of these articles was found to have been ample.

We regret to hear that typhoid fever has reappeared in the *Cornwall* training-ship, a servant and one of the boys having been attacked by the disease. The latter case has been removed to the *Dreadnought* Seamen's Hospital. Following so closely on the former severe epidemic, when eighty cases were reported to have occurred out of 200 persons on board, grave doubts will be engendered as to the sanitary condition of the vessel, and her fitness for the purpose for which she has been selected.

Sir Joseph Fayrer is reported to have had a very narrow escape whilst out elephant-hunting with the Prince of Wales. Sir Jung Bahadoor was exhibiting to the Prince and his suite the method adopted in Nepaul of capturing wild elephants by means of tame ones. Whilst riding at full speed in chase, Sir Joseph's horse leaped into a disused elephant pit, ten feet deep; but, most happily, neither horse nor rider broke a bone, and Sir Joseph saw the rest of the hunt from an elephant's back.

The *Army and Navy Gazette* says—"Great care has been evinced in providing the Duke of Edinburgh with an efficient medical man, and before the proper man was fixed upon the list was waded through, and in deciding upon Dr. Cotton it was felt that great credit would be done to the service, and a thoroughly accomplished man was entrusted with the discharge of the medical duties of H.M.S. *Sultan*." If our contemporary's information is correct, the statement seems to convey a remarkable compliment to the Naval Medical Service.

At the meeting of the Metropolitan Asylums Board, held last week, attention was called to the large increase of fever cases received into the Homerton Hospital from the Whitechapel district, and it was explained that the health authorities were fully alive to the fact of the spread of typhus in that district, and were doing all in their power to ascertain the cause of its prevalence.

At the *levée* held on Tuesday afternoon by his Royal Highness the Duke of Edinburgh, on behalf of her Majesty, the following members of the medical profession were presented, viz.:—Sir James Alderson and Dr. Arthur Farr, on appointment as Physicians-Extraordinary to her Majesty; Deputy Inspectors-General William Loney, F.R.C.S., R.N., and S. S. Dalzell Wells, R.N., on promotion; Staff-Surgeons Mark Anthony Harte, R.N., Stephen Sweetman, R.N., and John N. Stone, R.N., on promotion; and Mr. Arnold Royle,

M.R.C.S., on appointment as Surgeon-in-Ordinary to H.R.H. Prince Leopold. The *levée* was also attended by Dr. William Cormick, Dr. Walter Dickson, Dr. Wilson Fox, and Dr. Leonard, R.N.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION, 1876.

A MEETING, convened by circular, was held at the Pavilion, Brighton, on Tuesday, February 22, to consider and report to the Arrangement Committee in London on various subjects named in a printed *agenda;* the chair being taken by Dr. Kebbell, who read a letter from Sir Cordy Burrows regretting his absence from ill-health. Dr. Hall proposed, and Mr. Spooner seconded—"That all gentlemen present be elected as the General Committee, with power to add to their numbers." Dr. Withers Moore proposed, and Mr. Bramwell seconded, the amendment—"That, inasmuch as the Committee of Council have in their recent appointments of readers of addresses ignored the claims of the profession at Brighton, it is not expedient for the medical men of this town to take any official part in the forthcoming meeting in August next." The amendment was carried by a large majority. Mr. Oldham proposed, and Mr. Murray seconded—"That the secretaries be requested to send a copy of the resolutions just passed to the Committee of Council, the Arrangement Committee, and to the following journals for insertion:—*The Lancet*, *Medical Times and Gazette*, and *British Medical Journal*." This was also carried, and a vote of thanks to the chair ended the meeting. The following gentlemen were present:—Drs. Kebbell, Moon, Taaffe, Withers Moore, Parsons (from Dover), Hollis, Hall, Barrett, Tanner, and Corfe; Messrs. Oldham, Murray, Spooner, Saltzman, Couling, Humphry, Blaker, Penfold, Edwards, Nichols, Hodgson, Langdale, Cooper, Winter, Browne, M. Allen, Bramwell, Oldham, jun., Giffard, and Seymour Burrows. A special meeting of the Committee of the Council of the Association was called, and met in London on Tuesday, the 29th ult., to take into consideration the above resolutions, when it was resolved—"That as the next annual meeting of the Association must, by the laws, be held in Brighton, and it would now be impossible to arrange for a successful meeting in any other locality, the Committee of Council, whilst regretting the course adopted by certain members of the profession in Brighton, still believes that a successful meeting will be held there, and will gladly receive the co-operation of those members of the profession in Brighton who are ready to assist in making the required arrangements for the annual meeting."

The following are the observations of the official *Journal* of the Association on this point:—

"In reference to this subject, we are requested to say that the Committee of Council desire to call the attention of the members of the profession at Brighton to the fact that a member of the local branch was selected to deliver one of the addresses; and that in towns not possessing a medical school it has not been the custom of the Association to select more than one of the readers of addresses from the members of the local branch.

"It will be found that, in 1860, at the meeting at Torquay, none of the three addresses was delivered by members of the profession resident in Torquay. At the meeting at Leamington, the two addresses were delivered by members resident in Dublin and Edinburgh; and at the Plymouth meeting, in 1871, by members resident in London and Edinburgh. It is only at great medical centres of education that more than one local orator has been appointed. In the five sections of medicine, surgery, obstetrics, public medicine, and physiology, addresses are now delivered by the presidents at the opening of the sections. The whole of these honourable offices, and those of the vice-presidents, were, on the present occasion, placed unreservedly at the disposal of the Brighton Arrangement Committee; and in the distribution of many of these posts, positions of honour and scientific eminence and value are open, which the most distinguished men in all parts of the kingdom have felt honoured in accepting.

"The Committee of Council have, in fulfilling their duty as a body holding executive functions on behalf of an Association extending over the whole kingdom, desired in their arrangements to afford ample verge and space for the cordial recognition of their professional Fellows in the South-Eastern Branch and in Brighton. It is a source of great regret to them that, in lieu of official communications addressed solely to them, their efforts have been met by a public vote of censure passed without previous communication with them. The explanations here tendered may, it is hoped, place the matter in a different point of view before those who have expressed disapproval of the course pursued by the Committee of Council."

PROPOSED LEGISLATION FOR THE REGULATION OF COWSHEDS AND DAIRIES.

DR. DUDFIELD, the indefatigable Health Officer for the Kensington District, having been mainly instrumental in the successful issue of the Metropolitan Slaughter-houses Act, has now turned his attention to a kindred subject—the cowsheds. Such revelations as have recently come to light with reference to the grossly insanitary condition of most cowsheds, and the ready means by which epidemics of typhoid, scarlet fever, etc., are propagated under such conditions, renders it most imperative that legislation should not be longer delayed for the purpose of carrying into effect systematic inspection of these buildings. Dr. Dudfield has framed a code of by-laws on the model of the Slaughter-houses Act, with a view to their being accepted or modified by the Metropolitan Board of Works, should the Government see fit to legislate in this direction. We subjoin an abstract of the principal suggestions made by Dr. Dudfield in his paper read before the Society of Health Officers, as follows:—"The cowshed to be detached and ventilated by sky- or side-lights; the walls and woodwork to be covered with an impervious material to the height of five feet from the floor; the paving to be of brick or concrete, sloping towards a properly trapped gully for the reception of sewage in the yard outside. The water-tank to be of slate or metal, provided with a 'warning-pipe' not connected with the drain, and fixed not less than six feet above the floor-level, and so arranged that every part of the shed may be effectually flushed with pure water. The food to be stored in a properly constructed receptacle outside the shed; as also the refuse and dung, which must be carted away daily. No alteration to be made in the construction of the sheds without previous consent of the Board. No privy, cesspool, or stable to communicate with the cowshed. The air-space for each cow to be at the rate of not less than 800 cubic feet; the stalls to be not less than four feet in width. Every part of the premises to be kept thoroughly clean and in good repair, and no other animals to be kept in the same shed with the cows. Newly purchased cows to be kept in a quarantine shed for a few days and those suffering from contagious disease to be moved to an infirmary shed, and information sent to the proper authorities. The milk yielded by diseased cows to be poured down the drain in communication with the sewer. No person having an infectious disease, or living in a house where such disease exists, to be allowed to enter the cowshed or dairy, or to assist in the conduct of the business." Similar rules have been framed to insure cleanliness of walls and receptacles, etc., for the guidance of those engaged in the business of a dairyman or purveyor of milk.

THE WORKING OF THE CONTAGIOUS DISEASES ACTS IN DEVONSHIRE.

ANTICIPATING the annual return showing the working of the Contagious Diseases Acts for 1875, the *Western Morning News* gives some interesting statistics respecting the operation of

the Acts in Devonport, Plymouth, and Stonehouse. The Acts came fully into force in these towns in 1868, in which year no less than 1503 women were placed upon the register, of whom 809 remained on the register at the end of the year. The following year 1189 were placed upon the register, being a decrease of more than 300. Since 1859 the number of prostitutes dealt with has steadily decreased, until in 1874 there were only 703 on the register. Last year the total number of known prostitutes in these towns did not reach 700, and at the end of the year the number remaining on the register was under 450. The returns respecting the amount of disease among the women submitted to examination also show most satisfactory results. The percentage of disease to examinations in 1868 was 50·14, but in 1869 it fell to 16·53. Since 1869 there has each year been a steady decrease in the amount of disease, the percentages being 8·35, 7·61, 7·60, 6·41, 6·05, and last year only a little over 5. So strictly are the Acts carried out in the above towns that venereal disease would scarcely be known were it not that it is constantly imported by prostitutes who migrate from neighbouring towns. Juvenile prostitution in the "Three Towns" (Plymouth, Devonport, and Stonehouse) is now almost unknown. When the Acts first came into operation there were more than 600 prostitutes in the "Three Towns" under eighteen years of age; in 1874 there were only two. The reformatory influence of the Acts still continues very marked. Last year, including readmissions (for some of the women were attacked by disease more than once), 450 cases were admitted in the hospital. In nearly 100 instances the women on being discharged from the hospital returned to their friends, or adopted some other mode of gaining their livelihood, and were removed from the register. These results were, it is believed, entirely due to the good influences that were brought to bear upon them whilst patients of the hospital. Not only are the Acts the means of reclaiming large numbers of prostitutes, but, what is even better, they prevent many young girls from entering upon a life of shame. The officers engaged in carrying out the Acts in the "Three Towns" have the brothels always under supervision, and every woman unknown to the police who is seen to enter such a house is followed, spoken to, and warned of the consequences that will follow if she persists in leading a life of prostitution. Young girls are not only warned, but are, if their friends can be discovered, taken to them forthwith. In this way it is believed that more than 200 girls were last year prevented from becoming prostitutes. When such splendid results are obtained only in a limited area under the working of the Contagious Diseases Acts, it is difficult to understand why such virulent opposition is made to them by those who profess to be animated by a desire to promote the interests of morality and the welfare of their fellow-creatures.

"NO MORE OVARIOTOMY."

Under the above startling title we find a note in the *Surgical Centralblatt* for February 12, taken from the *Wiener Med. Presse*, 1875, No. 52, by Dr. Semeleder. About two years ago he was informed that a lady of his acquaintance suffering from an ovarian cyst, who had been much relieved in Dresden by acupuncture (? galvanopuncture), had been ultimately cured in Vienna by the same treatment. Since that time he has tried it in three cases:—

1. A young lady aged eighteen, who had a soft fluctuating ovarian tumour, originating on the left side and extending three centimetres above the umbilicus, was subjected to galvanopuncture. In four months the diameter of the abdomen two inches below the umbilicus was reduced from ninety-six centimetres to ninety-two centimetres; and in two months more the cure was completed.

2. A lady twenty-four years old, and the mother of two children, had a tumour in the lower part of the abdomen on the left side, as large as the head of a child two years of age. When she had been under treatment for two months the patient was cured, the remains of the cyst being hard, and of the size of a small apple.

3. A woman forty years of age, with a tumour reaching up to the umbilicus, had so far recovered at the end of six weeks of the treatment that its continuance was considered unnecessary.

No unpleasant consequences occurred in any of these cases, and none of the cysts have refilled. The author considers that the action is the same as that which occurs when the poles of a battery are placed in an albuminous fluid—viz., clotting and thickening at the positive pole, and liquefaction at the negative. He considers the method equally applicable to multilocular and unilocular cysts. He does not give an exact account of his method of procedure, but each sitting was of short duration. He anticipates equally favourable results in the treatment of hydatid cysts on this plan.

A MEDICO-LEGAL QUESTION.

On last Friday week evening two men engaged in what is believed to have been a friendly wrestling match in a public-house in one of the back streets of Dublin. Suddenly one of the combatants became insensible, and died before he could be conveyed to the Meath Hospital. At an inquest held at the City Morgue next day, Dr. R. W. Egan deposed that he had made a post-mortem examination of the body of the deceased. Death had resulted from the rupture of an aneurism which involved the descending portion of the aorta. There were some slight marks on the body, a superficial wound on the left leg, and an abrasion on the forehead. There was also a slight cut on the back of the head. The excitement and the exertion of wrestling, the violence of the falls on the ground, would account for the rupture of the aneurism, which was of long standing. A verdict was returned in accordance with the medical evidence. In connexion with the above a nice medico-legal question arises as to the liability of an indictment for manslaughter. In the present instance, the existence of an aneurism and the excitement of the circulation, consequent on wrestling, which led to rupture of the aneurismal sac, might fairly be regarded as the cause of the man's death. This was the view taken by the coroner's jury, who thus practically acquitted the deceased man's rival from any blame in the matter. Meanwhile the case came before the magistrate of the day at the Southern Divisional Police-court (Dublin), the result of the inquiry there being that the survivor in the wrestling match was sent for trial at the next Commision on a charge of manslaughter.

DAMP HOUSES AND ILL-HEALTH.

In his report for 1875, Dr. G. E. Hyde, Medical Officer of Health for the Martley Union (Worcester), states that in the parishes comprising the district the labourers' cottages are very often really unfit for habitation; many are overcrowded, ill-constructed, often dilapidated, and altogether unfit for decent living. Damp houses, he observes, are a constant cause of ill-health, and several cases of permanent disability to work have come under his notice which have been caused by residence in damp dwellings. This is a subject that deserves the best attention of sanitary authorities in rural districts, if only on economical grounds; for many labourers become prematurely aged and incapacitated for work, and are thus a burden on the rates, entirely through rheumatism and other affections caused by living in damp houses.

SINGULAR OUTBREAK OF DIARRHŒA IN A SCHOOL.

An epidemic of an alarming character is reported to have attacked the inmates of the Manchester Warehousemen and Clerks' Orphan School, at Cheadle Hulme. A few days ago 138 out of 172 children, besides nine out of twenty-six officers

of the institution, were seized with diarrhœa, and one child died. At an inquest held last week a report was submitted of the result of an analytical examination, by Messrs. Crace-Calvert and Thompson, of the butter used on the evening before the outbreak. This report stated that the butter was "distinctly rancid"; but Dr. Siebold, who had analysed a sample of butter "from the same assignment, but out of another firkin," said he had found no deleterious element in it, nor anything which would be likely to cause diarrhœa. The jury found that the deceased had died from natural causes, and that "there was no evidence of dangerous elements existing in the food." It is stated that a number of the children of the school are at present suffering from scarlet fever.

GIANT-CELLS IN HEALTHY GRANULATION TISSUE.

THE *Centralblatt für Chirurgie* takes a paragraph from *Virch. Arch.*, Bd. lxv. p. 120, by A. Jacobson, telling how he found giant-cells in the examination of normal granulation tissue which he had removed in small morsels from wounds of the soft parts of men and animals. After an elaborate discussion of the differential diagnosis of giant-cells from transverse sections of lymph-vessels, clots in blood-vessels, etc., he brings forward one interesting observation, that the giant-cells are found in greatest abundance in persons of a very pale complexion. Anæmia and weakness are, therefore, probably the principal cause of their development in granulations. His conclusion may, perhaps, appear scarcely warranted by the premises: "These facts may perhaps afford anatomical grounds for the explanation of the predisposition of weak and anæmic persons to tuberculosis, if there is any truth in the assertion of Schüppel that 'from its very commencement every tubercle contains a giant-cell, and in fact the whole tubercle is developed out of one.'"

A WARNING TO STUDENTS.

THE following remarks have been circulated by the authorities of the Royal College of Physicians:—"The examiners feel it to be their duty to inform the College that candidates for its licence present themselves for the past examination very imperfectly prepared, as a rule, on the subject of chemistry in its applications to pharmacy, pathology, and toxicology; and some have been rejected, on account of their ignorance on this subject, whose attainments in other respects were satisfactory. The examiners venture to suggest that the College might with advantage take some step to make generally known to students at the several medical schools the imperative necessity for candidates for the College licence, in order to avoid disgrace and disappointment, to present themselves as well prepared on the subject of chemistry in its applications to pharmacy, pathology, and toxicology, as on the other subjects of the pass examination."

GLASGOW ASSOCIATION FOR THE RELIEF OF INCURABLES.

THE first annual meeting of the Association for the Relief of Incurables was held on the 25th ult., under very favourable auspices. From the report of the directors it appears that the contributions for the purchase or erection of an institution and cottage homes, up to December 31, 1875, amount to £23,362; in addition to which the directors anticipate receiving the sum of £2000. The report also refers to the relief of incurables in their own homes. At first this relief was distributed by means of missionaries, but latterly a special officer was appointed for this duty. The pensions average ten shillings per month. As many as 285 outdoor patients have been on the roll at one time. In the meantime it has been considered prudent to limit the expenditure on out-patients to £1200 per annum. We understand that Broomhill Home, which is to contain upwards of 200 bedrooms, will be ready early in the ensuing summer.

THE MEDICAL DEFENCE ASSOCIATION.

A GENERAL meeting of the members of the Medical Defence Association was held at Exeter Hall on Tuesday last, when a code of laws for the future government of the Association and its branches was agreed to. The only point on which much difference of opinion prevailed was on the question of the amount of subscription to be paid to the parent Association by members of branches. Some members were in favour of requiring the whole of the annual subscription to be paid over to the general fund, but after a long discussion it was decided that members of branches should pay two shillings and sixpence only to the general fund, the remaining portion of the subscription being applied towards the expenses connected with the working of the branch. At the same meeting, Dr. J. H. Paul, of The Terrace, Camberwell, was elected a Vice-President of the Association.

THE INDIAN MEDICAL SERVICE.

AT the recent competitive examination of candidates for her Majesty's Indian Medical Service, forty-four candidates competed for twenty-three appointments, and all were reported qualified, with one exception, he having retired on account of illness. The following are the names of the successful candidates:—1, A. Tomes; 2, J. Maitland; 3, G. H. Peevor; 4, A. K. Stewart; 5, S. H. Dantra; 6, W. A. Mawson; 7, G. B. Meredith; 8, D. I. Macdonald; 9, G. L. Walker; 10, J. Macgrigar; 11, B. Doyle; 12, W. H. Cadge; 13, W. G. H. Henderson; 14, H. W. B. Boyd; 15, C. L. Swaine; 16, H. Hamilton; 17, R. Cobb; 18, K. A. Dalal; 19, A. E. R. Stephens; 20, M. H. Smith; 21, P. J. Farrell; 22, J. Hunter; 23, N. G. Halpin. Mr. Arthur Tomes, who stands first on the list of successful candidates, was a distinguished pupil of the Middlesex Hospital. He is a relative of the well-known dental surgeon, Mr. John Tomes, F.R.S.

CHARING-CROSS HOSPITAL.

EXTENSIVE alterations and improvements are now being carried out at this Hospital, which will involve the expenditure of several thousands of pounds. At present only a limited number of urgent cases are admitted, but after the 15th inst. it is intended to close the Hospital entirely. It is hoped that the works will be completed so as to re-open the wards for urgent cases at the commencement of the summer session on May 1.

PARLIAMENTARY.—NOXIOUS VAPOURS — VIVISECTION — VACCINE LYMPH—FOOD AND DRUGS ACT.

IN the House of Lords, on Thursday, February 24,

Lord Winmarleigh presented a petition from the manufacturing districts, asking for an amendment of the Acts relating to noxious vapours. The petitioners, being for the most part manufacturers, had no desire to interfere with those industries. It was felt that science could find a remedy for a state of things which was injuring health and destroying vegetation in large districts. He knew a property which had been all but destroyed by those vapours. The trees in it were like a forest of masts even at midsummer, and whereas formerly there were oaks on it worth £100, it would be difficult now to find in or anywhere near it an oak or other tree worth 100 shillings.

The Duke of Richmond and Gordon said that he knew the property to which reference had been made, and could testify that it was in a deplorable state, but he could not promise the production of any Bill to deal with it at a very early period.

In the House of Commons,

Mr. Cross, replying to Mr. Stansfeld, said that the report of the Vivisection Committee should be laid before the House as soon as possible after it had been submitted to the Queen. There had been some delay, for which he could not account, in the printing of the book, and it was with the greatest difficulty that he obtained one or two copies for his own use.

On Tuesday, February 29,

Sir M. Hicks-Beach, in reply to Mr. Meldon's inquiry

respecting the Cow-pock Institution, said that the Institution referred to was a private one, and therefore he could not say how far it was possible to put it under the control of the Irish Local Government Board; but if the grant should be increased in order to enable vaccine lymph to be supplied gratuitously in Ireland, he thought the administration of such increased grant should be under the control of that department, and he was now engaged in a correspondence with a view to effect that object.

Mr. Watkin Williams gave notice that on Thursday next he would ask the President of the Local Government Board questions with regard to the neglect of local authorities in a large number of places to appoint analysts under the Sale of Food and Drugs Act, etc.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual Meeting, Wednesday, March 1.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

The report already issued was taken as read. The yearly report of the President and Council was next laid before the meeting. This showed that the total number of Fellows of the Society amounted to 650; but that the number of resident Fellows, from whom the main portion of the income was derived, remained much as usual. A committee had been appointed to inquire into the distinctions between croup and diphtheria, consisting of Drs. Dickinson, Gee, Fagge, Payne, Semple, and Mr. Howse, with Dr. John Harley. It was also reported that a new catalogue and a new index were in course of preparation.

Dr. Semple proposed, and Mr. Howard Marsh seconded, the proposal that the report be adopted by the Society; which was accordingly done.

Dr. Tilt proposed, and Dr. Turner seconded, the motion that in future the author of each paper published in the Society's *Transactions* should be entitled to fifty copies of it, instead of twenty-five as heretofore; this, too, was agreed to.

The President next, in a speech of no ordinary power—clear and trenchant, yet gifted with the delicacy of thought and manner for which his addresses are so remarkable—proceeded to survey the losses the Society had sustained during the year gone by. These included such men as Dr. Robinson of Newcastle, Mr. J. D. Hill, Mr. Sercombe, Sir Charles Locock, Luigi Porta, Mr. George Cooper, Dr. W. Richardson, Dr. Beaumont, Dr. Dickson, Dr. Squarey, Mr. G. G. Gascoyen, Dr. Andral, and others. We despair of being able to give the few attractive words of comment added by the President to the details of lives otherwise commonplace enough.

In characteristic speeches Mr. Charles Hawkins proposed, and Mr. Heath seconded, a vote of thanks to the President for his address. This, too, was unanimously and enthusiastically adopted by the meeting.

Mr. Brodhurst moved, and Dr. Begley seconded, a vote of thanks to the retiring office-bearers; to which Mr. Callender replied.

A special vote of thanks was given to Mr. Cooper Forster, the retiring secretary. This was proposed by Mr. Spencer Wells, and seconded by Mr. T. Smith.

In the course of his reply, Mr. Cooper Forster said that in reality the greater part of the thanks was due to Mr. Whcatley, and he, for his part, would like to propose a vote of thanks to that most worthy official.

Taking up a playful challenge, Dr. Barclay proposed, and Mr. Charles Hawkins seconded, a vote of thanks to Mr. Whcatley.

This proposal, which none know better than we do how amply it was merited, after a few commendatory words from Dr. Sibson, was promptly carried, and the meeting adjourned.

During the evening the ballot for officers for the ensuing year went on, with the result of electing the following:—*President:* Sir James Paget, Bart., D.C.L., F.R.S. *Vice-Presidents:* Edward Ballard, M.D.; Richard Payne Cotton, M.D.; Charles Brooke, M.A., F.R.S.; John Marshall, F.R.S. *Treasurers:* William Wegg, M.D.; John Birkett. *Secretaries:* John Harley, M.D., F.L.S.: John Whitaker Hulke, F.R.S. *Librarians:* Francis Sibson, M.D., F.R.S.; Timothy Holmes. *Other Members of the Council:* Lionel Smith Beale, M.B., F.R.S.; Wilson Fox, M.D., F.R.S.; Edward Headlam Greenhow, M.D., F.R.S.; Graily Hewitt, M.D.; William Ogle, M.D.; Richard Barwell; John Couper; Arthur Edward Durham; George Gaskoin; Thomas Smith.

THE TRANSMISSION OF SYPHILIS.(a)

With our present knowledge of syphilis—not only of acquired, but of inherited syphilis—we are somewhat surprised that the disease had existed for upwards of 100 years before any definite notions were formed as to the peculiar manifestations of the inherited variety. To the history of the latter variety Dr. Kassowitz has devoted the interesting little treatise now before us. After adverting to the much discussed questions as to the parts which the father and the mother respectively take in the conveyance of syphilis, and to some more special questions—such as whether a syphilitic child can be born of a healthy mother, and the converse, as to whether a syphilitic mother can bear a healthy child to a healthy father—the author proceeds to discuss the probable causes which lead to such differences of opinion respecting a matter of daily occurrence. The chief causes, he believes, lie in the mixing up of various points which ought not to be confounded—*e.g.*, the spermatic and ovulate infection with placental infection,—and the prejudiced manner in which the observations have been collected, this last being due partly at least to the fact that these observations have been mostly made by specialists. Thus the syphilologists deny the immunity of the mother, because, being syphilologists, they are never consulted except by the syphilitic. On the other hand, children's physicians only see healthy-looking mothers along with the syphilitic children which are brought to them, and hence believe in the mother's immunity. The author proposes to avoid these extremes, and to take a much broader view of the whole subject.

The act of fertilisation consists in the union of the spermatozoa of the male with the ova of the female, whereby the latter is stimulated to further development, and the characters of the two parents conveyed to the resulting organism. But just as the special physiological inheritance of the new individual at first may scarcely be appreciable, or even altogether absent, or may remain latent for years, so may the pathological peculiarities inherited from the parents remain latent for longer or shorter periods, as is the case in deformities, phthisis, cancer, gout, and many other diseases. There can, however, be no doubt that such tendencies are conveyed to their offspring by parents; and that, too, either by one or other, or by both. We must, however, acknowledge that all diseases are not equally susceptible of this mode of transmission; and further, that from the moment when fertilisation has taken place, all paternal influence on the further development of the fœtus ceases absolutely, while that of the mother increases in proportion to the length of time during which the fœtus depends entirely on her for support. Under these circumstances we naturally ask ourselves, Can the mother, through the utero-fœtal, and, later on, placental circulation, convey to the fœtus any of those characteristics which it receives in the act of fertilisation? Can she convey to it either any corporeal or psychological power, or even power of developing? The author replies that there is nothing to warrant such a supposition. The mother, no doubt, by the supply of a rich, healthy, nutritive material, can invigorate those properties which a fœtus receives at the time of conception, or by an insufficient supply of nutritive matter may interfere with them. Nor is it less certain that disease in the mother, acquired after conception, may also be conveyed to the fœtus—as, for instance, the exanthemata, and especially small-pox. So that the influence of disease on an unborn child is twofold: 1. Through the fertilisation of the ovum—*inheritance proper;* and, 2. Through the passage of a poison from the mother's circulation to that of the fœtus—*intra-uterine infection.*

It is improbable that two such different processes should produce a similar result, and the author next proceeds to

(a) "Die Vererbung der Syphilis." By Dr. Kassowitz, Physician to the Public Sick Children's Institute in Vienna. Vienna: Braumüller.

discuss this subject. He asks, Can a non-syphilitic mother bear a syphilitic child? and Does syphilis, acquired during pregnancy, pass to an ovum which at conception was healthy? This first question must be answered in the affirmative, in support of which view must be reckoned the cases recorded by authors too numerous to cite here, and also the statistics, most carefully taken, of the Vienna Foundling Hospital, where it was found that of 400 children with hereditary syphilis, 166 mothers were healthy, while 122 only were diseased, the remaining 112 not being known or specified. Further, in the author's own cases (76 in number) the mother was healthy in 43 cases; in 23 cases both parents were diseased, and in 10 the mother alone. The patients referred to were under the closest observation for some years, and the facts can therefore be relied upon; it may be added that when the mothers were found to be healthy no treatment was adopted. It cannot, therefore, be said that treatment interfered with the natural course of the disease, and it is as little probable that, had syphilis existed, it would have remained latent for so considerable a period. From these and other observations it will be seen that a non-syphilitic mother may give birth to a syphilitic child, and in fact that it is an everyday occurrence. Still, there are some authors who deny this. Among the more recent we may mention Cullerier, who thus indirectly denies the direct influence of the father's syphilis on the offspring. In a recent work he publishes the following:—

"A man with squamous syphilis, mucous tubercles, sores in the mouth, on the scalp, alopecia, and enlarged glands, is treated with protoiodide of mercury for fourteen days, and pushed to salivation. He marries shortly afterwards; his wife conceives, and bears a healthy child."

These and analogous cases prove nothing, unless that a mercurial treatment, even at the height of the disease, can destroy the transmissive power of syphilis, if only for a while. Oewre also denies that the semen of a syphilitic father can exert any influence on the fœtus, and consequently believes that all hereditary syphilis comes from the mother: in support of which he quotes the cases of twenty-four males who had had syphilis, and who married and had healthy children; but he fails to mention anything concerning the course of their disease, or its treatment and result, or possible recurrence; further, he does not believe in the possibility of syphilis being cured, but mentions that a woman who was infected by her husband aborted in the sixth month, but a year and a half later, and again five years later, bore healthy children. No reference is made to treatment.

The next point is, Can the mother of a child syphilitic from the father's side remain healthy after conception? Many authors believe in the possibility of a secondary infection of the mother without any infection from without, the following being the varieties chiefly admitted:—1. The infection of the healthy mother by means of the placental circulation in a diseased fœtus. 2. The infection of the mother in the act of fertilisation with syphilitic spermatozoa. 3. The infection with spermatozoa of latent and non-infecting syphilis, independently of fertilisation. The author, however, declines to accept any of these modes of infection. It was Gardieu who first formulated the doctrine of maternal infection through a diseased ovum, and was supported later on by Ricord, who spoke of it as "choc en retour." Hutchinson also took up this doctrine, but did not regard it as a simple syphilitic infection, which, except for the omission of a primary infection, ran a natural course in its secondary and tertiary symptoms; he regarded it rather as a gradual and slow syphilitic poisoning, which only showed itself very late, and then always in the tertiary stage, or even only as a syphilitic cachexia. Dr. Kassowitz considers that these cases are defective, since details of the disease in the fathers and children are either insufficient or wanting, as also the details of the previous health of the mothers. The condition, too, obtains mostly after repeated pregnancies; the women consequently come under observation late in life—at a time when the commencement of the disease is therefore almost forgotten. Mr. Hutchinson believes that the women develope tertiary symptoms, because their husbands have arrived at that stage of the disease at the time of the infection; but why do all hereditary syphilitic children, without exception, develope secondary syphilis? He believes, too, that this cachectic condition increases with each successive pregnancy—a doctrine which is quite at variance with that usually accepted, viz., that syphilis infects once and for all, and that second infections are impossible. Authors thus show that the mother may be infected from the fœtus in one of two ways:—1. The mother, during pregnancy, or shortly afterwards, gets symptoms of recent syphilis. In other words, says our author, a mother is said to suffer with manifest syphilis at a time when the fœtus, which infects her, shows no sign of it; and she developes the disease more completely than the fœtus itself, although the former is the source of the poison. How much easier to think that the woman was infected by her husband, and that the primary infection passed unnoticed! It is well known that after a few weeks all traces of a primary sore disappear from the vaginal mucous membrane. 2. That the mother gets tertiary syphilis after giving birth to several syphilitic children, and without having had a secondary or a primary infection, or becomes simply cachectic. Here, says the author, we are liable to error in two directions: either the primary and secondary symptoms were slight, and have been forgotten or are purposely denied, or the cachexia has nothing whatever to do with syphilis. Perhaps the only real objection to the doctrine that the woman remains quite free from all syphilitic infection is that she does not become infected by suckling her syphilitic child. This does occur sometimes, but it is very rare; and then the possibility of acquired disease in the child is always possible.

Respecting the second mode of infection, by the act of fertilisation, Bärensprung, who first propounded the view, taught that "the semen of a syphilitic man, which, under ordinary circumstances, is innocuous to a woman, will infect her if it impregnate her. The cases he quotes in support lead, however, to the idea of an ordinary infection of the genitals. By this time it will be seen that Dr. Kassowitz's views may be formulated as follows:—A woman, impregnated by a syphilitic man, will bear a syphilitic child, but will herself remain free from syphilis, except she be infected from without. The syphilitic poison does not pass from the fœtus to the mother.

FROM ABROAD.

Functional Disorder of the Heart with Infrequent Pulse. Prof. Austin Flint, sen., at a meeting of the New York Academy of Medicine (*New York Med. Record*, December 18), read an interesting paper, founded upon five cases which he has met with in his practice. After describing the usual symptoms met with in functional disturbance of the heart's action, he observed that an infrequent variety of this is characterised by a persistently *rapid* pulse, unaccompanied by disturbed rhythm in the heart's action. This is a marked feature in exophthalmic goître. The pulse may remain frequent for months or years without any physical sign of organic disease of the heart being present. Some persons, however, have naturally a very frequent pulse, and this must be borne in mind in forming a prognosis. The case of a lady was related in whom the pulse was never below 100, and for a considerable time reached 120, and yet she was not aware of being in ill-health. Her case continued under observation for a number of years, and there was no physical sign of affection of the heart.

Functional disorder with notable *infrequency of pulse* is of much more frequent occurrence. Besides the five cases related by Prof. Flint, he refers to a very remarkable one, published by Mr. Thornton in the eighth volume of the *Transactions of the Clinical Society*—of a woman the subject of syphilitic laryngitis. Both before and after laryngotomy her pulse was 40, and even diminished for a time to 16. In Prof. Flint's five cases the lowest pulse was respectively 40, 35, 26, 38, and 24. There were four males and two females, and their ages were twenty, thirty-five, thirty-eight, fifty-three, forty-six, and forty-three years. In each case recovery took place, except one which continues under observation; and in all but one the pulse returned to its normal rate. In that one it remained at 48; and it is possible that this might have been the normal rate in that case. It is probable that a persistent infrequency of pulse may be acquired without any impairment of health; but this must be rare. And such infrequency—denoting a variety of functional disorders of the heart—seems to be associated with marked cerebral disturbance. In the diagnosis there is some difficulty in distinguishing these cases from subacute or chronic meningitis, although the presence of

symptoms indicative of compression of the brain in the latter will usually allow of this being done. Every case of meningitis, however, does not present such symptoms. The prognosis is favourable. In regard to treatment, in one of the cases a purge was of importance; and in another, strychnia, atropia, iron, and afterwards phosphorus, were followed by partial relief. What is desired is a remedy which will have a direct effect upon the inhibitory function of the pneumogastric nerves, and restore it to its normal condition. Theoretically, opium has been suggested, given in continuous doses —that is, in such doses and at such intervals as to maintain a continuous influence.

Dr. Blumenthal referred to four cases which he had seen, and, as a rule, he regarded this condition of the pulse as the precursor of some impending serious disease. In one of his cases the patient had a pulse of 40 for a few weeks, and then suffered from carbuncle. Prof. Peaslee mentioned a case in a man, aged sixty-two, in whom the pulse remained at 38 for about a month; and another in a healthy man, forty-five years of age, in whom the pulse numbered 40. In both cases this slowness was due to tobacco, and when that was excluded the pulse returned to its normal condition. He also mentioned that during the war, whilst examining about 450 men between the ages of eighteen and forty-five, he found the pulse at 40 or 50 in those of them who were cigar-makers. Prof. Jacobi alluded to the paralysis of the sympathetic as producing slowness of the pulse, and probably some of Prof. Flint's cases may be thus explained. Some of them evidently belonged to the neurotic class of persons. In such persons, a hemicrania, for instance, may occur which is dependent upon a paralytic condition of the vaso-motor nerves. He had observed slow pulse, especially in little girls, it being sometimes irregular; and had feared a termination in basilar meningitis, until he found the pulse went up again as the general condition of the patient improved. A number of causes resulting in general anæmia will produce infrequency of pulse, although anæmia, as a rule, produces a frequent and small pulse. His conclusion is that functional infrequency of the pulse may be explained in different ways in different cases. Either we have to deal with debility of the heart-muscle or with irritation of the pneumogastric nerve, or with paralysis of the sympathetic. Changes in the circulation will follow this last, such as attend dilatation of the bloodvessels; and this condition may be benefited by remedies which act directly on the vaso-motor nerves. Quinine will benefit by giving tone to the bloodvessels. Atropia or belladonna will probably benefit the condition of the sympathetic. On the other hand, we may have a change in the substance of the sympathetic ganglia, which will cause an infrequent pulse.

Obligatory Public Services of a Medical Practitioner.

Dr. Legrand de Saulle, the well-known medical legist, reports (*Gaz. des Hôp.*, February 10) an instance in which the tribunals have declared that a medical man may be compelled to render his services on a requisition being made for them by the authorities. The profession, he observes, is too jealous of its honour, dignity, and reputation to withhold its services when these are required in the interests of justice, whether for the purpose of punishing the guilty or defending the accused; and as a general rule they regard the pursuit of any legal investigations with which they may be charged as a duty to be fulfilled. But if by chance any one of their number refuses to comply with the requisitions of authority, does he render himself liable to a prosecution? A recent decision of the Court of Cassation seems to affirm that he does.

Last October the body of a man was found in the river Doubs, and a requisition was delivered by the police to a Dr. Gindre to proceed to the autopsy, in order to enlighten the authorities as to the exact circumstances of the death. This he refused to do, without showing that any circumstance rendered this impossible on his part. He was therefore charged before the Tribunal of Police at Pontalier with having contravened an article of the Penal Code, which requires all persons, under the penalty of a fine, to render aid to the authorities on the occurrence of accidents, tumults, shipwrecks, fires, or other calamities. This article of the Code was evidently intended to secure the material services of citizens in aid of the police in public calamities or the apprehension of offenders—when, in fact, urgent peril exists. But no such urgency can be said to exist when the nature of a death has to be determined; while little confidence could be placed in an investigation which had been rendered compulsory. Medical legists have hitherto laid down the rule that a practitioner has a right to refuse his services, whether to an individual or to a public requisition, providing that he had not promised to afford his assistance or had not entered on the matter at all. The magistrate at Pontalier decided that the services of Dr. Gindre were not obligatory, and dismissed the case.

The authorities, however, took it before the Court of Cassation: this annulled the judgment, and sent the case before another tribunal, which condemned the defendant to a fine of 6 fr. and all the costs. This decision, although final, Dr. Legrand regards as unjustifiable by the natural interpretation of the Code, and believes that it has been arrived at by the fears of the authorities that medical assistance would otherwise be refused them, and proofs of crime rendered impossible. These he regards as quite unfounded, as the profession at large regards its public duties as morally obligatory, although they may not be so legally. By the old law, practitioners refusing their aid to justice could be severely punished, or even be deprived of their degrees; but the new law, having regard to the honour, dignity, and independence of the profession, has not retained these coercive measures, worthy only of another age.

Anomalies in the Development of the Vaccine Pustule.

Dr. Hiller, during the revaccination of 700 healthy recruits, aged from nineteen to twenty-one, observed (*Centralblatt*, January 15) the following anomalous conditions:—

1. In four cases the pustules, resulting from the same successful revaccination, appeared at different times, so that the early ones were scabbing over when the later ones were in full development.

2. In three cases the first revaccination produced no result, while a second was successful, pustules appearing also at the sites of the first. In two of the cases, revaccination, having produced no effect on the one arm, was repeated on the other six days after; and, six days later still, well-developed pustules were observed on both arms. In the third case, repetition produced no effect on the second arm, but was followed by a fine pustule on the arm upon which the first vaccination had been performed twelve days previously. These cases, Dr. Hiller observes, are to be regarded as examples of delayed appearance of the pustule after the first revaccination, and not as resulting from the second.

3. In three cases the result of the first revaccination was imperfect, the papulæ remaining undeveloped; but after the second, performed six days later on the other arm, not only were the pustules from the latter well developed, but some of those of the other arm also now pursued their proper course. Here the favourable influence of the second revaccination seems obvious, unless we again fall back upon retarded development. That this is an unfrequent occurrence, however, is seen from the fact that about sixty other cases, in which, owing to imperfect development of the pustules, revaccination was repeated, only exhibited pustules at the seat of the second revaccination. These cases show that the partial or complete failure of a first revaccination should not lead to the conclusion that the individual is refractory to the influence of the vaccine virus. The highly remarkable circumstance has been observed by Dr. Hiller, that lymph which has proved invariably successful in forty individuals, has, although employed with the same care, entirely failed in ten others, who, revaccinated again eight days later with other lymph, have exhibited evidence of its complete success.

4. The first revaccination was successful, as was also its repetition, executed from five to seven days later. Difference of opinion exists as to the number of pustules necessary to obtain the desired security; but as the result of Eulenberg's examination of the subject, it would seem to result that a very few pustules will attain this end completely, but that the duration of the protection is diminished when there is only a small (under five) number of pustules. The tradition in the Prussian army is that a man is not to be considered as protected with fewer than three pustules, and requires further revaccination. As in twenty-seven of the recruits only from one to three pustules were developed during the first week, the revaccination in from five to seven days was repeated on the other arm, and in six instances there were four new pustules produced, and in eight less than four. None of the twelve other cases which were again revaccinated on the fifteenth or sixteenth day succeeded. These trials confirm the statement

of Bryce, that new pustules may be produced by revaccinating before the sixth day; as also the experiments of Sacco, showing that the protective power manifests itself from the eleventh to the thirteenth day after vaccination—a statement often confirmed by what is observed at the bedside with regard to the occurrence of small-pox during or immediately after successful vaccination.

5. Two cases in which pustules were developed independently of punctures. In each of these there was a pustule observed at some distance from the punctures; but there seemed great probability that this was due to the individuals having conveyed the virus by their nails.

6. Development of pustules amidst an eruption of acne. A recruit, having abundant acne of the neck, shoulder, and back, was revaccinated without effect in the healthy skin of the arm. As no result followed, the operation was repeated six days after on the other arm, as also on the papillæ of the acne on the shoulder and back. In these last localities a few pustules were developed, while in the healthy skin of the arm no change occurred. In another case several punctures made in the eruption of psoriasis were followed by development, while vaccination of the healthy skin was twice performed without success.

7. A case of successful revaccination during the prodroma of ileo-typhus.

REVIEWS.

Atlas of Skin Diseases. Consisting of a Series of Coloured Illustrations, together with Descriptive Text and Notes upon Treatment. By Tilbury Fox, M.D., F.R.C.P., Physician to the Department for Skin Diseases in University College Hospital. Parts I.—V. London: J. and A. Churchill, 1875-76.

This admirable and valuable work is based upon Willan and Bateman's classical "Delineations of Cutaneous Diseases," remodelled so as to represent the dermatology of the present day. The work will consist of seventeen or eighteen parts, issued at monthly intervals, and each containing four plates with descriptive letterpress. Of the seventy-two plates that the Atlas when completed will contain, more than half will be original, the remainder being from those published in "Willan and Bateman," but in many cases improved so as to more faithfully represent the appearances of disease. This promise of improvement is certainly being successfully carried out, especially as regards effect and delicacy in printing, and the plates (all old ones) of varieties of eczema, in Part V., are, we think, the best yet given; but we confess to preferring the new plates, some of which are admirable. Of the descriptive letterpress it is sufficient to say that it is from the pen of the editor, Dr. Tilbury Fox: no surer guarantee could be given of careful accuracy and excellence. He declares that his chief aim will be to portray not so much the uncommon as the common forms of skin diseases, in order that the Atlas may be a trustworthy and practical book to meet the requirements of daily practice. So far as the work has at present proceeded, its execution leaves nothing to be desired. It is convenient in form and size, and is issued at, considering its excellence, a wonderfully low price. Such a work was needed, and we do not doubt that it will prove very largely acceptable.

Respiration; or, Why do we Breathe? A Lecture delivered before a Popular Audience. By Patrick Black, M.D., Physician to St. Bartholomew's and Christ's Hospitals. London: Smith, Elder, and Co., 15, Waterloo-place. 1876.

Whether designedly or inadvertently, Dr. Black has omitted to mention where the above lecture was delivered; we presume before a mixed audience, as the explanations of the theory of respiration, the heart's action, and the circulation of the blood, are cleverly and fancifully explained in a manner which renders them not only intelligible, but interesting to the non-professional reader. The lecturer explains in his own manner the doctrine of asphyxia, which differs from the opinion laid down by the highest authorities on this subject; and in asserting that the heart's physiology has been in some important points entirely misapprehended, he again brings forward the views expressed by him more than twenty years ago in the Croonian Lectures delivered by him at the Royal College of Physicians.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, February 19.

Dr. Buchanan, President, in the Chair.

Mr. Liddle opened the proceedings by commenting upon a communication received from the Metropolitan Board of Works, soliciting the opinion of the Medical Officers of Health with respect to the practical working of Torrens' Building Act and the Artisans' Dwellings Act, and the most effectual way of carrying it out. He had always advocated the transference of the power from the vestries to the Board of Works, because the vestries are mostly composed of gentlemen holding property in the condemned districts. He objected to the Act as it stood, because the officer of health can only condemn when the buildings are structurally bad, and not merely because incapable of proper ventilation.

Dr. Buchanan thought that with more experience of the working of these Acts the vestries would be the better able to carry them into effect, seeing that the Board of Works have no medical adviser.

Mr. De la Motte, Medical Officer of Health for Swanage, was balloted for and elected a member of the Society.

Dr. Buchanan inquired whether any members present were able to give information with respect to a threatened reappearance of typhus in an epidemic form in some districts of London.

Mr. Liddle said that he had inspected recently some overcrowded lodging-houses in which both typhus and typhoid were prevalent. It was impossible to trace the source of communication in such cases, because these houses were filled with tramps coming for a night's lodging from all parts of the country. The cubic space allotted in many of these lodging-houses was insufficient, and he had made complaints, but the police would not interfere. He proposed to enforce the allowance of 300 cubic feet for each individual.

Dr. Wilson, Medical Officer of Health for Mid-Warwickshire, read a paper on "Sanitary Work in Rural Districts." After referring to the causes which have directed public attention to the sanitary condition of rural homes and villages in England, the author said:—Apart from increase of wages the cry of the agricultural labour has hitherto been, extension of the franchise, and "Give us land with our cottages" Extend the franchise by all means, extend it *ad infinitum* if you like,—it will possibly make canvassing as impracticable as bribery is illegal; but do not ask for more land until it can be shown that good use is made of the patches of garden already attached to the cottages. In the matter of cleanliness, so far as it is possible under conditions often so adverse, by all means let self-help be inculcated as a first and fundamental principle; and as side-issues—let honesty in labour, "a fair day's work for a fair day's pay," be advocated as a duty; and, further, let there be a wholesale denunciation of that suicidal custom of demanding an unstinted supply of beer during hay-mowing or harvest, granted by the farmer, because in providing this extra stimulus to work it pays him in the long run. He proposed to discuss the subject under the convenient headings of house-accommodation, water-supply, refuse-removal, including scavenging, drainage, and closet accommodation. And first with regard to house-accommodation. From the house-to-house survey which has been carried out, in many of the villages he found that as much as 15 to 20 per cent. of the houses contain only one sleeping-room, and about one-half the number contain only two sleeping-rooms. The only wonder is that our agricultural labourers are as moral as they are. The cottages are frequently built on undrained subsoils, so that, with damp and uneven floors and moist walls, it is no matter for surprise that rheumatism, heart disease, consumption, and other forms of lung disease, are far more rife in rural districts than all the other forms of so-called preventable disease put together. Now, although many large landed proprietors, recognising that they have public obligations as well as private rights, have of recent years been striving to provide proper cottage accommodation on their estates, still it cannot be overlooked that there are others who have not hesitated to evict such of their dependants as threatened to become an eyesore or a burden

upon them, and have driven them to neighbouring villages, only to increase the overcrowding already existing there. The great obstacle to improvement is the fact that many of the worst class of cottages belong to owners who are really so poor that they can afford neither to repair nor build; that others belong to owners who either hold them on leases which are nearly expired, or possess only a life interest in them; and that many of what are called the old charity or parish houses are vested in boards of guardians, who, not having the power to build or the funds to repair, are compelled to go into the market when any pressure to improve is brought to bear upon them, and sell the wretched hovels for what they will fetch. Then, again, there are holders of land who positively refuse either to lease or build in localities where good cottages are urgently required, and who are sometimes only too glad to effect a clearance, no matter at what cost to the comfort and well-being of the labourer. Some idea of the magnitude of the financial aspect of the question was given by Lord Napier and Ettrick, when he remarked, as President of the Social Science Congress three years ago, "If a minimum of one-third of the agricultural houses of Great Britain require to be rebuilt, you have something like a measure of our great necessity on the rural side of the question. It is a matter of building 700,000 cottages at a cost of £70,000,000 sterling." If we serve a notice upon an owner who is too poor to pay, and who occupies the cottage himself, he replies, "If you close my cottage as no longer habitable, I have nowhere else to go but to the workhouse." Again, a notice is served to abate a case of overcrowding where the family has outgrown the sleeping accommodation, and you find, what is often quite true, that it is impossible to get a more commodious house in the village. My conviction is that sooner or later the Legislature must pass some measure akin to the recent "Act for facilitating the Improvement of the Dwellings of the Working Classes in Large Towns," which shall be applicable to rural and small urban districts. Mr. Howard, of Bedford, has erected cottages within the last few years, each containing three bedrooms, and with concrete walls one foot thick, at a cost of about £100 per cottage, exclusive of earth-closets. With such a block of cottages one may feel quite sure, from his well-known position as a sanitary reformer, that every requirement of health has been attended to. It is very well known that the worst class of cottages when they get into the hands of small property-owners often pay as much as 10 to 15 per cent. on their outlay, so that, taking into consideration the improved and improving position of the labourer to pay a better rental, the fair return that may even now be obtained for new cottages, and the comparatively large return which is obtained for all cottages after being put into habitable repair, there is every reason to believe there will be no lack of private or public enterprise in the shape of local building and improving societies, providing only the requisite facilities for such enterprise be legalised by Act of Parliament. The next topic which comes under consideration is the water-supply in rural districts. Very often, and especially after a heavy fall of rain during a dry season, the great majority of wells would be found polluted to a degree which would condemn the water as totally unfit to use according to any of the ordinary standards of purity laid down by analytical chemists. This being the case, how comes it that the amount of consequent disease is far from being proportional to the frequent pollution of the water-supply? It may be explained in this way: the grown-up members of the family drink very little water as water; the husband and grown-up sons drink their beer; the mother and the grown-up daughters depend upon washy tea, for which the water must be boiled, and therefore rendered comparatively innocuous; and the victims, as a rule, are the children. No doubt the infant mortality in rural districts from diarrhœa, so prevalent in the summer and autumn months, is largely owing to the impurity of the water which they drink as it comes from the well, or when mixed with milk in feeding-bottles. In districts where the underground water is within easy reach in most parts, the wells are dug close to the house, and often in dangerous proximity to drains or deep ashpits connected with privies. In such cases the deep ashpit or cesspits should be regarded as a nuisance dangerous to health, and done away with altogether, and the drains should either be diverted or replaced by open and properly channelled gutters. Another source of danger is, that the upper part of the well is seldom puddled to a sufficient depth to keep out surface impurities, nor is the covering so evenly and imperviously laid as to keep out slop-water. Frequently, too, a well, in other respects good, becomes ultimately polluted because it is never cleaned out; and every pump-well should be provided with a properly-constructed manhole for purposes of inspection and cleansing. Sometimes it happens that the surrounding soil is so soaked with filth that the well must be closed, and a new one ought to be sunk in a more remote part of the garden; but as regards this obligation the law unfortunately gives no power to enforce a new water-supply unless under conditions that are only applicable to towns or villages where a public supply is provided. It is all very well to give magistrates power to close a well or to order that it shall only be used for certain purposes, but they should also be empowered to order the construction of a new well wherever it is required and can be provided, and as regards isolated cottages, to close them, failing this condition. In villages, this flaw in the Public Health Act need not be felt, because the sanitary authority has power to supply water either by public wells, by introducing a public water-supply if necessary, or by contracting with private individuals who have good wells to supply water to their needy neighbours for a fixed sum, or, failing all these, to cart the water into the villages during a period of scarcity, or until a public supply can be provided. These remarks apply chiefly to districts in which pump-wells afford the usual sources of water-supply: but in many parts, where the level of the subsoil water is near the surface, shallow dip-wells are common. These are more dangerous than ordinary pump-wells, because they are more exposed to the dangers of filth and pollution, and in localities where they are common, the inhabitants often suffer from round-worms, apart from other ailments caused by water impurities. Where the water is scarce, pump-wells are out of the question. In these cases advantage must be taken of the rainfall and neighbouring streams. Supposing the ordinary roof-water is stored for washing purposes, an allowance of three gallons per head daily, or about 1000 gallons per head per annum, would be quite sufficient to meet the requirements of health. Every inch of rain falling on an acre of ground supplies at least 22,500 gallons of water; and as the average rainfall, even allowing for evaporation, amounts at the lowest estimate to twenty inches, the available rainfall per annum would amount to 450,000 gallons per acre: so that if the whole of the rainfall falling on an acre of ground were collected and stored during the year, it would be sufficient to supply the wants of a village containing 450 inhabitants. The removal of excremental matters and other solid refuse, and the disposal of slops: Evils resulting from village uncleanliness are not so cumulative as those depending upon filth engendered in towns, and are, therefore, too apt to be ignored altogether, and partly, too, because the local circumstances are much more variable. With regard to public scavenging, some medical officers of health, eager to prevent the dangers arising from filth-accumulations, maintain that rural sanitary authorities should undertake the scavenging of every village under their jurisdiction, and would seem to hold that a "muck-acre" is as essential an adjunct to the village for the storage of its filth, as a parish graveyard is for the reception of its dead. For the great majority of villages in agricultural districts, public scavenging is not only unnecessary, but to insist upon it is unreasonable. In the Mid-Warwickshire district, for example, which embraces an area of over 240,000 acres, there are only two villages for which a system of public scavenging should be put in operation, while there are nearly a hundred other villages so circumstanced that the abatement of local nuisances can readily be enforced without the active intervention of any of the sanitary authorities. If the great majority of houses in a country village have sufficient garden space, the solid refuse ought to be disposed of in the gardens, and, indeed, one of the evils arising from filth-accumulations depends upon the fact that village householders are anxious to store their filth in order that it may be used as manure when occasion requires. It is evident, therefore, that if you remove their filth away from their premises altogether you entail a waste of labour and needless expense, because they will either have to purchase their manure from the sanitary authority if it establishes a "muck-acre," or they will be under the necessity of purchasing it elsewhere. But there are always some cottages to be found without any garden space attached to them for the reception of their filth: how are these to be dealt with? In the present state of the law the householder or his landlord is held responsible for any nuisance that may be found on his premises, and if there be not space enough

for the safe disposal of filth, either the landlord or the tenant must make such arrangements with some neighbour or some farmers as will meet the necessities of the case. For exceptions such as these the village "muck-acre" would be a great advantage, but then there are hundreds of scattered wayside cottages where the same difficulty exists, and where the evil will remain unremedied until the law provides that every such isolated cottage shall have attached to it a rood or two of ground. If cases of this description are so numerous in any village, or so circumstanced that they themselves cannot arrange for the disposal of their excremental filth, then the sanitary authority should undertake the duty for them. Public scavenging is no more required as a sanitary necessity in the great majority of country villages than it is for the many scattered farmhouses and cottages which are to be met with in rural districts. With regard to closet accommodation, the alterations which may be required to remove nuisances will depend in great measure upon the kind of closet accommodation which is found to exist; and only in villages where public scavenging becomes necessary is it essential that any uniformity in the alterations should be carried out. If the privy abuts against the house, or is not very far from the well, it should either be removed altogether or be converted into an earth or ash-closet, and be provided with a pail or box to receive the excreta. Inside a house, the only kind of closet which can be used without risk to health must be a water-closet communicating with a drain or cesspool, or an earth-closet of an approved pattern; but in either case the closet must be detached from any living- or sleeping-room, and be properly ventilated. In the few best class houses provided with water-closets it is generally found that the soil-pipe is not ventilated, and that the closet discharges either into a covered cesspool from which any gases generated can escape only into the house, or into a village drain which was not constructed to receive excremental filth. Let the privy be regularly cleaned out, and filled in with fresh gravel or clay, and such other alterations made that a galvanised iron pail or box can be readily inserted beneath the seat to receive the excreta. This, of course, should be regularly emptied into the garden, and, to obviate nuisance, dry earth or sifted ashes should be thrown into the pail at least once a day, and in sufficient quantity to keep the excreta covered. Fill up all cesspits to the level of the ground, paving or cementing the filled area, walling it in, and covering it as an ashpit, raising the floor of the privy a step, and with it the seat, and placing a flag sloping backwards beneath the seat, so that the excreta may be readily covered with the sifted ashes or dry refuse thrown into the ashpit. Or the ashpit may be dispensed with, and, after filling up the cesspit, the privy may be readily converted into a pail-closet. Every ashpit connected with a privy should be little, if at all, below the level of the ground: it should be cemented, or made otherwise water-tight, and should be covered to keep out the rain. In villages for which public scavenging is considered necessary, there is no doubt that some uniformity in the nature of the alterations must be carried out, and one of the pail systems would answer best: as, for example, the Goux system. In one of the districts of Mid-Warwickshire the closet known as Moeser's closet is the one approved by the sanitary authority. Indeed, for new houses any patent of the kind is much cheaper than the old-fashioned privy with its huge deep ashpit, and, what is more, it is a sure preventive against any serious nuisance. Coming now to the question of the disposal of liquid refuse. It has been assumed that if you prevent any admixture of excremental filth, slop-water is comparatively harmless, and may be allowed to flow into a canal or watercourse without any detriment. But there is one instance in the district named, in which, apart altogether from nuisance, a canal company has obtained an injunction against a rural sanitary authority for silting up a part of the canal with the deposit of the slop-water from a village which discharges into it, and there are several instances in which it is imperative that village slops should be purified before they enter streams which are used as sources of water-supply below the villages. As regards scattered houses, or groups of houses which create nuisance by draining into open roadside ditches, such nuisance may be obviated by using the slops in the gardens, and if there be not sufficient garden-space, there is no better method of dealing with them than that devised by Dr. Bond, which consists in the use of a precipitating slop-tub with a filter. Where there is sufficient garden space and the ground slopes away from the house, the most satisfactory way of treating them is by sub-irrigation and the use of Field's syphon flush-tank, but care must be taken that the sub-irrigation drains are laid at a safe distance from the well. Sometimes the drains lead into what is called a dumb-well; and provided there is no well for drinking-water near, and the dumb-well is ventilated and regularly cleaned out, this may be regarded as a tolerably safe and ready method of dealing with the difficulty. In the present condition of village roads with badly laid side-paths, open gutters would be a constant source of nuisance, while surface drains, even though they be leaky, if they have a good fall, are fairly well laid, are supplied with catchpits, and provided with means for ventilation and flushing, seldom give rise to nuisance, and are not a source of danger unless they are near to any well. If a village is damp, and the subsoil can be made dry by drainage, or if the existing system of drainage is so radically bad owing to inherent defects, such as patch-work drainage, or drains opening into filthy stagnant ditches, a new and efficient system of drainage should be carried out. But supposing that a village is fairly well drained, or requires to be drained, how is the sewage or slop-water to be ultimately treated? If the village drains into a large stream, which is not used for drinking purposes below the village, and there is no nuisance at the outfall, it is not necessary to recommend any inferference. If, again, the village drains into an open ditch without creating nuisance, and at some considerable distance from a stream which is used for drinking purposes, a large catch-pit will generally suffice provided all excremental filth and slaughter-house refuse be kept out of the drains. But in all cases in which there is nuisance at the outfall, or risk of pollution of water used for drinking purposes, the sewage should be purified by irrigation or sub-irrigation, and, failing these, that it should be filtered through a sand and gravel filter of sufficient size and on the intermittent downward filtration system. In purely agricultural districts, the various expedients which might be easily adopted for the purification and utilisation of village slops are so accessible, so to speak, that in the great majority of instances there not only need be no difficulty in treating them efficiently, but if properly utilised they will pay a fair return to any farmer who is public-spirited enough to take them. Unless a tank is provided, which can be periodically emptied, the sewage trickles along the surface-gutter in the field, and finally disappears without contributing any of its fertilising properties, except it be to the sides of the gutter, on which some rank grass is found growing. Special care should be devoted to the sanitary condition of village schools, and more particularly as to the kind of closet accommodation, some form of the dry conservancy system with boxes or pails being, for obvious reasons, preferable to any other. Special attention, also, should be devoted to the sanitary condition of farm-buildings, and more particularly of dairy farms; and the means to be adopted for the prevention of the spread of infectious diseases in sparsely as well as in thickly populated parts of country districts. In spite of legislative defects and local shortcomings, sound sanitary progress is being made in many directions.

Dr. Baylis, in opening the debate upon Dr. Wilson's paper, said that, having moved from a northern to a southern sanitary district, he had found the cottages in the South of England much less dilapidated than those in the North. He regretted that there were no powers to enforce reconstruction of dilapidated houses, and to have plans laid before the sanitary officials. Cheap ventilation could be obtained by making, where the roof is vaulted, an opening in the ceiling, which could be filled in with wire gauze. He much approved of the use of tube-wells for drinking-water purposes, as filtration was sure to be properly effected by this means. If the water-supply is bad and incapable of improvement, the officer of health should see that it is properly filtered. He considered the open gutters to be a great nuisance.

Dr. Robinson would not condemn the thatched cottage, because it is cooler in summer and warmer in winter; also because it is generally surrounded by a large garden, whereas modern cottages have little or no garden. He advocated drainage or efficient scavenging, as the pail and other systems were very liable to neglect, and so to become a nuisance. He had found the system of sewage filtration work very well in villages. Let the medical officer of health guard against becoming a superior inspector of nuisances: his time could be better employed in tracing out the first appearance and mode of transmission of epidemic diseases. How is it that chicken-pox cannot always be differentiated from small-pox? He had frequently found chicken-pox in

children associated with undoubted cases of small-pox in the same house.

Dr. Thursfield had found numerous instances of overcrowding in villages and small towns. He considered public scavenging most essential for all villages. The privies should be so constructed as to exclude land drainage, and properly ventilated. The dust-bin should be distinctly shut off from the privy. He regretted that the officer of health had no power to close a village school when scarlet fever was prevalent, as this was the chief means of spreading the disease. He believed that if despotic powers were given small-pox might be stamped out, and vaccination would be no longer necessary.

Dr. Woodford had made inquiries respecting alleged "deaths from chicken-pox," and had found that a shopman and his daughters had suffered from hæmorrhagic small-pox. After some persuasion he succeeded in cleansing the shop and disinfecting all the apartments.

Dr. Jacobs advised all rural medical officers of health with towns in their district to apply to the Local Government Board for urban powers, which would be granted if proof were forthcoming that the towns in question were "populous places." They would then possess more stringent regulations for the abatement of nuisance. Sanitary authorities ought not to undertake the work of surveyors and engineers with respect to water-supply, etc. He much regretted that it was not always possible to prove a nuisance when such existed. There are no powers to enforce sub-irrigation for the disposal of slop-water; in such cases drainage was desirable.

Dr. Buchanan thought the speakers had not made sufficient distinction between the disposal of harmless slop-water and that which was likely to contain poison-germs or sewage in the proximity of existing water-supply.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 22.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

On Intermittent Hæmorrhage apparently due to Malarial Influence.

Surgeon-Major J. H. Porter read notes of a case as above. The patient was a young soldier who, when quartered in India in 1873, suffered from a severe form of intermittent fever, followed by disease of the left knee-joint, for which amputation was performed on July 8, 1875. Hæmorrhage in the form of oozing set in on July 17, or ninth day after the operation, preceded by cold and hot stages resembling ague. It was found necessary to open up the stump and apply styptics, when hæmorrhage ceased; but it recurred on July 18, 20, 21, and 23, on each occasion being preceded by hot and cold stages, and on each occasion it was found necessary to open up the stump and apply styptics. Sulphate of quinine was administered on the 23rd, in doses of five grains three times a day, after which the hæmorrhage did not recur, and the patient made an excellent recovery.

Dr. L. Brunton considered the case of great importance, as tending to illustrate certain facts in relation to the pathology of intermittent fever. Lusanna had shown that the site of this poison was the portal system. Say that the poison was swallowed; it passed into the portal system, escaped again with the bile, and was again absorbed—thus passing round and round in a circle. Should it reach the systemic blood-system, an ague fit ensued. Loss of blood and shock were likely to bring this about. Something of the same kind was produced by interfering with the vaso-motor centre in the medulla oblongata. In this way the vessels of the skin and of the intestines were affected, but not those of the muscles. In the case narrated the vessels of the skin and bowels had probably been contracted, whilst those of the muscles were under increased tension; hence the bleeding. He thought intermittent hæmaturia was produced in the same way.

Mr. Macnamara thought that if this theory was true they should see such cases much more frequently in Lower Bengal. This case was unique; he had never seen anything like it. So, too, intermittent hæmaturia, which was very rare in Lower Bengal, ought to be much more common there were this theory true.

Dr. Duka confirmed this view. He had never seen such hæmorrhage from the stump, and could not account for it.

The President considered the case as likely to prove of great importance. Ague was the result of a definite poison, which was reproduced within the body during a longer period than any other. He knew a gentleman who had been in the Walcheren Expedition, who still suffered occasionally from true Walcheren fever. There was, no doubt, in ague a definite determination of blood to certain organs, especially the spleen.

On the Estimation of Albumen in Urine by a New Method adapted for Clinical Use.

Dr. Wm. Roberts read a paper on this subject. The author said that when an albuminous urine is progressively diluted with water, and tested from time to time with nitric acid, the opacity induced by the test becomes gradually fainter and fainter, until at length it ceases to be visible. The more albumen the urine contains, the more dilution, of course, it will require to reach the vanishing point of the reaction; and if we could fix this point with accuracy, we could, from the degree of dilution required to reach it, measure the proportion of albumen in urine. But the opalescence produced by the acid fades away so gradually with increasing dilution that it is impossible to determine, within many degrees, the point at which it ceases to be appreciable. The development of the reaction is also more and more postponed as the dilution proceeds, until at length several minutes elapse after the addition of the acid before the opalescence becomes visiblo. To avoid these difficulties it was found necessary to choose an arbitrary zero to the scale. After various trials, the following procedure was adopted—to dilute the urine until it ceased to give a reaction in thirty seconds after the addition of the acid, but gave a distinct reaction in forty-five seconds. With a little practice it was found possible to strike this point with sufficient accuracy to serve as a practicable zero to the scale. Each dilution with an equal volume of water was counted as one degree—and these degrees may be conveniently termed "degrees of albumen." Thus, a urine which requires dilution with a hundred volumes of water to reach the zero-reaction, may be said to possess 100 degrees of albumen. In conducting the inquiry, five cubic centimetres was the unit-volume employed, and the dilution was carried on in vessels graduated to cubic centimetres. With English measures the fluid drachm is the most convenient unit-volume, and the dilution can be carried on in vessels graduated to fluid ounces and drachms. To insure exact results, the testing must be conducted with rigid uniformity. The test-tube must have a fixed diameter,—five-eighths of an inch in the present inquiry; the watch is placed on the table before the operator; the acid is added to the urine at a precise moment, and in such a way that it will sink to the bottom of the test-tube and form a distinct layer below the diluted urine. The test-tube is then held up to the light against some dark background, and as soon as the faintest opacity appears above the level of the acid, the time of its appearing is noted. If it appear before thirty seconds after the contact of the acid, more water is added, and the testing repeated as before. Thus, by repeated additions of water and repeated testings, the zero-reaction is reached; that is, an opacity coming doubtfully into view in thirty-five to forty seconds after the addition of the acid, and appearing unmistakably, though still very dim, at the forty-fifth second. The degree of dilution required to reach this point is then read off, and recorded in multiples of the unit-volume of urine employed. Thus, if a drachm of urine required dilution up to fifteen ounces to reach the zero-reaction, the urine was recorded as having 120 degrees of albumen. In order to ascertain the actual value in weight of albumen of each degree on the scale, a series of comparative analyses were made by the weighing method. The result of these was to show that each degree on the dilution scale corresponded to 0·0034 per cent., which is equivalent to 0·0148 grains of albumen per fluid ounce (B.P.). From these data the daily loss of albumen by the urine is easily calculated. Suppose the discharge of urine in twenty-four hours to be forty ounces, and that a sample of this gave 150 degrees of albumen by the dilution method: then, $0{\cdot}0148 \times 150 \times 40 = 88{\cdot}8$. The daily loss of albumen was 88·8 grains. The time required to perform an analysis by this method varies ten to twenty minutes.

The Urea and Chlorides in the Urine of Jaundice.

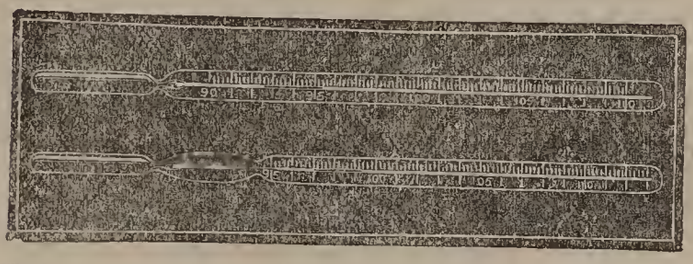
Dr. Wickham Legg read a paper on the above subject. After mentioning that on Meissner's theory of the forma-

tion of urea it might be looked for that the amount of urea in the urine of jaundice would be greatly decreased, the author gives the results of the analysis of the urine in ten cases of jaundice. In seven out of the ten cases the stools were colourless. The temperature was not raised in any. The jaundice was well marked in all. In most of the cases the observations were made on six consecutive days. The urea was estimated in the first half of the cases by Liebig's method; in the second half by Russell and West's process. The mean of the observations is as follows :—

Disease.	Urine. c.c.	Urea. grammes.	Chlorides. grammes.
Hydatid of liver (?)	2234	28·387	13·801
Hydatid of liver	2790	29·574	11·36
Gall-stones (?)	1788	27·28	12·469
Simple jaundice	1355	22·596	10·428
Cancer of liver	570	18·87	6·21
Hydatid (?)	1433	22·598	—
Cancer of liver	1971	22·87	6·765
Hydatid (?)	1481	15·975	13·2743
Cancer of liver	1120	18·72	9·756
Cancer of liver (?)	1100	19·2	9·78

NEW INVENTIONS AND IMPROVEMENTS.

POCKET CLINICAL THERMOMETER.



We have received from Messrs. Arnold, West Smithfield, a very convenient clinical thermometer, the special, and an important, advantage of which is that the graduated scale is coated over with glass, so as to make the markings on it absolutely indelible. The round wooden case has short, square sides in the mid-length, which prevent any chance of rolling, and therefore guard against a fertile source of breakage.

REAL COGNAC BRANDY.

A few weeks ago it was announced in *Ridley's Circular* (the most important in the wine trade) that a large quantity of Hennessy's and Martell's brandies had been stopped in the docks until they should pay the duty of liqueurs. This took many members of the trade by surprise, and powerful efforts were made to obtain the samples already in bond at the old duty—with what result we have not heard, though it was thought that the Customs authorities did not look on the application with favour. These two brands have long ruled the English market, as far as brandy imported in bottle was concerned, but the action of the authorities must seriously interfere with this in future. The fact is that these and other shippers had been using large quantities of sugar and colouring matter to give character to their spirit, and with this the authorities have now interfered. Their action is most just, for by means of these two agents spirit of a very inferior kind, young and coarse, might be, and has been, introduced into the market.

We have been induced to make these remarks *àpropos* of certain samples of almost colourless and perfectly unsweetened brandy submitted to us by Mr. Denman, of Piccadilly. This brandy (Lemoino's) seems to be as nearly as possible the pure spirit of fermented grape-juice. It is to be had in three qualities, at 54s., 60s., and 72s., but in each sample the spirit is pure and unadulterated, the difference in price being mainly due to difference in age. Not to speak of the "Three Anchor" brand, which is the best quality, and constitutes a perfect cordial in the proper sense of the word, the second (at 60s.) is a spirit we can strongly recommend for medical use. Well do we remember, when laid on a bed of sickness, sending for some of the best brandy to be had; and being supplied by a respectable wine merchant with a bottle of filthy sweetened stuff, the employment of which, under the circumstances, was impossible. We would have given anything for some brandy pure and unsugared, but such was not to be had. In cases such as are familiar to all medical practitioners, where hardly anything will remain on the stomach, we can imagine nothing better adapted as a remedy than minute doses of this spirit in which small fragments of ice have partially melted.

OBITUARY.

DR. JAMES WARBURTON BEGBIE.

This distinguished physician, whose name has been for some years a household word all over Scotland, died at his residence, No. 16, Great Stuart-street, on the afternoon of Friday, February 25. In his death the city of Edinburgh and the country at large have sustained a loss that is and will long be widely and deeply felt.

Dr. Warburton Begbie was born in Edinburgh, on November 19, 1826, and was thus only forty-nine years of age. He was early destined to follow the profession of his father, Dr. James Begbie, who was himself long well known as a distinguished practitioner, and afterwards as a consulting physician. He received the groundwork of his medical education at the Edinburgh University and Surgeons' Hall. At this period of his life he was an earnest and devoted student, quiet, retiring, and unassuming in his manners; and after taking his degree in Medicine in 1847, his successful career as a student was crowned by his being elected by his fellow-students to fill the chair of President of the Royal Medical Society during two successive terms. He afterwards travelled in Germany, France, and Italy, and studied in the medical schools of Paris, Vienna, etc.; and it was during this time that he acquired that thorough knowledge of various continental languages which he found so useful in after-life. In 1852 he was elected a Fellow of the Royal College of Physicians, and in 1855 he was appointed a Physician and Clinical Lecturer in the Royal Infirmary. The enthusiasm and success with which he devoted himself to the study of disease and clinical teaching in the wards of the Infirmary will not readily be forgotten by those who had the good fortune to be his pupils.

Whilst Physician to the Royal Infirmary, Dr. Warburton Begbie also lectured in the Extramural School, at first on the History of Medicine, and afterwards on Practice of Medicine. On the expiry of his ten years' term of office in the Royal Infirmary he also discontinued his course of lectures on the Practice of Medicine.

Dr. Warburton Begbie had now more leisure to devote to a rapidly extending practice, and at the death of his father in 1869 he was in a position at once to take his place as a consulting physician. As such his success has been without a parallel in Scotland, and it must be looked upon as the result of the rare combination of gifts with which he was endowed. Ere long his advice came to be sought in extreme and difficult cases throughout the length and breadth of Scotland, and not unfrequently he crossed the border to aid with his great experience his professional brethren in England.

The distances he travelled in these almost daily journeys were great, and the labour and patience they entailed must have been enormous; and steadily, though silently and secretly, this overwork had undermined his fine, manly, and well-knit frame. It never, however, caused any variation in the calm, kindly, large sympathy with which he approached every sufferer, and through which he at once won his or her entire confidence.

During consulting hours, Dr. Begbie's house was usually crowded with patients from all parts of the country. Many will recall to mind with gratitude the pains he took to ascertain their ability to pay a fee, and the graceful firmness with which he refused any remuneration when he had made up his mind to do so. When called upon to give his advice gratuitously, his services were rendered with the same readiness and thoroughness as in the case of his wealthiest patients, and no abatement of his habitual gentleness and courtesy was observable.

Dr. Warburton Begbie succeeded his father in 1869 as Medical Officer of the Scottish Widows' Fund and Insurance Society. On the resignation of Sir Robert Christison in 1870, he was appointed, on the nomination of her Majesty, a member of the General Council of Medical Education and Registration, and attended the two following meetings of the Council in London.

It will be remembered by many who attended the meeting of the British Medical Association in Edinburgh last year, that he then received the well-merited degree of LL.D. from his *Alma Mater*, an honour, the suitableness of which was fully proved by the masterly address on "The Ancient and Modern Practice of Physic," with which he opened the Medical Section of the Association. This address illustrated well what was so conspicuous a characteristic of all his writings and lectures—viz., his great knowledge of the history of medicine. His first course of lectures was on this subject, and almost every paper published by him commenced with an exhaustive historical sketch of the subject with which he had to deal. The erudition and completeness which characterised his early lectures on medicine were most valuable to his students, furnishing them, in addition to the actual mass of knowledge supplied, with that high ideal of thoroughness which is so important a quality in the physician.

His contributions to the medical journals were numerous and valuable. The following, which appeared in the *Edinburgh Medical Journal*, may be mentioned:—"Requirements for the Proper Study of Medicine," being the introductory lecture delivered at the opening of the Medical School for the session 1863-4; "Facts and Opinions in regard to Asiatic Cholera," "Chronic Hydrocephalus connected with Cancer of the Brain," "Carbonaceous Matter in the Lungs," "Case of Aneurism of the Aorta, with Laryngeal Spasm, in which Tracheotomy was performed," "Loss of Sight in Diabetes, with two cases of Diabetic Cataract," "Case of Fatal Croup in the Adult," "Leukæmia," "Ichthyosis," "Case of Enlargement of the Spleen," "Malignant Disease of Æsophagus, with Pneumo-Pericardium," "Lead Impregnation in connexion with Gout and Rheumatism," "Diagnostic Value of Accentuated Cardiac Second Sound," "Vascular Bronchocele," "Treatment of Favus," "Herpes Circinatus, with Favus," "Fibrinous Mould of the Bronchial Tubes," "Clinical Observations," "Cancer of the Œsophagus," "Case of Aphasia and Right Hemiplegia, with Dissections," "Paracentesis Thoracis in the Treatment of Pleural Effusions, Acute and Chronic," "Struma Exophthalmica," "Early History of Anatomy," "The Swelled Leg of Fevers," "Therapeutic Action of Muriate of Lime," "Albuminuria in Cases of Vascular Bronchocele," "The Bromide Question," and "The Causes of Death among the Assured of the Scottish Widows' Fund Life Assurance Society from 1867 to 1873." He also furnished articles on "Diseases of the Nerves" and "Diseases of the Liver" to Reynolds' "System of Medicine," and a memoir of his friend, Dr. Robert Brown, of Carlisle, which, we believe, was the joint production of Dr. Begbie and Dr. Clouston.

Only those who benefited by his advice, in cases in which every method of treatment appeared to have failed, can have any conception of his enormous resources as a therapeutist. Numberless methods of treatment—old-fashioned as well as modern, but all well weighed as to their relative importance,—were ready for use in his comprehensive and orderly mind. His favourite study was therapeutics, and he was a firm believer in the efficacy of drugs when judiciously administered. He, at the same time, excelled in diagnosis, and was remarkably skilful in seizing on the salient points of a case and getting rapidly to the source of the disease. In this his power seemed almost intuitive, but was really the result of thorough knowledge.

The following extract from the *Edinburgh Daily Review* describes well some of his characteristics:—

"His literary culture was really wonderful, considering the engrossing nature of his professional duties. He was a good Grecian, and was familiar with the medical literature of the ancients, as well as with the works of modern writers.

"Dr. Begbie was a man of large build and powerful frame, and was remarkable for his great force and decision of character. When at rest, the expression of his countenance seemed severe and careworn, but on entering a sick-room, or in greeting a friend or a patient, it at once lit up with a sweet and kindly smile, sure to be followed by winning words and considerate bearing. Every patient felt that the physician took an interest in his or her individual condition; and this was as true in the early days, when he held crowded *levées* of poor people in the Infirmary, as in the few past years, when his house was the resort of the highest in the land. He seemed, in fact, never to forget his patients, and recalled in a wonderful manner the exact features of their cases and the line of treatment which had seemed the best. There was an entire absence of that querulousness and irritability into which an overtasked man is so apt to fall. He never went into society, but devoted himself entirely to his profession—a course of conduct that no doubt tended to shorten his life by the habit of overwork into which it induced him."

While Dr. Begbie was a man who shunned all public display, he was nevertheless one who pre-eminently lived for his fellowmen. His life was a long labour of love, and he was a good steward of the means that flowed in to him. His benevolence was very great, but so unobtrusive that its full extent will never be known. It was the result of eminent piety: a piety which enabled him to call and hold all men his friends, and when called upon suddenly, in the midst of high usefulness, fame, and prosperity, to meet his God, enabled him to do so in the full assurance of faith.

For some years past Dr. Begbie had suffered from a slight affection of the heart—the result of the enormous work which he felt himself almost compelled to undertake; and this became more marked last autumn. He, however, continued to persevere with his work until absolutely compelled to seek rest for a time. On February 9 he left Edinburgh with the intention of going to Italy. He, however, went no further than Carlisle, when he became so seriously ill that he was obliged to return home. He was now suffering from extreme irregularity of the heart, and his own conviction seemed to be that the illness would prove fatal. Notwithstanding the unceasing efforts of his physicians, who watched his symptoms night and day, he sank rapidly, and died a few minutes after two o'clock on the afternoon of February 25.

Dr. Warburton Begbie's death has caused a deep sense of loss, not only among the members of the profession, by all of whom, without exception, he was loved and esteemed, but also in very many of the homes of Edinburgh. There must be very few in that city who are not, directly or indirectly, indebted to him. The wide place which he filled there was best seen, perhaps, during the last days of his illness, in the number of persons who at all hours thronged his door, anxiously hoping to hear of some change for the better.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN. — SCHOOL OF PHYSIC. — HILARY TERM, 1876.—At the examination for the degree of Bachelor of Medicine, held on Monday, Tuesday, and Wednesday, February 21, 22, and 23, the successful candidates passed in the following order of merit:—

Cosgrave, Ephraim MacDowel.	Woods, Charles P.
Warren, Samuel.	Barrington, Henry E. G.
Leeper, George Reginald.	Russell, George M.
Fox, Charles N.	Dowse, Richard.

At the examination for the Degrees of Bachelor and Master in Surgery, held on Thursday, Friday, and Saturday, February 24, 25, and 26, the successful candidates were arranged as follows:—

Cosgrave, Ephraim MacDowel.	Dowse, Richard.
Lane, John.	Warren, Samuel.
Corcoran, Lawrence.	

Mr. E. M. Cosgrave, having obtained first place at both the medical and surgical examinations, received the Degree of B.Ch. *stipendiis condonatis*.

At the second Commencements (Hilary Term), held in the Examination Hall of Trinity College, on Shrove Tuesday, February 29, the following degrees in Medicine and Surgery were conferred:—

Baccalaureus in Chirurgiâ.—Ephraim MacDowel Cosgrave (*stip. cond.*).

Baccalaurei in Medicinâ.—Johannes Henricus Armstrong, Henricus Ernest Walter Barrington, Ephraim MacDowel Cosgrave, Samuel Rowley Morewood, Georgius Marcus Russell, Samuel Warren, Carolus Rolleston Woods.

Doctores in Medicinâ.—Franciscus Johannes Hannan, Hatton Smyth.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, February 24:—

Erith, William Edward Norton, Yonge-park, Holloway.
Fisher, Thomas, St. Michael's-on-Wyre, Lancashire.
Hindle, George, Over-Darwen, Lancashire.
Ruck, William, Silverstone, Towcester.
Todd, John, Auckland Lodge, Blackheath.

The following gentleman also on the same day passed his primary professional examination:—

Hammersley, Joseph, Guy's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

War Office—Medical Department.—Surgeon-Major Thomas Teevan, from half-pay, to be Surgeon-Major, *vice* James Leitch, M.D., whose restoration to full-pay has been cancelled. *For* "Surgeon-Major Robert Fleetwood Andrews is placed upon temporary half-pay, dated December 19, 1873," which appeared in the *Gazette* of January 20, 1874, *read* "Surgeon-Major Robert Fleetwood Andrews retires upon half-pay."

Brevet.—Senior Apothecary Thomas Bowyer Turnbull, Madras Establishment, to have the honorary and local rank of Surgeon on his retirement from the service. Surgeon-Major George Mackay, Madras Establishment, to be Deputy Surgeon-General (a step of honorary rank on retirement).

BIRTHS.

Head.—On February 21, at East Grinstead, the wife of Robert T. Head, L.R.C.P. Lond., of a son.

Hood.—On February 28, at Bletchingley, the wife of Donald Hood, M.B., L.R.C.P., M.R.C.S., of a son.

Morrieson.—On February 20, at Ealing, the wife of J. S. Morrieson, M.D., of a son.

Winslow.—On February 20, at Hammersmith, the wife of Lyttleton Forbes Winslow, M.D., of a son.

MARRIAGES.

Bainbridge—Collins.—On February 28, at St. Mary's, Bryanston-square, W., Frank Campbell Bainbridge, fourth son of Henry Bainbridge, Esq., of Russell-road, Kensington, to Laura Amelia, eldest surviving daughter of Charles John Collins, M.D., late Bengal Medical Staff, of Cefn Parc, Brecon.

Farmer—Crossley.—On February 28, at St. Mary's, Croydon, Cottenham Farmer, M.R.C.S., eldest son of W. F. Farmer, Esq., solicitor, of Anerley, to Annie Mary, only child of the late John Crossley, Esq.

Hutton—Sang.—On February 22, at St. John's Church, Newcastle-on-Tyne, George Allan Hutton, Surgeon-Major, late Rifle Brigade, to Elizabeth (Lilly), second daughter of John Sang, M.R.C.S. Eng., L.S.A., of Newcastle-on-Tyne.

Jules—Scanlan.—On February 23, M. Jules, Lorrain, Saumur, France, to Catherine, daughter of J. Scanlan, M.D., Glasgow.

Lloyd—Mums.—On February 10, at St. Martin's Church, Canterbury, Hugh James, L.R.C.P. Edin., L.F.P.S., L.S.A., of Tyncoed, Barmouth, N. Wales, to Mary Ellen Iliff, eldest daughter of Colonel Mums, of St. Martin's Priory, Canterbury.

Logie—Kean.—On February 23, at Christ Church, Paddington, Cosmo Gordon Logie, Surgeon-Major, late of the Royal Horse Guards, to Mary Maria, only child of the late Charles John Kean, Esq.

Russell—Duff.—On February 24, at St. Jude's, Southsea, Hants, Lieut.-General Edward Russell, H.M.'s Indian Army, of Ashford Hall, Ludlow, Salop, to Alice, widow of Surgeon-Major John Duff, M.D., Royal Artillery.

Shearman—De Castro.—On February 23, at St. Peter's Church, Swinton, near Manchester, W. M. Shearman, L.R.C.P., M.R.C.S., to Elizabeth Eva, daughter of the late J. H. R. de Castro, Esq., and granddaughter of James Atherton, Esq., of Swinton-park.

Turnbull—Fawdington.—On February 24, at the Church of St. Cuthbert, Shustoke, Warwickshire, Francis Turnbull, M.D., Surgeon-Major, retired list, Bengal Army, to Mary Elizabeth, eldest daughter of the late William Fawdington, of Barfield, Pendletown.

DEATHS.

Begbie, James Warburton, M.D., at 16, Great Stuart-street, Edinburgh, on February 25.

Damant, T.W., M.D., at Fakenham, on February 23, aged 56.

Dyce, Thomas Rose, Deputy Inspector-General of Hospitals, only son of the late James Dyce, Esq., Aberdeen, on March 1, in his 60th year.

Jolliffe, John, M.R.C.S. (formerly of Crewkerne), at his residence, 16, Godolphin-road, Shepherd's Bush, on February 25, aged 61.

Lewis, Alfred, M.D., Army Medical Department (late 4th Hussars), at 66, St. Mary's terrace, Maida-hill, on February 23, aged 34.

O'Sullivan, Robert Collis, M.R.C.S., suddenly, at 56, Rupert-street, Haymarket, on February 21, aged 58.

Smith, James Broom, M.D., M.C., L.R.C.P. Edin., at Loftus-in-Cleveland, on February 21, aged 35 years.

Smith, Jessie, the beloved wife of Anderson Smith, F.R.C.S., and youngest daughter of the late Henry Kendall, Esq., Surgeon, of Newmarket, Cambs, at 63, Burton-crescent, W.C., on February 27, aged 42.

Swabey, Samuel, F.R.C.S., son of the late Captain Swabey, R.H.A., at 102, Gloucester-crescent, Hyde-park, of bronchitis, on February 23.

Wills, John Percival, only son of John Wills, M.D., of St. Helier's, Jersey, on passage out to India, by the loss of the *Strathclyde*, off Dover, on February 17, aged 23.

Wood, Eliza Agnes, beloved wife of Peter Wood, M.D., Woodbank, Southport, on February 24, aged 68.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bristol General Hospital.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square, W.—Honorary Physician. Candidates must be M.R.C.P. Applications, with testimonials, to Mr. F. Bailey, Secretary, on or before March 15.

Lincoln Lunatic Hospital.—Resident Medical Superintendent. Candidates must be duly qualified in medicine and surgery. Applications, with testimonials, to the Governors of the Lincoln Lunatic Hospital, under cover to Mr. R. Hall, 38, Silver-street, Lincoln, on or before March 11.

Manchester Royal Infirmary and Dispensary, and Lunatic Asylum.—Honorary Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before March 25.

Odd-Fellows' Dispensary, Hull.—Surgeon. Candidates must be duly qualified and registered. Particulars may be obtained from Mr. W. Stubbs, East-park-terrace, Holderness-road, Hull.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Thingoe Union.—Mr. H. Taylor has resigned the First District; area 15,270; population 4303; salary £96 per annum.

APPOINTMENTS.

Chelmsford Union.—Clement Winstanley, M.R.C.S. Eng., L.S.A., to the Sixth District.

Dolgelly Union.—John L. Ellis, L.K. & Q.C.P. Ire., to the Mallwyd District.

Lincoln Union.—Joseph Goodall, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Third District.

Maidstone Union.—John E. Meredith, M.C., M.D. Dub., to the First District.

Risbridge Union.—Barré L. Tandy, L.R.C.S. Ire., L.R.C.P. Edin., to the Fourth District.

West Derby Union.—Alexander Dunbar, C.M., M.D. Edin., to the North Municipal District.

Pharmaceutical Society of Ireland.—The first examination in connexion with this recently organised body was fixed to take place at the King and Queen's College of Physicians, Kildare-street, Dublin, during the past week. We believe that eleven candidates had given notice of their intention to present themselves for examination; but we have not yet heard the result.

Dust-Shoot Foundations.—A series of resolutions have been carried by the Hackney District Board of Works, to the effect that no building shall be erected on made ground unless the whole internal area of the premises be covered with a layer of concrete six inches thick; and that no such erection shall be commenced until two years after the completion of the deposit, or until the parochial surveyor is satisfied that sufficient time has elapsed for the consolidation of the ground. These resolutions are to be submitted to the Home Secretary for approval.

Royal College of Surgeons.—A final meeting of the Committee on the "Examinations in Anatomy and Physiology," for the purpose of determining the Fellow to be recommended to the Council for election as an Examiner, in the vacancy occasioned in the Board by the lamented decease of Mr. G. G. Gascoyen, of St. Mary's Hospital, will be held this day (Friday). There is a list of good candidates to select from. The Middlesex Hospital sends three candidates, one of whom appears to be the favourite; St. Thomas's, the Westminster, and Birmingham Hospitals send two each; St. Bartholomew's, St. George's, the London, and Charing-cross Hospitals send one each; but it will be competent for any member of the Council to nominate others on the day of election. The next meeting of this Board for examination in Anatomy and Physiology will take place on Friday, the 31st inst.

Fertility of Young Oysters.—M. Gerbe, in a communication to the Académie des Sciences, states that he has been able to prove, by the numerous observations that he has made at Concarneau, that most oysters, if not all, propagate from their earliest years, and therefore long before they reach the size at which they can be sold, the shells of some of them scarcely being 25 millimetres in transverse diameter. From this it results that the prosperity of a natural or artificial oyster-bed need not depend upon the presence of large oysters, since young ones of a year old propagate, and may be employed. It is true that the product of these small oysters is not very great, for the quantity of ova is generally proportionate to the size of the oyster; so that individuals which have completed their first year, and have a mean size of 31 millimetres, furnish scarcely 1 cubic centimetre of ova, while those three or four years old furnish 4 or 5 cubic centimetres or more. But although less abundant, these young oysters furnish ova enough to replenish the oyster-beds. M. Gerbe also believes that these young oysters produce two broods annually; but further facts are required to demonstrate this.—*L'Institut*, February 23.

Medical Deputies to the National Assembly.—There have been elected twenty-eight doctors of medicine and one *officier de santé*. All belong to the Republican party except one Bonapartist and two Monarchists.—*Lyon Méd.*, February 27.

Longevity in America.—Mr. Edwin Bacon is publishing a series of papers on Human Longevity, in the *New York Herald of Health*, and from one of these we observe that Dr. Lambert has offered a reward of $500 for a clearly established case of a life prolonged to upwards of 105 years; and $1000 for a case proved to have reached 110 years.

The Ophthalmoscope in Injuries of the Head.—M. Panas, in a paper read at the Académie de Médecine, on the condition of the eye as observed by the ophthalmoscope after injuries of the brain, founded upon seven cases, five of which are accompanied by autopsies, comes to the following conclusions with respect to the stationary condition of the pupil:—1. The stasis of the pupil is often observed as a consequence of various traumatic lesions of the encephalon. 2. It is not always accompanied by visual disturbances; so that the fundus of the eye should always be examined with the ophthalmoscope, whether these exist or not. 3. According to the autopsies, this stasis seems to depend upon the infiltration of blood or serum into the sheath of the optic nerve, and not upon the cerebral lesion itself. 4. This stasis does not seem to indicate the particular variety or the gravity of the injury of the brain. 5. All that this stasis allows us to affirm is that it indicates the presence of a liquid effused into the membranes.—*Gaz. Hebdom.*, Feburary 25.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

P. Geo. Minchin.—Apply to the principal companies which send ships on ocean voyages.

Do they Manage these things better in France?—Sir Charles Dilke, M.P., in a paper on "The Municipal Government of Paris," remarks that while in London there is an outcry for "an adulteration inspection as efficient as that which exists abroad," in Paris there is an outcry for "a system as effective as that which exists in London." One point in which Paris is before London is in the power possessed by the Préfecture of Police to prevent the carrying on of unhealthy trades in the centre of the city. The number of persons relieved by the Director-General of Public Charities in Paris in the course of an average year is 130,000, or 1 in 16 of the population. Medical assistance and drugs are given much too freely, and this excess has a very demoralising effect. The hospitals are also under public administration.

J. J. Ridge.—After mature deliberation we have determined not to admit your communication in its present form. To the facts and arguments advanced we have not the slightest objection, and any simple statement we shall be glad to publish; but let Dr. Ridge remember that expletives are not facts, nor are adjectives arguments.

Dr. Griffith.—We have received and carefully read the documents forwarded by Dr. Griffith. If they amount to anything, they amount to a personal charge against the coroner and various other persons, of unfairness and we know not what all. We cannot lay ourselves open to the troublesome consequences of publishing these. Should Dr. Griffith (as he apparently intends to do) bring his statements before the world on his own responsibility, we shall have an opportunity of expressing our opinions on the whole business.

Weather Telegraphy.—This country was not the first to *issue* telegraphic weather intelligence to its seaports, for in 1860, when the introduction of such a system was being discussed in London, the step had already been taken in Holland, by Professor Ballot.

H. Pembroke L.—Geneva has never ceased to produce physicists, naturalists, and mathematicians, in a number quite out of proportion to her small population. The date of the first election of a Genevese to our own Royal Society was in 1739.

L.S.A.—Lithotrity is said to have been practised by the surgeons of Alexandria before the Christian era. In modern times it was first suggested by Gruithuisen, a Bavarian surgeon, who constructed instruments for the purpose in 1812. Civiale, a French surgeon, first performed the operation in 1824.

J. F. B., Great Wakering.—It was the late Sir Benjamin Brodie who said that during his whole life he had known only two dying persons who showed any fear of death, and that both of those died from bleeding.

Philosopher.—Aristotle says—"The philosopher should end with medicine, the physician commence with philosophy."

Mem. Obstetrical Society.—We find that since the establishment of the examination for the licence in Midwifery of the Royal College of Surgeons, only four unqualified persons have presented themselves for examination—namely, one in each of the following years: 1852, 1858, 1860, and 1868. All were rejected save one. There were also eighteen candidates, not members of the London College, but who possessed diplomas or licences from other institutions, as—M.D. Queen's University, Ireland, 4; M.D. Toronto, 4; L.R.C.S. Edin., 3; L.F.P. and S. Glasg., 3; L.R.C.P. Edin., 1; M.D. Aber., 1; M.B. Edin., 1; and M.D. Montreal, 1. Of the eighteen examined, fourteen were approved and four rejected. The total number of Licentiates in Midwifery, in the last published Calendar of the College of Surgeons, appears to be 1014. The following are the members of the Board of Examiners in Midwifery—viz., Mr. Prescott G. Hewett, chairman; Dr. Arthur Farre, Dr. Robert Barnes, and Dr. William O. Priestley.

Pro Bono Publico.—The increase in the number of hospitals is, no doubt remarkable, and it is to a large extent the result of the adoption of the cottage-hospital system in rural districts.

A Hospital Grievance.—The Governors of St. Mary's Hospital, Paddington, recently addressed a note to the St. George's (Hanover-square) Vestry, requesting that, for the improvement of the sanitary condition of the Hospital, dust and other refuse should not be deposited on the wharf immediately adjoining. In their reply to this communication, the Board state that they have no power in the matter.

Medicus.—The numbers of registered medical students in the United Kingdom in 1866 and four following years were as under:—

	1866.	1867.	1868.	1869.	1870.
In England ...	477	457	483	530	551
In Scotland ...	302	258	266	317	341
In Ireland ...	157	212	175	317	268
	936	927	924	1,164	1,160

W. W. P.—The Senate of the University of Göttingen has finally abolished the practice of conferring degrees *in absentiâ*. This much abused practice is now discontinued in all Prussian Universities.

Amercements.—The 51st Henry III., Statute 6, 1267, was, we believe, the first law inflicting penalties for the admixture of improper ingredients in articles of consumption.

A Lover of Beer.—According to a report just issued by the principal of the Laboratory Department of the Inland Revenue Office—after much careful attention of that department to the subject,—it appears that, although officers and supervisors regularly survey the breweries in the United Kingdom, not a single instance has occurred of cocculus indicus being found on a brewer's premises; nor has the drug been discovered in the samples of beer examined in the Laboratory for many years past. The statements which have been publicly made, that cocculus indicus is used as a beer adulterant, have not, on investigation, turned out satisfactorily. Although there is a large importation of the drug into this country, it appears that almost the whole of it is again exported to foreign parts; and the remainder left for home consumption is, according to the returns obtained from wholesale chemists and druggists, employed either for poisoning fish, or, when powdered and mixed with fat, as an ointment for killing vermin on cattle.

Unconscious Effect of Crowds.—Cousin says—"There is in great crowds an ascendant which is almost magical, which subdues at once the strongest minds; and the same man who had been a serious and instructive professor to a hundred thoughtful students soon becomes light and superficial where he is called to address a more extended and superficial audience."

An Old Oar.—During a lecture upon the human heart, on Monday last, by the Professor of Anatomy at Cambridge, he said that in his experience, now extending over thirty years, he had not found that pulling in boats did any real or permanent injury to the heart. He had not found any great danger arising from boating, but he had seen that much injury had been occasioned by over-eating, or, as he termed it, "winding up too often."

What becomes of Deceased Medical Men's Diplomas, Degrees, and Certificates?

To the Editor of the Medical Times and Gazette.

Sir,—This is a subject which I have long wished to bring under the notice of the profession as one of some interest, inasmuch as, looking through the obituary of the "Medical Directory" for 1876, extending from November, 1874, to November, 1875, there appear to have died 500 medical men, and as far as I could make out only thirty of these deaths were within the United Kingdom. There are upon the Register over 23,000 medical and surgical practitioners, living more or less by their profession, in various parts of the world. Over 2000 are employed as medical officers of Army, Navy, Indian Medical Service, and mercantile marine; and upwards of 1600 resident abroad possessing British qualifications. Probably there are not less than 700 that pass the examining boards every year in this country.

But what becomes of the 500 or so degrees and diplomas which belong to the "valley of death"? Are these all buried or cremated with the owners, or do the friends take charge of such interesting documents? As of late years many men have held more than one of such, is it not likely that some escape, and perhaps fall into the hands of individuals who have never studied beyond the "freshman's bones," and even less than that? It is so sometimes, one is almost afraid to think, in consequence of there existing (my own impression is such, rightly or wrongly) few means other

than that derived from the registrar of deaths. For example, a medical man takes ill and perhaps dies in lodgings; what is to prevent another from signing the death certificate with the deceased's own name? In one of the towns of England, some short while since, a person of wealth died, and by one will left a good round sum to the town authorities; but in a subsequent one this was completely reversed, and private individuals received the benefit. It is stated that the corpse's hand was used, guided by another, to finish this post-mortem will. Many thousands were lost and gained, but the last will was *the* will. There may or may not have been any truth in so idle a report, but the circumstance is somewhat altered if Tom Jones takes and uses Tom Brown's diploma, and is ever afterwards known as Tom Brown. Not so long since, I believe, the Medical Council proceeded against a man using another's diploma, and—*sic transit gloria mundi*—he received only twelve months' prison life! Last November there was introduced before the Local Legislature of Quebec Province a Bill (*Canada Medical and Surgical Journal*, December, 1875); section 33 requires an annual subscription from the members. In this country, I understand, attorneys pay a small sum each year. Why not have each diploma stamped in the corner with a separate coloured number, and require each surgeon or medical practitioner to send a notice, once in each year, of his whereabouts to his college, and not leave it to the registrar or clerk to send a notice which by some accident may never get to its destination? And then, forsooth! the registrar falls back on section 14 of the Medical Act, and thereby causes an immensity of trouble and vexation when it is, as it has been, unfortunately, applied. We sometimes hear that foreign diplomas are for sale, and even sometimes bought, when the so-called university has ceased its legal life; but then a diploma is a diploma after all! I am, &c., A. H. Morrill, M.R.C.S.E.,
London, February 22. Late House-Surgeon Lying-in Hospital.

*** The following, from a French paper, may amuse:—"At the University of Poitiers, Mlle. B., of Fontenay-le-Comte (Vendée), on being received as 'baccalauréat des lettres' (B.A.), was congratulated by the president, she having gained the first prize among twenty-two candidates, by her superior knowledge of the French and Latin languages." A writer, under the signature of "La Jeune Mère," adds: "We hasten to join our congratulations with those of the honourable president, and only hope that, if Mlle. B. gets married, she will be as well up in the hygiene of newly-born infants as she is in all that concerns the baccalauréat degree. The only and best thing for her is to become a good and wise mother of a family, instead of remaining a 'sapient woman.' If this epidemic continues—of women taking 'baccalauréat degrees'—*some* day all the men will be obliged to rear their children themselves, be it by hand, by the bottle, or the spoon."

Time works Wonders.—Soon after the Corporation of Surgeons had removed from Surgeons' Hall, in the Old Bailey, to the spacious building in Lincoln's-inn-fields, a spirited discussion took place in what was then called the Court of Assistants—since altered to the Council—on the admission of women to examination in midwifery, a project defeated by the legal authorities engaged by the College. The following lines, written at the time, may perhaps afford some amusement to the Council of the College; the Obstetrical Society, which opposes the movement; and to a large majority of our readers. Some of the language has the greater coarseness of some fifty years ago; but the production is a literary curiosity.

"*The Humble Remonstrance of —— to the Attorney- and Solicitor-Generals.*

"Will your honours but please
To reflect at your ease
On what passed in your presence of late,
When a low opposition
To the Surgeons' petition
Occasioned a mighty debate?

"When this Council thought fit
To you, sirs, to submit
That no midwife should practise at all,
Whether female or male,
Whether novel or stale,
Unless passed and approved at the Hall:

"And when Mr. Warren,
Such doctrines abhorring,
Said it followed, if that were the case,
That each, great and small,
Men and women and all,
In the Court must succeed to a place:

"It was plain, as they spoke,
That those relished the joke
Who this vile usurpation approved;
While those who, more wise,
Innovations despise,
With contempt and displeasure were moved.

"But when to the Court
The Clerk made his report,
And came to this part of the tale,
All the members astound,
Look indignantly round,
And with rage and vexation grew pale.

"Mr. Hawkins spoke first—
And he looked fit to burst,
If the face a man's feelings reveals,—
And he vowed that no power
Should consort him one hour
With old women in Lincoln's-inn-fields.

"Then up got Mr. Long,
And he at them ding-dong
(For his meaning he never conceals);
And he swore he'd be shot
Ere a dowdy should squat
Beside him in Lincoln's-inn-fields.

"Mr. Chandler spoke next,
And he said he was vex'd
(For in mild language he always deals),
That a plan so absurd
As that he had heard
Should be thought of for Lincoln's-inn-fields.

"Then good old Mr. Warner,
Who sat snug in a corner,
Said no tongue could tell what he feels,
Lest at forty years' end
This new charter should send
Such hussies to Lincoln's-inn-fields.

"Next to him Mr. Howard,
Neither peevish nor froward
Who his sentiments never conceals,
Said such nasty old sluts,
With their prominent guts,
Should ne'er rump him in Lincoln's-inn-fields.

"Mr. Lucas inferred
That from what he had heard,
After all Mr. Plummer's appeals,
Not a man would be found,
Take all the Court round,
To sit with them in Lincoln's-inn-fields.

"Then up got Mr. Cooper,
And he swore like a trooper
That he'd rather abridge half his meals
Than let an old witch,
Taken out of a ditch,
Sit next him in Lincoln's-inn-fields.

"Mr. Earle then declared
That he was prepared,
In spite of all parchments and seals,
To resign his own seat
Before ever he'd meet
The old women in Lincoln's-inn-fields.

"This roused Mr. Keate,
Who protested he'd eat
For his dinner brown bread and cow-heels,
Before he'd disgrace
An examiner's place,
Or mix with them in Lincoln's-inn-fields.

"This called up Sir Charles Blicke,
Who explained the whole trick,
And declared he saw wheels within wheels;
But he vowed he'd resign
His seat rather than join
The fat beldames in Lincoln's-inn-fields.

"Then the Clerk, as was meet,
Gravely rose from his seat,
And said if so he'd take to his heels,
For no flatulent drabs,
Full of ulcers and scabs,
Should rule him in Lincoln's-inn-fields.

"Please your honours, then see
What a rumpus there'll be
Should you sanction this odious reign;
It would tend to produce
A most crying abuse,
And the Court with one voice would resign.

"Let the matter go on
As it always has done,
And all will remain smooth and fair.
And for those who oppose
What their betters propose,
Why—let them all stick as they are.

"*Balbous Roots, M.D.*"

An Early-closing Advocate.—The resolutions carried at the fifth congress of the National Early-Closing League, held at Bristol on the 14th ult., were in favour of extending the Factory Act to young persons of both sexes employed in retail shops. A memorial was adopted to the Home Secretary, requesting him to introduce a general measure to simplify, consolidate, and extend the Workshops Act.

COMMUNICATIONS have been received from—

Mr. A. G. Minchin; Mr. F. Gordon Brown, London; The Military Secretary of the India Office; Dr. R. P. B. Taaffe, Brighton; The Registrar of Apothecaries' Hall, London; Mr. W. T. Law, Hampton Court; Dr. G. Griffith, London; Dr. R. Lawson, Wakefield; Dr. Brakenridge, Edinburgh; Dr. Day, Dorchester; The Secretary of the Royal Institution, London; Our Dublin Correspondent; Dr. Dunster, Michigan; Dr. C. Theodore Williams, London; Mr. Henry Morris, London; Mr. W. E. Poole, London; Mr. Furneaux Jordan, Birmingham; Mr. George Brown, London; Mr. J. Chatto, London; Mr. Jonathan Hutchinson, London; Our Glasgow Correspondent; Mr. C. S. Webber, London; The Representatives of the late Sir George Duncan Gibb, Bart.; Mr. E. P. Weston, London; The Secretary of the Epidemiological Society London; Mr. Mercier, London; J. H. W.

BOOKS AND PAMPHLETS RECEIVED—

Tanner's Clinical Medicine, third edition, revised by Tilbury Fox, M.D.—The Non-Alcoholic Treatment of Disease—List of the Fellows, etc., of the Royal College of Physicians of London—Lindsay on the Public Water Supply—Transactions of the American Ophthalmological Society—Liddle's Sanitary Report of Whitechapel—Kober on Urinology and its Practical Applications—Richardson on Subacute Cystitis following Parturition—Griffin on Gratuitous and Provident Relief.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Science Gossip—Bentley and Trimen's Medicinal Plants, part 6—Fox's Atlas of Skin Diseases, part 6—Edinburgh Medical Journal—Gazzetta Medica de Bahia, No 1—Transactions of the Odontological Society, vol. viii., No. 4—Anales de Cienceas Médicas—Students' Journal and Hospital Gazette.

APPOINTMENTS FOR THE WEEK.

March 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. W. Thiselton Dyer, "On the Vegetable Kingdom; the Boundaries and Connexions of its Larger Groups."

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London (General Meeting for Election of Officers and Council, 7½ p.m.), 8½ p.m. Dr. Brunton, "On an Old Remedy Revived—the Therapeutic Uses of *Pulsatilla nigricans*."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—1. The Vertebrate Skeleton."

Royal Institution, 2 p.m. General Monthly Meeting.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Adjourned Discussion on Syphilis.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Dr. Smart, "On the Cholera Epidemic of 1873 in the Basin of the Mississippi, chiefly with relation to its Importation by Fomites."

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Daldy, "On Functional Murmurs of the Heart."

Medical Society of London, 7 p.m. Dinner of 103rd Anniversary at the Criterion Restaurant, Piccadilly.

Obstetrical Society, 8 p.m. Presentation of Models, &c., with Remarks, by Dr. Arthur Farre. Mr. Jonathan Hutchinson, "On the Importance of Studying the Diseases incident to Parturition in the Lower Animals, with especial reference to those in the Sheep." Dr. John Williams, "On the Mechanical Action of Pessaries." Dr. Cooper Rose, "A Contribution to the Statistics of Midwifery in General Practice."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—2. Shoulder-Girdle and Fore Limb of Fishes."

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Gladstone, "On the Chemistry of the Non-Metallic Elements."

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Mr. Maunder, "On a Successful Case of Gastro-enterotomy (Artificial Anus in the Small Intestine) in a Male aged 68" (the patient will be present). Dr. Greenhow, "Aneurism of the Arch of the Aorta spontaneously Cured, with Obstruction of the Left Carotid and Subclavian Arteries." Mr. Holmes, "On a Case of Distal Ligature of the Left Carotid Artery for Aortic Aneurism"; also, "A Case illustrating the Utility of Linhart's Chisel in Excisions."

Royal College of Physicians, 5 p.m. Gulstonian Lectures—Dr. Shepherd, "On the Natural History of Pulmonary Consumption."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—3. Shoulder-Girdle and Fore Limb of Fishes."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. W. H. Flower, "On the Extinct Animals of North America."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 26, 1876.

BIRTHS.

Births of Boys, 1274; Girls, 1171; Total, 2445.
Average of 10 corresponding years 1866-75, 2338·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	870	821	1691
Average of the ten years 1866-75	816·0	781·6	1597·6
Average corrected to increased population ...	...	...	1709
Deaths of people aged 80 and upwards ...	...	...	69

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	5	...	8	...	2	1	3
North... ...	751729	1	6	16	1	24	...	2	1	3
Central ...	334369	...	11	3	...	6	...	...	1	1
East	639111	...	5	7	...	23	...	3	2	6
South	967692	1	11	16	1	27	...	2	1	4
Total	3254260	2	44	47	2	88	...	9	6	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·596 in.
Mean temperature	44·6°
Highest point of thermometer	56·0°
Lowest point of thermometer	33·7°
Mean dew-point temperature	39·5°
General direction of wind	S.W.
Whole amount of rain in the week...	0·54 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 26, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Feb. 26.	Deaths Registered during the week ending Feb. 26.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2445	1691	56·0	33·7	44·6	7·01	0·54	1·37
Brighton	100632	42·7	56	42	53·8	33·4	44·2	6·78	0·97	2·46
Portsmouth ...	124867	27·8	64	48	...	...	...	...	...	...
Norwich	83430	11·2	74	33	55·0	32·5	43·0	6·11	0·62	1·57
Plymouth	72230	51·8	33	28	54·0	33·5	46·5	8·06	1·32	3·35
Bristol	199539	44·8	164	87	55·4	35·6	45·8	7·67	1·03	2·74
Wolverhampton ...	72549	21·4	56	39	54·9	32·9	42·7	5·95	1·04	2·64
Birmingham ...	371839	44·3	341	170	55·8	33·0	42·8	6·00	0·84	2·13
Leicester	113581	35·5	104	37	54·5	33·2	42·8	6·00	1·20	3·05
Nottingham ...	93627	46·9	62	46	54·8	29·2	42·7	5·95	0·71	1·80
Liverpool	521544	100·1	427	364	56·0	32·6	44·0	6·67	1·17	2·97
Manchester ...	357917	83·4	269	249	...	...	...	...	...	...
Salford	138425	26·8	103	86	55·0	27·1	41·8	5·45	1·89	4·80
Oldham	88609	19·0	93	42	...	...	...	...	...	...
Bradford	173723	24·1	128	96	54·4	33·4	42·4	5·78	1·49	3·75
Leeds	291580	13·5	247	153	56·0	32·0	42·2	5·67	0·96	2·44
Sheffield	274914	14·0	205	130	56·0	29·0	42·7	5·95	1·22	3·10
Hull	136933	37·7	137	53	55·0	30·0	42·1	5·62	0·74	1·88
Sunderland ...	108343	32·8	76	23	59 0	32·0	42·4	5·78	0·49	1·24
Newcastle-on-Tyne	139929	26·1	107	60	...	...	...	...	...	...
Edinburgh	215146	51·3	121	105	54·5	30·1	38·4	3·55	...	...
Glasgow	545144	90·4	401	325	...	...	...	...	...	...
Dublin	314666	31·3	223	222	58·0	31·3	45·6	7·56	1·24	3·15
Total of 23 Towns in United Kingdm	8028595	37·7	5936	4129	59·0	27·1	43·2	6·22	1·03	2·62

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·60 in. The highest was 29·92 in. on Thursday evening, and the lowest 29·19 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture V.

MEDICO-LEGAL ASPECTS OF DEATH.

Having at last lecture concluded what I had to say on *the modes of its occurrences*, it now falls to me to notice (II.) *the series of changes* which are found to *follow* the *death* of the body. These have been studied by medical jurists from two different points of view:—First, as they bear on *the distinction betwixt real and apparent death;* and secondly, on the intimate *connexion* which they are seen to have *with many* of the most *important investigations* arising in connexion with medico-legal practice. The two sets of inquiries, however, admit of being considered in connexion; as the signs which point to *the reality of death* are merely links in the series of changes naturally following the departure of the life of the body.

Life is the conjoined operations of certain actions peculiar to organised bodies; and according as the organisation is more complicated, so much higher the manifestations of vitality. In man and the higher animals we find united both the organs and functions common to them with vegetables and with animals approaching to vegetables in structure. So perfect, however, is the unity of the compound being, Man, and so naturally dependent are the higher and the lower functions, and *vice versâ*, that a cessation of one set of actions soon of necessity involves that of all the rest. Nevertheless, this cessation is not simultaneous. Hence the distinction between *real* and *apparent death*.

In common with other observers, medical men are accustomed to attach the notion of *life* to the appearance of those functions classed as vital, which include sensibility, circulation, and respiration. When these are no longer manifested, the person is said to be *dead;* and the *period of the cessation of these phenomena* is considered as the date of the cessation of life. This, however, is not strictly accurate. It would be more correct were we to limit our notions of *apparent*—or, as it has been termed, *systemic—death* to the consequences of the arrest of the functions of the brain, heart, and lungs; and those attaching to *real death* to the consequences of the arrest both of the vital functions, and also those of nutrition and contraction, the cessation of which has been classed as *molecular* in contradistinction to *systemic death*. Some such discrimination is all the more necessary on our part from the circumstance of our not being in possession of means for readily determining with accuracy either the precise period of the cessation of the vital or the organic functions, and consequently for fixing on the precise moment at which *systemic* has been followed by *molecular death*. This being the case, it is not surprising that instances have been adduced of persons *apparently dead* having recovered and lived for longer or shorter periods. This admission does not *bind* us, nevertheless, to the reception of all the *marvels* which we find in authors, the credulity of whom has thrown an air of romance over the whole subject, and imbued the popular mind with a terror of premature interment, which neither reason nor fact is likely speedily to eradicate.

The *pros* and *cons* of the subject of the possibility of a person recovering after apparent death have latterly been rather evaded than discussed by medico-legal writers. Let us see how far facts will bear us in this obscure topic.

In the first place, it must be admitted that most, if not all, of the cases which have hitherto been selected as illustrative of the reality of such occurrences are not such as will endure a very close scrutiny. We proceed to notice briefly some of those which bear on their face some marks of authenticity.

1. We are assured by Orfila and others that medical historians have been nearly unanimous in ascribing the flight of Vesalius, the great anatomist, to the unfortunate mistake of laying bare the heart of a nobleman, apparently dead, the palpitation of which was the first warning of the true state of matters. The whole story, however, it now turns out, was an idle rumour, which originated after the death of Vesalius, to account for a pilgrimage which he made to Jerusalem, in order to escape from Spain (where he was detained against his will by the bigoted Philip the Second), and enable him to return to his native country, for which he pined.—(*Quarterly Review*, vol. lxxxv. page 368.)

2. Next we have the narrative of Louis, the celebrated French writer on medical jurisprudence, to the following effect:—A patient, who was supposed to have died in the Hôpital Salpétrière, was removed to his dissecting-room. Next morning Louis was informed that moans had been heard in the anatomical theatre; and, on proceeding there, he found to his horror that the supposed corpse had revived during the night, and had actually died in the struggles to disengage herself from the winding-sheet in which she was enveloped, as was evident, he thought, from the position in which she was found.—("Cyclop. of Med.," vol. iii. page 316.)

Now, apart from the moans heard in this case—of the evidence of which one may reasonably doubt,—there is nothing in the rest of the relation which does not admit of satisfactory explanation on physiological grounds. Thus, it is well known that violent and painful diseases which prove suddenly fatal are favourable to the rapid formation of gases, which, agitating the limbs, give rise to movements in the corpse mimicking those of life. So powerful is this gas in bodies that have lain long in the water (says Devergie), that, unless secured to the table, they are often observed at the Morgue to be heaved up and thrown to the ground. This explains the reported cases of bodies turning in their coffins, of which we have so many popular tales.—("Méd.-Leg.," vol. i. page 369.) One of the latest of these occurs in a quarter where it was scarcely to be expected—viz., in a report to the French Government on the best means for preventing premature interment, presented by a commission in 1866, where the names of Larrey, Tardieu, Devergie, and others occur.—(*Ann. d'Hygiène*, vol. xxvii. second series, page 293.) Here, as in many similar instances of the alleged dangers of premature interment, we have cases advanced on very loose evidence, and with an absence of names, dates, and localities—to say the least of it, very suspicious. One of the cases is very like that of Louis, at the Salpétrière. The alleged fact rests on the authority of a person some years dead, and by whom transmitted is not said. This person, four years after the death of his father, wishing once more to look upon his body after its interment, found it resting on its right side, the hands detached from the rosary by which they had been encircled.—(*Op. cit.*, page 295.)

Such is a specimen of the kind of proofs offered to us of *apparent* being taken for *real* death. We must not, however, go so far as to deny the possibility of such a mistake altogether. It is well known that Rigardeaux (in 1745) delivered a child by the feet from a woman supposed to have been seven hours dead, but who subsequently revived, and was with her child alive three years after. Again the young female relative of a late eminent practitioner in town (Aberdeen), some years ago, while labouring under pericarditis, was left, four hours for dead by her relatives, though she revived and lived for twenty-four hours longer. I was in attendance, as assistant, in this case at the time of its occurrence, and had notice sent me of her death, on the occasion referred to.

This, with the cases of Colonel Townshend and others, which we shall have occasion to detail presently, gives a colour of probability to the cases of reported recoveries after one or two hours of apparent death adduced in the publications of the Royal Humane Society.

Allowing for much of fiction or vague statement mixed up with and encumbering this subject, enough of evidence might be thus adduced to warrant us in directing attention to the means of discriminating between real and apparent death, even if these signs were not of importance to us as indicative of the order in which several of the characteristics of life leave the body.

The *morbid states* which might be most readily supposed to simulate death are syncope, apoplexy, asphyxia, catalepsy, and hysteria. In these and all other cases the indications of *real*, as contradistinguished from *apparent* death, are drawn from various sources—as, first, from *the cessation of the vital functions;* secondly, from *the cessation of the organic functions;* thirdly, from the occurrence of *certain changes in the tissues incompatible with the maintenance of life;* and, fourthly, from those peculiar *alterations* in the body which are *due to the commencement in it of the process of decomposition*. These I shall consider as nearly as possible in the order just stated, as they derive their importance for us, not so much as indications of death, but, as we have said, as being links in the chain of

phenomena exhibited by the body subsequent to the extinction of life.

First, *of the extinction of the vital functions*. The least important of these is *the cessation of the functions of the sensorium*, or *insensibility*. This state not only precedes, in most cases, real death by some hours, but also is so frequently seen without being necessarily followed by *dissolution* that no reliance can be placed on it *by itself* as a sign of death. When to this, however, is added *the arrest of the respiration*, the idea of death is so complete in the minds of ordinary observers that, in popular language, "*loss of breath*" is synonymous with death. So close is the connexion between respiration and circulation, that the cessation of the breathing, *when complete and final*, is followed at an interval of two or three minutes by *the stoppage of the circulation*. In these circumstances the failure of the respiration is followed by insensibility, which is even more speedy in its occurrence than the arrest of the circulation. The extinction of the vital functions, which would at first sight appear to afford decisive evidence that the person is no longer alive, are open, however, to the twofold objection that we cannot distinguish with absolute certainty *the minimum of these functions* from *their complete annihilation*, and that recoveries have taken place *after their apparent cessation*.

1. In the case of Colonel Townshend, so often quoted, that individual, in the presence of Dr. Cheyne and others, showed that he possessed the singular power of bringing about a gradual diminution of his breathing and circulation, till, in a short time, the action of the heart could be no longer felt; while a mirror held before his mouth was not dimmed in the least degree. So complete, to all appearance, was the extinction of the vital functions, that the observers, thinking that he had carried the experiment too far, were about leaving him for dead when they observed some motion about the body, and upon examination found his pulse and the motion of his heart gradually returning, when he began to breathe gently, and to speak softly.—(Taylor and others.)

2. A similar case was related by the late Dr. Duncan, of Edinburgh, in his lectures, which he described—if I remember rightly—as having been witnessed by himself and the other medical professors in the University. The subject of it was a medical student, who, like Colonel Townshend, simulated successfully the appearances of death. He died, however, some time after, of disease of the heart. Townshend expired on the evening of the day on which he exhibited his power over the vital functions.

3. A similar control over these functions was claimed by the late Professor ——, of this University. That he had this control—if not *directly*, at least in *an indirect form*, and one which admits of explanation, was shown by the following circumstance. As some doubts had been expressed of the alleged fact, on one occasion, without any warning of his intention, he once ran round the table in his room, and threw himself suddenly on a couch. At this moment his face was deadly pale, his breathing could not be perceived, and his pulse could not be felt at the wrist. On moistening his lips with a stimulus, the pulse began to return, at first feebly, and he could be seen to breathe before time was afforded for baring the chest to apply the stethoscope.

Whether, as in this instance, Townshend and the Edinburgh student brought on the syncope *indirectly* through the previous *stoppage of the respiration*, we have no means of knowing. If so, the unnatural character of the occurrence is much lessened, if not sufficiently explained.

Dr. —— had suffered for several years before his death from fatty degeneration of the heart, and was liable to faintings after exercise or other exertion. He died about two years after the occurrence just mentioned, and which I witnessed. He was in England at the time of his death, which occurred after a very short illness.

In such instances as the above the cessation of the vital functions could only have been apparent; but there can be as little doubt that, in some of the cases of reported restoration after some minutes of submersion in water, the extinction was real, probably in consequence of syncope, or of some state approaching to it, having come on in place of asphyxia, as usually happens. As to the alleged cases of persons who have been said to have been many hours, and even days, without pulse or breathing, we do not hesitate to "affirm," with Dr. Symonds, "that the observers were deceived, and that in reality both these functions were performed, but in so low a degree as to escape detection,"—as in hybernating animals.—("Cyclop. of Anat.," vol. i., page 804.)

It is but proper, however, to add on this point the striking circumstance related in his lectures by Mashkr, of Prague. A mature child, which showed no signs of life, was placed in the anatomical rooms of the University, and left there for fourteen hours, and then taken to the physiology class-room. On laying open the chest, no blood flowed from the integuments and soft parts in front. When the heart was reached, it was seen pulsating at the rate of twenty beats per minute. The lungs were seen to be in the fœtal condition. The Professor stated to his class that the occurrence was witnessed by some of his colleagues.

In actual practice it might often be difficult to determine betwixt the minimum of the vital functions and their entire arrest, none of the usual tests advanced being much to be relied on. Thus, in hybernating animals *who are known to breathe*, a mirror is not dimmed by them; so that this popular test must fail, though the breathing has not entirely ceased. In the same way we become aware of the fallacy of the Winslow test, of placing a vessel full of water over the bottom of the chest. In Dr. Marshall Hall's experiments with the bat, a delicate apparatus which he had contrived to detect the slightest motion was not disturbed during the continuance of the experiments with this animal in the torpid state.—("Cyclop. of Anat.," vol. ii. page 769.) As to *the circulation*, it may continue, though no pulsation can be felt over the arteries or the cardiac region, and no sound be perceptible by auscultation, as I have once or twice witnessed in profound coma from intoxication, notwithstanding which recovery took place.

Few practitioners would be willing to apply *Foubert's test* of the cessation of the circulation—viz., cutting through one of the intercostal spaces, and feeling the heart through it with the point of the finger.—(*Ibid.*, page 803.)

Various practicable methods of testing the reality of death have, however, been proposed, such as that of Laborde, who states that if a needle be plunged into the muscles of a limb in the dead body, it will be found, on removal after from twenty to sixty minutes, to retain its lustre, while in the living a needle similarly treated will have become oxidised (*Bull. de l'Acad.*, vol. xxx. page 680); or that of Dubont, by dropping atropine into the eye, and observing if it acts on the pupil (*Archiv. Gén.*, August, 1870, page 240).

Some still simpler tests of the arrest of the circulation, and consequently of the reality of death, have been suggested—viz., the injection of a few drops of ammonia under the skin, which in *the dead body* gives rise to no surrounding redness, as it does while life continues in it; or, again, the tying of a ligature round a finger, and noting if redness follows or not beyond the ligatured part of the finger.

Simultaneously with the arrest of the vital functions, the eyes lose their lustre, the surface generally assumes a marked pallor, and *the muscles become relaxed*. To all of these appearances, which usually mark off *very distinctly the moment of the cessation of the vital*, as contrasted with *the mere organic functions*, some, at least apparent, exceptions are known occasionally to occur. *The eyes*, for instance, retain their lustre for some time after death from breathing carbonic acid gas. *The pallor of the surface*, in certain cases, presently to be noticed, may be so slight or evanescent as to be scarcely sufficient to attract attention. *The muscular relaxation*, again, which in ordinary cases, equally with the pallor of the surface, is, as we have said, a marked feature of the change from life to death, may also fail to take place; as in a class of instances to which we shall have to recur by-and-by.

(*To be continued.*)

LECTURES ON INJURIES TO THE HEAD.

By JONATHAN HUTCHINSON, F.R.C.S.,

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Lecture VIII.

ON HEMIPLEGIA AS A SYMPTOM AFTER INJURIES.

Punctured Wound of Brain (Unsuspected); Insensibility, with Hemiplegia, and Spasm in the Paralysed Parts—Important Question of Diagnosis as to Compression—Post-mortem.

A very interesting case in reference to the discrimination between compression and inflammation occurred under the care of a colleague in December, 1870. In my colleague's absence I was asked by his house-surgeon to see a man who had been admitted partially conscious on the previous evening,

and who had passed rather suddenly into a state of absolute insensibility, with hemiplegia. The history which we obtained was imperfect. The man had been brought to the hospital by the police, and nothing was known as to what had happened to him, beyond the fact that on the day before his admission he had been left by some comrades in a shed adjoining a public-house; at the time that they left him he was only partially conscious, and was believed to be drunk. The conduct of his companions in leaving him was such as to suggest the possibility of accident or ill-usage, which they wished to conceal.

I found the patient, a man of middle age, with a somewhat flushed face, breathing rather heavily but without stertor. His pupils were of natural size and very sluggish, but they acted a little on exposure. The eyelids of his left eye were dusky and swollen, and the conjunctiva was chemosed; there was no positive ecchymosis either of skin or conjunctiva. He was hemiplegic in his right limbs and right half of face; his arm and leg were limp and fell loosely when lifted; his eyelids might be opened widely without the slightest resistance, and his cornea might be rubbed without eliciting any indications of annoyance. No deviation of the mouth was observable when he was quiet, but on rousing him the muscles of the left side alone acted. When the left cornea was touched, he always moved the eye and tried to shut the lids, sometimes also making an effort to lift the left arm. He frequently moved his left arm and leg, and resisted with tolerable force when they were lifted or otherwise irritated. Thus both sensation and motion appeared to be in abeyance in the right vertical half of his frame, including his head. His pulse was moderately full, but not laboured. In spite of the hemiplegia, the muscles of the right side of his face were still susceptible of spasm, and two or three attacks of convulsive twitching occurred during the half-hour that we were examining him. In these attacks of spasm the muscles of the cheek, the platysma myoides and the sterno-cleido-mastoid, were those chiefly affected: his limbs did not move. With the exception of a slight twitching of the sterno-cleido of the opposite side, the spasm was wholly limited to the paralysed parts.

The chief question for us to decide was as to the presence or absence of compression. It should be stated that the man had had no bleeding from the nose or ear, and that no irregularity of the skull or swelling of the scalp could be detected. The chief fact suggestive of compression was that the man, who twelve hours before was able to speak indistinctly, had become rapidly insensible. The history, however, was so imperfect that we could not place much reliance upon it, and it was quite possible that a much longer interval had elapsed since the injury than we were given to suppose, and that thus there had been plenty of time for the development of inflammatory mischief. My own opinion was strongly in favour of the existence of inflammation as a cause for the hemiplegia. When compression is sufficient in degree to cause insensibility, it usually produces also a degree of weakness in the limbs which is equal in the two sides, and not a definite hemiplegia; nor have I often seen local spasms occur in connexion with compression. On the contrary, spasms, hemiplegia, and unconsciousness are very commonly seen in conjunction in cases of inflammation. The prognosis clearly was very unfavourable—so much so, that although I did not believe that either blood or pus was present in sufficient quantity to cause compression, yet I was quite willing to share the responsibility of trephining, in order to remove all shade of doubt. No operation was, however, performed, and the man died about thirty-six hours later.

The post-mortem revealed a form of injury which we had not anticipated, but it confirmed our impressions as to the nature of the symptoms: they had clearly been due to inflammation and irritation, and not to compression. Passing through the left upper eyelid was a small wound, which had been overlooked during life, but which led through the roof of the orbit into the cranial cavity and the brain itself. The anterior lobe and the corpus striatum had been penetrated, and their substance was softened, extensively ecchymosed, and in parts almost diffluent. There was no perceptible quantity of lymph in the arachnoid cavity, but it contained a certain quantity of soft blood-clot.

There can be no room for doubt that the spasms and hemiplegia were in this case due to acute inflammatory softening of the hemisphere itself. We may note that the spasms before death became more violent and more frequent, and implicated the arm as well as the face.

In the next case which I shall read to you, hemiplegia and convulsions occurred in consequence of contusion and subsequent softening of one hemisphere. The injury was chiefly to its anterior part; but there were small ecchymoses scattered not far from the surface over the middle lobe also. You will notice that the symptoms went on increasing, the first condition having been that of concussion-stupor without absolute insensibility. This increase was probably to be explained by the gradual extension of the softening process.

Fracture of the Skull—Contusion and Laceration of the Anterior Lobe of Brain on the Opposite Side—Convulsions and Partial Paralysis.

Aug. 19 (Friday).—A man fell from some steps (twelve feet).
4 p.m.—Collapse, with concussion-stupor, quickly followed by great restlessness.
10 p.m.—Partially conscious; very restless; could move all his limbs.
„ 20 (Saturday).—Very restless; twitching of muscles on left side.
„ 21 (Sunday).—9 a.m.: Reported to have even got out of bed; still restless, and apparently getting worse.
11 a.m.—Brought to hospital. Frequent convulsions; paralysis of left limbs and face.
3 p.m.—Convulsions continue, and are almost constant; paralysis not complete, but quite positive; venesection; pulse quicker and more feeble.
„ 22 (Monday).—Constant spasm of both sides of face; no general convulsions.
„ 23 (Tuesday).—7.15 a.m.: Death; the spasms had continued.
Autopsy.—Fracture on right side; extensive damage to the under and outer surface of the anterior lobe of brain on left side.

William W., aged twenty-six, a waiter, a large and fairly muscular man, was brought to the hospital on Sunday morning, August 21. He was in a state of partial insensibility. His accident had happened on the preceding Friday, and had consisted in a fall from a ladder whilst he was cleaning a lamp. His left clavicle was fractured, and his left shoulder very much contused. There was no laceration on his scalp or face, nor any material evidence of contusion. It was stated that he had not had bleeding from either of his ears nor from his nose. The conjunctiva of each eye was ecchymosed. During the interval which had elapsed between the accident and his being brought to the hospital he had been under medical care at home, and had presented throughout the symptoms of concussion. (*See note* a.) On his admission at 11 a.m., the house-surgeon noticed that his left limbs and left side of face were paralysed almost completely. It was reported to us that he had had a fit of convulsions in the morning about six o'clock. Soon after his admission he had another, and during the next few hours several others. Between half-past twelve and three o'clock he had eight seizures. When the fits were coming on it was noticed that he always endeavoured to turn over to his left side. He preferred to lie on his left side. On several occasions he spoke to those about him in a half-conscious manner, and he could be got to put out his tongue.

I saw him for the first time at 3 p.m. on Sunday, five hours after admission. His countenance was dusky and congested, lips bluish, ears red; scalp and surface generally dry and hot, but not in an extreme degree. Although he frequently muttered when asked questions, and remonstrated when disturbed, I could not get him to speak, nor would he put out his tongue. His pulse was 80, jerking and sharp. He lay with his eyes a little open, the left more so than the right. The pupils were of medium size, and contracted further on exposure to light; they were nearly equal in size and in range of motion. He appeared to have no power in his left orbicularis

(a) I obtained the following particulars from Mr. N., the surgeon who attended him before he came to Hospital. Mr. N. saw him five minutes after the accident. He had fallen twelve feet from steps to flag pavement. At first he was supposed to have had a fit. When Mr. N. first saw him his pupils acted well; he was looking a little pale. He tried to get up, and was difficult to restrain. This was on Friday afternoon (four to five), August 19. In the evening, between nine and ten, he was still very restless; he was conscious; he breathed without stertor; he got out of bed, and sat on the chair at the side of his bed. He kept saying, "Oh! dear, oh!" but would not say where he had pain; he would not reply to anything. When his left shoulder was examined he said, "Don't; leave it alone; it hurts." This was the most rational expression he ever used. Spirit lotion to the head. Saturday: Mr. N. saw him between ten and eleven. Still restless; had not slept. A little twitching of the muscles on the left side. Sent to the hospital next morning.

oculi, nor any sensibility in the conjunctiva. He never moved the left arm or leg under any amount of irritation. His mouth was drawn a little, but decidedly, to the right side. When his right eye was irritated, he contracted the lids in energetic spasm, and lifted his right hand. When his right foot was tickled, he drew it up; his breathing was rather quick and laboured, but without stertor. He had been very restless through the morning, often turning over, often pulling the bedclothes with his right hand. Whilst I was at his bedside, a convulsive seizure came on: his eyes began to twitch (chiefly towards the left), his eyelids winked violently, then his facial muscles began to twitch; he rolled over to his left side, his lips became very livid, his pupils dilated widely, and, lastly, the muscles of his limbs and trunk were involved in spasms. The attack lasted about three minutes. Both sides were implicated, but the right side chiefly. The right leg jumped a good deal, whilst the left was still. During the attack his pulse became very quick indeed. As his skin was generally hot, his pupils contracted, his pulse full and jerking; as he was a vigorous man, who had lost no blood in the accident; and lastly, and chiefly, in the hope of allaying the tendency to convulsions,—I determined to bleed him. We waited about a quarter of an hour after the last fit, during which time his pulse had again become quiet, and we then opened a vein in his right arm. I should have remarked that his cutaneous venous system was very full. The opening in the vein was not very free, and it bled slowly. The man was in the recumbent position. We took twenty ounces, and but little effect was produced on his pulse: it became a little quicker, but not much. He looked much relieved—less dusky in the face. Towards the end he resisted a good deal, remonstrating against our holding his arm, speaking several times. He told me his name when asked. Just as we ended the bleeding, however, he had another convulsion. Its premonitory symptoms were as before—twitching of both eyes, and winking; then his pupils dilated, his face shared in the contortions, and lastly his limbs. This time it was his paralysed side that was chiefly affected. I had hold of his left arm, and although his clavicle on this side was broken, yet he threw the arm into such violent spasms I could scarcely hold it. The muscles of the left side of his face and those of the right side of his neck were also affected violently, almost to the exclusion of those on the right. His head was violently twisted to the left. After this spasm passed off he seemed much weaker than before. His pulse remained at 120, and he looked paler, although still dusky. Several slight spasms occurred before I left him. At 10 p.m. I saw him again. He had meanwhile had large blisters to his nape and calves, and taken croton oil. He was much weaker; pulse 120. He had had many attacks of convulsions, though not so violent as before the bleeding. His bowels had acted freely, and without his knowledge. His left side of face and left limbs appeared, as before, to be paralysed. He was still restlessly moving his right limbs and pulling the bedclothes.

Monday, 2 p.m.—He has passed a restless night, often muttering, and constantly moving his right arm. He now has the interesting symptom of double facial spasm. It has been present for some hours, and is still constant. His eyes twitch constantly, though not quite so much as his face. His lids are constantly winking or "snapping," and his mouth is drawn upwards, outwards, and then downwards. The spasms affect the left side much more than the right, but are present in degree in both. The conjunctivæ are suffused, and there is slight chemosis in addition to the ecchymosis. The pupils are still rather smaller than natural in the shade, but contract decidedly on exposure. He still mutters; his pulse is quick and feeble; his hand (right) is clammy and cold; his feet are warm and dry; knees cool; his scalp is warm, and covered with drops of perspiration. We are applying ice to his head.

The spasms continued till death, which took place on Tuesday, at 7.15 a.m.

Autopsy.—There was very slight evidence of contusion on any part of the scalp externally. In the cellular tissue beneath the occipito-frontalis there was widely diffused ecchymosis; no thick clot, but an infiltration of the tissue over almost the whole of the skull. There was a linear fracture across the vault, which permitted of some slight movement. This fracture passed obliquely downwards and forwards on the left side near the line of junction of the squamous with the greater wing of sphenoid bone. A very narrow fissure crossed the left anterior clinoid process, and ended in the body of the sphenoid. On the right side the fracture ended in the suture between the mastoid and occipital bones. On neither side was there any injury to the petrous bone. The outer and under parts of the right anterior lobe were extensively contused and lacerated. A considerable quantity of coagulated blood adhered to the lacerated brain structure, and occupied the arachnoid cavity. Some of this (very little) had passed under the tentorium to the upper part of the cerebellum. The pia mater covering both hemispheres was extremely congested, and in parts ecchymosed; its large veins were distended with dark blood. The longitudinal sinus was empty in its anterior two-thirds, and contained only fluid blood in the posterior third. The lateral sinuses contained a little soft blood-clot. The lungs were much congested. The structure of the hemisphere on the injured side was speckled with minute blood-clots. Nothing was found in any part of the mesocephale or cerebellum.

(*To be continued*).

ORIGINAL COMMUNICATIONS.

ON THE MORPHINE TREATMENT OF DELIRIUM TREMENS.

By EDWARD NICHOLSON, S.Sc. Cert. Camb.,
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At the outset of my military life I adopted, for the cases of delirium tremens so common amongst soldiers, the morphine treatment recommended by Prof. Roser, of Marburg.(a) He pointed out that patients are lost by timidity in not prescribing opium in sufficiently large doses, under fear of poisoning; he advised energetic doses of morphine, commencing with one or two grains, and giving one grain hourly until deep narcotisation occurs. I cannot say exactly how many cases I have treated on this plan, but I may say roughly about fifty, and have always found it safe, quick, and attended with the minimum of trouble. I have had but two fatal cases of alcohol-poisoning: one was alcoholic apoplexy in a man detained under suspicion of approaching delirium tremens; the other was a man who, having been successfully treated twice within a few weeks, had a third attack of delirium tremens, was brought to hospital in an insensible state, and died in a few minutes after I saw him. Neither of these cases had any narcotic treatment.

In a case of evident delirium tremens I give at once two grains of morphine, in violent cases as much as three grains; this is repeated after two hours if no effect is apparent. A third dose, making a total of eight grains within four hours, has sometimes been required. The patient generally falls to sleep after the second dose, and awakes cured. Sometimes a further small dose (one grain) may be required, but the patient is reasonable, and all trouble at an end. I will quote the only case I have seen since my return from India, a rather clumsily managed one, as I was rather out of practice, and I also thought it well to try if smaller doses of morphine might not be required in England.

September 13, 1875.—A prisoner, detained yesterday for shakiness; he is an old drinker. He was treated with laudanum and chloric ether, of each twenty drops thrice in the day. Rather less shaky to-day; to have a purgative and another opiate dose at night.

14th.—Improving; no shakiness. Beef-tea diet, with rice pudding.

15th.—Last night he was very restless; he has decided delirium tremens; he sees devils, and exorcises them from his prayer-book. 10 a.m.: Morphine one grain at once. 12 noon: No effect; morphine two grains. 2 p.m.: Has slept and lies quiet. 6 p.m.: Ditto. 10 p.m.: Getting rather restless; morphine one grain. 12 midnight: Still restless; morphine one grain.

16th.—Slept well all night; looks better. Beef-tea diet.

17th.—Morphine one grain was given last night, though perhaps hardly necessary. Improving.

18th.—No morphine was given last night. To have quinine two grains, in tincture of chloride of iron ten drops, thrice daily.

19th.—Well. Continue the medicine.

24th.—Discharged.

Contrast this case, which was not so neatly managed as it might have been, with cases treated by nursing and stimulants, or by the usual routine of anodyne treatment. In the

(a) *Archiv der Heilkunde*, 1861.

one there is not the slightest anxiety, and all disorder is over within a couple of hours after the patient's admission. In the others the hospital is in an uproar for two or three days and nights; relays of comrades are on duty restraining the terrified patient; the servants are constantly on foot attending to the multifarious diet and remedies prescribed; the hospital sergeant is up night and day seeing after the case, to the neglect of his other duties; the medical officer is in a state of anxiety, afraid to leave the neighbourhood, and trying all the resources of pharmacy and cookery. Contrast with the case I have given the following two cases from the "Army Medical Reports for 1867":—

Case 1 died in thirty-six hours after admission. He was treated in the first twenty-four hours with three draughts of laudanum, then with one drachm of laudanum, and towards the close of the case with one or two half-grain doses of morphine; beer and brandy being given at various times.

Case 2 showed the following course:—Three days of approaching delirium tremens, which anodyne and other treatment failed to prevent; two days of severe delirium treated by a few half-drachm doses of laudanum, by one- and two-drachm doses of tincture of digitalis, by henbane, chloric ether, purgatives, egg-flip, turpentine stupes, blisters, ice-bags, douches, beer, brandy, etc. The results being very unfavourable, a grain and a half of morphine was given, and within three hours afterwards a grain and a quarter of morphine was injected subcutaneously in two doses. He slept at once, and the next day was well.

These two cases are most instructive. They show the utter uselessness of opium in ordinary doses, the great value of its alkaloid in high doses, and how important it is to distinguish between what I may call the opiate or ordinary dose treatment and the morphine or high dose treatment. It is probably owing to want of this distinction that discredit has been cast upon the general plan of treatment by opium, and that in manuals of medicine likely to be of considerable influence on army surgeons they are warned that "the two most fatal errors which can be committed are either to *bleed* the patient or to give him *opiates*. The cases of those treated by opiates are apt to terminate by convulsions and coma. . . . Opium may be administered with safety and advantage only in protracted cases, provided the quantity given in twenty-four hours is never allowed to exceed the full dose which would be considered safe for a healthy person of the age and sex of the patient."(b)

The cases I have quoted show that the danger is precisely in these ordinary doses of opium, and that the beneficial effects are obtained by giving at once such a dose as would endanger the life of a healthy person, and repeating it rapidly until sleep is produced. I may recall Orfila's opinion(c) that "opium employed in strong doses ought not to be ranked among the narcotics or the stimulants; it exercises a peculiar mode of action which cannot be designated by any of the terms at this moment employed in the materia medica." Of course this is meant as applying to the diseased, not to the healthy, state. An analogous difference of action is to be seen in the case of ipecacuanha when given in high doses as a remedy for dysentery, or even better in the use of the tincture of digitalis in half-ounce doses against delirium tremens. The digitalis treatment has one advantage—that the remedy is nearly invariably used in the full doses recommended at the time of its discovery: hence its general success. While the morphine treatment, which is, when properly conducted, the safer of the two, is apt to be discredited in consequence of the substitution for it, by the timid, of the dangerous system of trifling with small or ordinary doses. The digitalis treatment is far more likely to be carried out, and there is little fear of ten or twenty drops being substituted for the proper half-ounce dose. It is to this very plain treatment that I might perhaps ascribe the diminished fatality of delirium tremens in the army. The results for the two sexennial periods included between 1861 and 1872 are as follows:—

	Home.			India.		
	Admissions.	Deaths.	Per cent.	Admissions.	Deaths.	Per cent.
1861-66 .	479	27	5·6	1203	141	11·7
1867-72 .	777	32	4·1	1828	123	6·7

In conclusion, I would draw attention to the small success of attempts to avert threatened delirium tremens by ordinary doses of opium. These appear to be useless, while one hesitates to use high doses without positive certainty of the imminence of the disease. I would say that in my experience delirium tremens cannot be averted, did I not remember that "precautionary measures are always invidious, for when they are most successful their necessity is the least apparent."

Sheffield.

(b) Dr. Aitken's "Outlines," page 579; also in his larger work on "Medicine."

(c) "Toxicologie Générale," quoted by Pereira.

ON THE

THERMAL CHANGES IN EPILEPSY AND THE EPILEPTIC STATUS.

By W. BEVAN LEWIS, L.R.C.P. Lond.,
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Few diseases have offered to the pathologist a more interesting field for scientific research, and for the exhibition of scientific acumen in the translation of morbid phenomena, than the epilepsy of modern writers on nervous disease; and varied truly are the expressions of authorities on the pathogenesis of this malady—their views being as diversified as the symptomatic phenomena presented by the epileptic seizure. From the earliest period, when the Greek, Jewish, and Roman philosophers ranked the unfortunate victim with the maniac as the subject of demoniacal possession, down to the present day when a glimmer of light illumes the dark recesses of these pathological enigmas, and bids fair to call cosmos out of the chaotic din of conflicting opinion, no subject, perhaps, has been more fully or carefully investigated—and still its etiology is *sub judice*. One of the clearest and most satisfactory explanations as yet offered to the medical world on this subject is that given by Dr. Hughlings-Jackson—an explanation supported, it appears to me, by weighty argument and still more telling facts. One method of inquiry offering a fair criterion of some of the statements included in his theory, and which forcibly substantiates his deductions, has been, I fear, rather neglected. I allude to the thermometry of epilepsy carefully studied just prior to an attack, during the seizure, and in the inter-paroxysmal period. Undoubtedly one explanation of this apparent oversight is the rarity of cases where the onset of the seizure is marked by prodromal phenomena of sufficient protraction to allow of a fair thermometric observation being taken prior to the seizure. The thermal movement, due to increased muscular exertion in the convulsion, is also a fallacious element which we must eliminate from the equation ere a genuine deduction can be drawn. Deductive methods of research have ever rewarded the inquirer with more successful results in the pathology of this obscure affection than any direct pathological investigation by the scalpel and microscope, however laboriously and carefully employed; and the names of Todd, Weber, Kussmaul, Tenner, and Brown-Séquard are sufficient guarantees of the care and discrimination displayed in the application of physiological and pathological laws, based upon repeated and ingenious experiment, in the elucidation of the epileptic paroxysm. Whatever methods of research, however, were employed, great discrepancies in the opinion of different observers were displayed, and whilst the site of the lesion productive of epileptic convulsion was by some relegated entirely to the cerebrum (Georget, etc.), others considered it as co-extensive with the origin of the cranial and spinal nerves (Prochaska, Marshall Hall), or limited it to the medulla oblongata (Van der Kolk). The three most important theories of late offered to the profession are those of Radcliffe, Reynolds, and Hughlings-Jackson; and as my special series of observations entirely support the views of the latter authority, I shall have to revert frequently in this article to his teachings in regard to epilepsy.

The case of E. C., which first afforded me the opportunity of studying the thermometry of epilepsy, was one of special severity, and exhibited a most remarkable and regular periodicity in the occurrence of the fits. The convulsive seizures occurred monthly, and extended over a period of five days. From 8.50 a.m. up to 5 p.m. each day there were five or six series of attacks, showing in most cases an exact correspondence in the period of the onset; but, taking the most exceptional cases, where the greatest variation was observed, along with those attacks occurring at regular intervals, we observe the following as a short account of the attacks during five months of the patient's history:—

Out of a total number of twenty-five seizures, fully twenty-two occurred between the hours of 8.50 and 9.25 a.m.

Out of a total of twenty-four seizures, twenty-one occurred between 10.20 a.m. and 10.50 a.m.

Out of a total of twenty-three seizures, twenty occurred between 11.15 a.m. and 11.55 a.m.

Out of a total of twenty seizures, seventeen occupied the period of 1 p.m. to 1.30 p.m.

Out of a total of twenty seizures, seventeen took place between 3 p.m. and 3.5 p.m.

Thus, from a grand total of 112 seizures, at least ninety-seven occurred at regular intervals, the greatest variations being little over half an hour.

The case was a remarkable one from whatever aspect it was viewed, but, having pointed out the remarkable periodicity of the convulsive onsets, which enabled me to study the thermometry satisfactorily, I shall limit myself in my further remarks strictly to this view of the case. It was at a suggestion of Dr. Herbert Major's that temperatures were taken in this case, and I commenced with a record of morning and evening temperatures for a period of a week or nine days prior to the attack. Table A embodies the results of these observations on two occasions, and it will be observed that a morning fall and evening rise often constituted a marked feature.

Table A.

Temperature in axilla (case of E. C.). Thermal movement *preceding* the attacks :—

Date.	Evening.	Date.	Evening.
June 17 ..	.. 98·6° Fahr.	July 13 ..	.. 99° Fahr.
18 ..	.. 99·2	14 ..	.. 99·3
19 ..	.. 99·6	15 ..	.. 98·8
20 ..	.. 99·4	16 ..	.. 98·8
21 ..	.. 99·6	17 ..	.. 99·7
22 ..	.. 99·6	18 ..	.. 99·6
23 ..	.. 99·6	19 ..	..100·4
24 ..	..100·4	20 ..	..100·2
25 (*First epileptic seizure*)		21 ..	.. 99·6
		22 (*First epileptic seizure*)	

Table B, on the other hand, records the temperature taken immediately preceding the convulsive seizures, and the *extreme* fall before the commencing elevation of an approaching attack. The tracing for June 26 also gives the maximum temperature induced by the muscular convulsion, but this was not taken into consideration in the tracing for July 22 and 23. The administration of chloral was always followed by sleep and arrest of the convulsive seizure, so that the elevations of temperature on the Table B indicate no longer tissue-changes in the muscular system. This constant rise after the administration of chloral is a point of great interest, and will be alluded to below. The following table embraces the same observations, including also records for June 28 :—

Table B.

Temperature in axilla (case of E. C.) :—

	1. Onset of fits.	2. Termination.	3. Extreme fall.
June 26.—			
10.45 a.m.* ..	98·6° Fahr.	99·6° Fahr.	98·6° Fahr.
11.45 „ ..	99·4	99·9	98·6
1.30 p.m.* ..	98·6	99·2	98·2
3.50 „ ..	89·2	100·4	98·9
5.10 „ * ..	99·2	99·6	98·8
6.30 „ ..	99·2	100·4	98·6
7.40 „ ..	99·4	100·6	98·6
June 28.—			
10.45 a.m. (not recorded).			
11.45 „ ..	99·6	100·2	99·6
1.30 p.m. ..	99·6	100·1	99·0
3.20 „ ..	99·0	99·6	98·6
5.25 „ ..	99·8	100·3	98·6
July 22.—			
11.45 a.m.* ..	99·8		99·6
1.30 p.m.* ..	100·0		99·4
2.15 „ ..	99·6	Not recorded	98·8
4.5 „ ..	99·2		99·0
5.30 „ ..	100·0		Not recorded.
July 23.—			
11.45 a.m. ..	99·9		99·4
1.30 p.m. ..	100·0		99·0
3.35 „ ..	100·0	Not recorded	98·8
6.30 „ * ..	100·0		98·6

(The asterisks mark the periods when the fits were arrested by chloral.)

The subjoined table gives, for comparison, the results of observations taken in both axillæ at the onset of a great number of convulsive seizures in a man who was in the special condition known as the status (case of J. B.):—

Table C.

Period of onset.	Right axilla.	Left axilla.
6.10 p.m.	98·6° Fahr.	100·2° Fahr.
8.30 „	98·6	100·4
10.20 „	98·6	100·0
10.27 „	98·6	100·4
10.32 „	98·6	100·6
10.40 „	98·8	100·4
11.10 „	98·6	100·4
12.15 a.m.	99·4	99·8
12.40 „	99·4	99·8
12.50 „	99·2	99·6
1.20 „ (*Last seizure*) ..	98·8	99·4
2.30 „	98·8	98·8

The nutritive activity of the brain-cell expresses in its nature and degree the quality and quantity of potential energy accumulated and stored up for future utilisation. Dr. Hughlings-Jackson assumes that the paroxysms of the epileptic are but discharges of this energy from foci whose nutrition has been excessive in quantity and abnormal in quality. Now, it is self-evident that if this accumulation of latent energy be constantly proceeding in the motor elements of the brain in a state of healthy functional activity, and its reappearance as actual motor energy during a discharge depends upon uncertain and irregular stimuli, some safety-valve must be provided, or constant accumulations to an explosive tension would supervene. That these conditions are provided for we may rest assured, nor do the teachings of physiological and pathological science fail to afford us a clue towards the unravelling of this difficulty. The maintenance of muscular tonicity, whether of the voluntary or involuntary system of fibres, inclusive of the contractile fibres of the vascular network, establishes a continuous demand upon the nervous centres, and hence a channel for the uninterrupted flow of kinetic energy is found in the cerebro-spinal and sympathetic system of nerves. If, also, with Hammond, Duchenne, and Joffroy we accept the doctrine that the hypothetical *trophic* nerves really have a separate existence, we must recognise in them a similar agency towards the same ends.

But yet there remains another means whereby the continuous utilisation of actual energy is effected. For just as nutrition may vary as to quantity and quality, a similar variation must be extended to the ultimate results of this nutrition; in other words, the same features must be stamped upon the general resultants—the functional manifestations of the part. For this reason I do not think it sufficient, when applying this principle to the elucidation of the epileptic paroxysm, to maintain that the resultant of this duplex abnormality in the nutritive capacities of the brain-cells is simply libero-motor activity upon an exaggerated scale, but that *quality* as well as *quantity* is here involved, and that therefore a discharge of *thermal* energy may replace partially or *in toto* the normal force. Leaving out of consideration for a time the application of this doctrine to the abnormal actions of diseased centres, we will briefly glance at the validity of this principle when brought from the pathological to the physiological sphere of actions. Is it rational to conclude that in a state of *healthy* action the disintegration of the brain-cell may be expressed in thermal or libero-motor results, or both, corresponding to the requirements of their environment? The production of animal heat and its variations depends almost exclusively upon mechanical and chemical agency. The thermal expressions of mechanical work bear but a very inconsiderable value compared with the results of chemical action, for though the incessant flow of nutritive fluid and varied and powerful action of individual muscles in this system of sleepless, unintermittent activity ceases but with death, yet the frictional results are reduced to a minimum; and the dynamic equivalent of such work does not at present affect our inquiry. The prime factors in the maintenance of animal heat are undoubtedly the muscles, but we must also bear in mind that the brain, as an organ possessing the most extensive vascular and nutritive relationships, is ever subject to molecular changes of the most active and energetic character, necessitated, indeed, by the extremely unstable equilibrium in which the elementary constituents of the cortex are held. Dr. Thudichum, in his elaborate and valuable researches into the chemical statics of the brain,

forcibly impresses our mind with the instability of its constituents and the spontaneous lysis to which some (as the sub-group of Lecithines) are subject. I cannot do better than quote his words on this peculiar feature: "We have, therefore, here a diversity of affinities such as is not possessed by any other class of chemical compounds in nature at present known; and the exercise of these affinities being greatly influenced by the mass of the reagent, and the mass of water which may be present, the interchange of affinities may produce a perfectly incalculable number of states of the phosphorised and consequently of brain-matter. This power of answering to any qualitative and quantitative chemical influence by reciprocal quality or quantity we may term the state of *labile equilibrium;* it foreshadows on the chemical side the remarkable properties which nerve-matter exhibits in regard to its vital functions. From this it also follows that nerve-matter (if only as characterised by the phosphorised bodies) must yield obedience to every--even the slightest—external chemical influence which may reach it by way of the blood. It must take up metals, acids, salts, alkalies, and alkaloids presented by the blood; it can only retain oxides when the serum is again free from the combinants; a watery serum will wash the brain; a more watery will make it swell, and displace mechanically within physiological limits what it can; a still more watery one will make the brain dropsical, and produce all the conditions of mechanical pressure on the brain." Again, if we refer to the numerous analyses instituted by the same observer on the various members of the phosphorised group of principles, we cannot but be struck by their richness in carbon and hydrogen. We know not the immediate products resulting from brain-work; possibly the change from the complex constitution of the original substance to the simple forms in which they appear when eliminated may be a gradual descent through series of less and less complexity in molecular arrangement. Whether this be so, or whether oxidation takes place more directly and completely, remains yet to be proved; still, we are alive to the fact that the latent energy which the carbon and hydrogen elements possess is enormous. The complete oxidation of one gramme of hydrogen—the clash of the oxygen and hydrogen molecules—is attended with the evolution of thirty-four units of heat, or its equivalent of 14,416 kilogrammetres of motion; the conversion of one gramme of carbon into carbonic anhydride evolves eight units of heat, or 3392 kilogrammetres of motion. These figures cannot fail to impress us with the vast amount of potential energy, which, derived from the elements of the food, and stored up in the laboratory of the brain, only await the advent of the necessary conditions to reappear as actual force correlated to the original solar energy. The chemical theory of calorification must hold good in the case of the nervous system as with the rest of the animal economy. Many years ago, Sir B. Brodie(a) demonstrated by most conclusive experiments that a withdrawal of the encephalic influence results in rapid lowering of temperature even in cases where the carbonic acid exhaled was equal to its normal amount. MM. Le Gallois(b) and Chossat(c) fully confirmed these views by later observations, without suspecting for an instant that any correlation existed betwixt heat and nerve-force. Carpenter,(d) however, expressly states that, as in the electric phenomena witnessed in the torpedo, etc., nerve-force may, under special circumstances, reappear as heat or some other correlated force.

(*To be continued.*)

(a) *Philosophical Transactions*, 1811-12.
(b) *Annales de Chimie*, 1817.
(c) "Mémoire sur l'Influence de Système Nerveux sur la Chaleur Animale."
(d) "Principles of Human Physiology," 4th edition, page 649.

PERNICIOUS FEVER: FEBRIS ALGIDA AND FEBRIS COMATOSA.

By JOHN SULLIVAN, M.D., M.R.C.P. Lond.

It may easily be imagined that the poison of malaria, in proportion to the degree of its intensity or destructive power to the susceptibility or the bodily condition of the recipient of such poison, may generate a fever, which, from its tendency to paralyse all nerve-power, and to promote a dissolution of the elements of the blood, may justly be denominated "pernicious fever."

No poison has ever introduced itself into the human system so capable of producing effects so varied, of assuming such questionable shapes, of wearing so many masks and disguises, as the poison of marsh fever,—effects which vary in degree from a slight depression of nerve-power to a partial extinction of sense, and even to the complete destruction of life. But the poison of malaria will often lay concealed in the system like a coiled-up serpent, ready at any moment to dart its venom to complicate and exaggerate any disease to which the body may be subject, if it do not completely control and subject such body to its undivided influence; or it will take upon it so many Protean forms that its victim will be thrown off his guard, and probably die from its masked effects. But under no form does malaria show itself with so great intensity as under the form of pernicious fever. This fever may appear under the form of algid or of comatose fever, with all their varied complications—febris algida being the most complete expression of the true nature of the poison, paralysing all nerve-power, determining the blood to internal organs, and thus producing that intense algidity as of death; while febris comatosa is marked by an especial malarious determination to the brain, producing an anæmic contraction of arteries as in a fit of epilepsy.

It sometimes happens, while attending upon a case of intermittent fever, when we imagine that the case is progressing satisfactorily and with all due regularity, on a sudden we observe the symptoms to alter greatly for the worse: one or more of its stages may become present in great intensity, complicating or placing in jeopardy one or more of the organs essential to life. In the tropics, pernicious fever may be seen in all its most formidable array, complicating the various types of intermittent, and tending to aggravate a variety of morbid states which have no necessary connexion with the poison of malaria. The prognosis must depend upon several conditions. Suppression of urine is an alarming symptom, but should the secretion be restored, an improvement is sure to follow. Convulsions, frequent in children, are, perhaps, next to black vomit, the most dangerous symptom; when they make their appearance at the close of an attack of fever, there is always danger to life. Vomiting of black matter is fatal to adults; I have seen children occasionally recover.

There are two symptoms which, when they do occur in the course of an intermittent, always occasion me great alarm and anxiety. The one is an acute pain which fixes itself in some part of the body—sometimes in the side, like an attack of pleurisy, at others it strikes upon the hip-joint. Now, from long experience I have always found the accession of these pains to be a very ominous symptom. The second symptom, of still rarer occurrence, is the vomiting of blue (not black) matter; it may occur in the adult who has suffered from marsh cachexia, or from chronic diarrhœa.

Pernicious fever, the reverse of yellow fever, may repeat itself. I have known persons whose life was always a burden to them from the fear of a fresh attack. All races suffer from it. Old people often die from it. I have seen children attacked by it two or three times almost imperceptibly, then begin to vomit up a blackish fluid, followed by convulsions and death.

In children, when fever is ushered in by general or partial convulsions, the symptom is generally fatal, as indicating a tendency to the same manifestation in every succeeding attack.

All chronic diseases in tropical climates, all deep-seated causes of debility, privation, and suffering, the emotions from grief or anxiety, alcoholism, predispose to attacks of pernicious fever, since malaria directly attacks nerve-power, and when this has been shattered from the above causes, it becomes more sensitive to its influence. The varieties of pernicious fever characterised by some violent predominant symptom may be classed into two principal groups—febris algida comprising the fainting, dysenteric and choleraic varieties; febris comatosa, the tetanic, lethargic and convulsive.

Algid Pernicious Fever.

Febris algida would appear to be the most faithful manifestation of the *modus operandi* of the poison of malaria on the living organism—perhaps the only pathological base upon which all other pernicious fevers rest, so that it will sometimes appear in its naked uncomplicated form as a termination of pernicious fever.

The progress of algidity is usually insidious; it often shows itself in the middle of an apparently simple attack of inter-

mittent. The patient appears in his usual health; presently the face turns pale, the features become sharpened and drawn in, the lips turn blue, the eyes hollow, the pupils become dilated, the pallor and coldness gradually go on increasing, and cold, clammy sweats pervade the entire body; you might fancy you were gazing on a corpse. The hands and feet first turn cold, next the extremities; the abdomen alone preserves some heat. If you touch the skin it feels like marble, and yet the patient complains of a sensation of heat internally. The tongue is the last to become cold, and when the air expired is colder than that inspired, the danger becomes imminent. The urine is often suppressed as the algidity increases; the skin becomes more and more bathed in a cold perspiration. The heart beats slowly and is scarcely audible; the pulse thready, not to be felt at the wrist. The intellect is unimpaired. The patient does not complain of any particular pain. Respiration, from being calm and slow, becomes anxious and rapid. To a calm succeeds a vague sense of uneasiness, which is soon replaced by a feeling of approaching death.

The most remarkable case of algid pernicious fever that I ever witnessed was the following, which I will now relate. In the present year (April, 1875) I was called to visit the wife of D. B. M., a well-known sugar planter in Cuba. She had been delivered of a child about two months before, at which time she complained of slight chills and fever; since then severe intermittent had set in. I was greatly surprised on my arrival at the consternation and dismay depicted on the countenances of the patient's friends and attendants. I decided upon taking a view of the patient unseen by her. She was seated in an arm-chair, the arms of which she firmly grasped with both hands; the body slightly inclined forwards, rigid, erect; the face was pale and cadaverous, the countenance expressive of anxiety and terror, mixed with a certain degree of sadness. She looked as it were on vacancy, and took no notice of those who surrounded her. On my entering the patient's room, she directed an anxious and inquiring look towards me, as if conscious who I was, and desirous to be relieved. I took her hand, which, as well as the entire body, was bathed in a cold, clammy, icy sweat; no pulse at wrist. She could only reply to my questions in a whisper, but a whisper deep, cold, and unearthly. The heart's beat was strong and even tumultuous, as though labouring hard to upheave and dislodge the mass of blood by which it was oppressed. The right heart communicated its impulse to the jugular veins,—hence strong venous pulsation.

I found, on examination, considerable congestion and enlargement of the spleen, and induration of an atrophied liver. I ordered a hot mustard foot-bath, ten grains of calomel, with fifteen grains of quinine, to be taken immediately,—the dose to be repeated in two hours' time; frictions of quinine in brandy (two to six drachms) to be rubbed over the extremities and down the spine every half-hour. About four hours after my first visit the heat of the body returned, and the patient was enabled to lie down in her bed, which she had not been able to do during the last three weeks. After the second dose, I followed up the calomel and quinine in smaller proportions—two grains of calomel to four of quinine every four hours. I ordered besides, in order to promote the partially suspended secretion of urine, two tablespoonfuls of a strong diuretic mixture every two hours, and placed over the loins (a custom peculiar to the country people) some digitalis leaves wetted with vinegar. After eight hours had elapsed, considerable relief was obtained and all the symptoms improved: the secretion of urine was restored, circulation became less impeded, and some sleep was procured. The algidity returned daily about 3 p.m. for three successive days, but in a gradually milder form, of less duration; and the patient finally completely recovered. This case I regard as very instructive and interesting, as it is a complete manifestation of the effect of malaria upon the human body. It would seem that the miasmatic poison availed itself of the new inlet into the system by the medium of the raw and dilated surface of the vagina and uterus after delivery—a medium through which, under similar circumstances, other septic poisons have been introduced, and with fatal effect, into the system. This intensified dose of malaria would appear to have generated algid pernicious fever. Large doses of quinine in this case proved most triumphantly its value and its nature as an antiseptic.

The diagnosis is easy when the pernicious fever is simple, but when complicated with dysentery or cholera it is rather obscure. Between pernicious choleraic fever and Asiatic cholera it is almost impossible to diagnose, especially when the two endemics exist at one and the same time. But between simple dysentery and pernicious dysenteric fever the diagnosis is more easy. The stools are not so bloody; they are more abundant and liquid, and provoke less tenesmus. The antecedents—attacks of fever, algidity, and cold sweats, etc.—make the diagnosis more easy. We must not confound the fever of pernicious dysenteric fever with that which accompanies simple or true dysentery, which is symptomatic; while the fever of pernicious dysenteric fever, being of malarious origin, is independent—a foreign element superadded to the principal malady, which it aggravates and often renders mortal. This is an important fact, worthy to be remembered in our practice in tropical climates. Hence, in the complicated dysentery, all remedies directed to the cure of dysentery will prove useless, so long as we do not neutralise the foreign morbid element by large doses of an antiseptic.

The attack of febris algida consists of one long stage. The cold increases gradually, with cold and clammy sweats; the voice falls to a whisper; the pulse falters, finally ceases; and the patient dies in a swoon. Should reaction take place, the pulse rallies; the heat returns gradually to the surface from the abdomen, in which it would appear to have concentrated itself, radiates to the chest, and thence to the whole body. The cold stage, or state of algidity, may last forty-eight hours or longer. Recovery is often insidious, and may be complicated with symptoms of an ataxic or typhoid nature. The mortality from febris algida is not so great as that from febris comatosa. In the algid state the powers of absorption do not appear to be annihilated, as in the cold access of Asiatic cholera.

Comatose Pernicious Fever.

Insolation is occasionally a most powerful cause. A man who leaves a marshy district, and who travels a long way exposed to a burning sun, is very subject to an attack of malarious apoplexy. The fit may seize him in the evening when the sun has set, or even at night-time when in bed. Like other pernicious fevers, the comatose form especially attacks those who, after a long residence in a marshy district, remove into another free from malaria.

The comatose form is usually preceded by some derangement of the health—by two or three irregular attacks of fever, which may be trivial or scarcely perceptible.

The invasion of coma is violent, its progress rapid, its stages of intense severity: if the patient be seized when standing, he falls down as if struck by lightning; if when lying down, it comes on unperceived, and only to be revealed by his stertorous breathing.

I have never known delirium or convulsions precede an attack of pernicious malarious coma. I remember one patient, who had recovered, told me that he had experienced during two or three days before the attack a creeping sensation up the back, with a sense of suffocation and constriction about the chest. The cold feeling is absent, but the hot stage is soon developed; and, unlike the skin in febris algida, it is covered with a hot perspiration—a frank intermittent is seldom observed. The fit may last from four to five hours, or even to as many days. The characteristic symptoms are: loss of motiou, sensation, and intelligence, with impaired function of respiration and circulation; the patient answers pettishly and in monosyllables; the pupils are insensible to light; some low murmurs of complaint may be often heard, indicating severe headache. The frequent return of motion proves the intermittent character, when the symptoms generally improve. But in cases which threaten to end fatally, we often observe muscular contractions, as trismus, strabismus (complete abolition of sense and motion). There may be violent tonic and clonic contractions; and death often closes the scene, after one or two attacks of black vomit.

The diagnosis is not difficult. The antecedents—previous attacks of intermittent, the paludinous diathesis,—the absence of all plethoric symptoms, will clear the way for a correct diagnosis. The only difficulty is to diagnose between the apoplectic form of pernicious fever and true apoplexy. This occurs but very rarely in the tropics, but may occur to strangers who have lately arrived. We must be careful not to bleed in peruicious apoplexy, as distinct from true apoplexy. Bleeding would inevitably hasten the fatal termination. By not interfering too hastily, by waiting a little, by adopting the maxim *festina lente*, so as to allow the disease to clear up, we may be enabled to form a just diagnosis. The heat and moisture of the skin, the hurried pulse, indicate that the apoplectic fit derives its origin from marsh poison. Post-

mortem examination reveals no inflammation of the brain or of its membranes, nor any lesion to which might be traced the severity of the symptoms. We may find, as in all fevers of a certain duration, the membranes, especially the pia mater, somewhat injected; the cerebral substance redder than usual; some serum infused into the ventricles; and when black vomit has occurred, we shall find the mucous membrane of the stomach of a yellowish tint, streaked with violet-coloured stains.

The almost impossibility of administering proper medicines adds to the danger of this form of pernicious fever. Quinine can be introduced into the stomach with difficulty, by reason of the spasm of the pharynx or œsophagus. We must, therefore, have recourse to injections of the drug per rectum, to frictions of quinine in alcoholic solution so as to produce absorption. In these cases the subcutaneous injection of quinine is a valuable method of its introduction into the system. It possesses the advantage of economy, is easily applied however severe may be the vomiting, difficulty of swallowing, or coma.

Mr. W. Moore, of Bombay, has tried the hypodermic method on a large scale. He assures us that he has injected quinine successfully in 100 or more cases of intermittent and remittent fevers. The quinine must be used in solution, not in suspension. The best time to inject is before the cold stage.

Several French, German, and American physicians have advocated the subcutaneous method in all cases of intermittent, especially where quinine cannot be administered by mouth. I cannot, from my own experience, bear witness to the great advantages to be derived from the subcutaneous method. I have tried the plan eleven times, three times with a certain beneficial result; the effect was always a shorter duration than when quinine was introduced by any other method, and I had to renew the injection frequently. I would have injected more frequently had I not been deterred in my practice by the inconvenience from little accidents arising from the puncture made by the injecting-syringe, some swellings, and often superficial abscesses, which were looked upon by my Spanish patients in Cuba with a most ridiculous degree of anxiety. For my part, I have trusted more, in the treatment of febris comatosa, to revulsives—hot mustard foot-bath, blisters to the calves of the legs, strong injections of quinine per rectum, having previously administered a purgative enema, strong frictions of quinine, etc. It is seldom that this plan fails to develope the malarious origin of this comatose form of pernicious fever; but in no case, however strong the indication may appear, however intense the symptoms may be, must we bleed. A couple of leeches may be applied over the mastoid process. When the tendency towards convalescence becomes established, should speech appear to be somewhat embarrassed, should we observe dulness and uncertainty in the gait, in such cases I have always derived advantage from the combination of calomel and quinine.

Let us consider, before we conclude, why the poison of malaria in a pernicious or highly destructive form produces intense cold (febris algida) in one case, and intense heat (febris comatosa) in the other.

The system of the great sympathetic presides over organic life. It brings into intimate relation and connexion and into sympathetic harmony all, and even the most distant, parts of the human system; and it is through its medium that all impressions and emotions, whether moral or physical, are conveyed, transmitted, and manifested. When this system of nerve sympathy is impressed by the incubus of the miasmatic poison, independently of the brain, a profoundly depressing and paralysing effect is produced as the consequence. This impression is conveyed to the arteries, even to the remotest capillaries, the calibre of which is regulated by the sympathetic, causing—first, dilatation; next, contraction, and consequent obstruction to the circulation. Hence the gradual retrocession of the blood from the extremities; hence the intense cold, and cold sweats. Still, the intellect and the functions of the brain remain unimpaired; and thus is produced that form of malarious pernicious fever, febris algida. But supposing that, owing to certain conditions of the human body, the poison, instead of acting immediately upon the sympathetic system of nerves, should determine violently to the brain, when the body is in the full enjoyment of its natural heat, and in the performance of all its functions: in such a case the body is, as it were, stormed and taken by surprise.

The functions of the brain preside over animal, rather than organic, life; it directs—does not perform—the functions of the great sympathetic, through whose agency life and heat are carried on independently of the brain. We know that animals are sometimes born with a great deficiency or imperfection of brain or cerebral matter; and, nevertheless, life and heat are carried on independently of the brain for a longer or shorter period of time. When, therefore, the function of the brain is suddenly overpowered and paralysed by the baleful incubus of marsh malaria, we have loss of motion and sensation; but the organic functions continue to work on, and the heat of the body—even greater than natural—is kept up to the last, until the patient recovers from the fit, or life becomes extinct. And this constitutes the comatose form of pernicious fever of malarious origin.

Havana.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER MR. DURHAM.

The three following cases are all of considerable interest. The first, from the rarity of the affection in the particular part. The second, from the comparative rarity of cancer in both breasts, and the absolute rarity of an operation on each at the same time. The third case illustrates the success which attends an operation for the purpose of obtaining union after fracture of the long bones. Fortunately, surgeons are not often called upon to resort to such, and none would think of operating until other means had failed. It is encouraging, however, to know from occasional experience that cures can be obtained by art when nature has failed to effect them.

Case 1.—*Sarcoma of Anus—Operation—Relieved.*

James D., aged seventy, sawyer, admitted June 7, 1875. Family history: father was over eighty years of age when he died; mother dead; one brother and three sisters all dead. Last Christmas, a growth, which was much smaller then than now, came down from rectum, and has remained external ever since. It did not cause him much inconvenience, except on account of the running discharge from rectum.

On admission, there is a large irregular fungoid growth about the size of an orange, having a granulating and sloughing surface. It is attached to right side of anus, does not interfere much with orifice, and is very painful to patient. On left side of anus there is a fold of skin and mucous membrane. Between the fold of the left side and the growth of the right the finger can be passed into rectum without much difficulty. Enlarged solid bursa over the olecranon.

June 11.—Chloroform was given. Mr. Durham removed tumour by means of electric cautery. The growth was found to extend some way up the rectum. Growth, on section, was firm, glistening, somewhat fibroid in appearance, and yielded thin serous juice on scraping. Under microscope appeared small oval or oat-shaped cells, with little finely granulated stroma.

23rd.—Patient has progressed slowly. Sleeps and eats fairly well. There is a swelling in the right groin, which is very painful when touched; it is inflamed, and the skin over it is red. There is no vomiting; the bowels are acting. Pain in the groin was first felt on the 21st; the swelling only noticed to-day.

29th.—Patient feels pretty well in himself. Thinks swelling in groin is going down; it is much less painful.

July 5.—Is going on well. The lump in the groin is very hard, but seems to be diminishing.

14th.—Bowels are confined. Lump in groin gets smaller, but is very hard.

27th.—Sat up this morning for a short time, but is rather weak. Swelling in groin is smaller.

28th.—Patient left the hospital to-day.

Case 2.—*Carcinoma of Both Breasts—Excision—Relieved.*

Caroline S., aged fifty-six, housewife, was admitted on January 20, 1875. Family history very good. Has always enjoyed very good health until within the last two or three years, since which time she has been troubled a

good deal with rheumatism. Patient is married; mother of ten children, the youngest one being twelve years of age. Catamenia ceased nine years ago. In the month of May last the patient noticed for the first time a swelling in the left breast about the size of a hazel-nut, which was occasionally painful. It remained about the same size until two months back, since which time it has grown rather rapidly, and has caused her rather more pain.

On admission, patient is of a sallow complexion. In the upper and inner region of left breast there is a swelling about the size of a small egg; it is perfectly movable over the deeper structures, but is adherent to integument, which is slightly discoloured. The nipple is not retracted, nor are there any enlarged glands in axilla. She also complains of the other breast, which she says has not been quite well since twelve years ago, at which time she had a "broken breast." In it there is now a hard swelling, which is movable over the deeper structures, and not attached to skin. The nipple is obliterated; the tumour does not occasion her much pain. The breast is infiltrated by scirrhous growth.

February 2.—Mr. Durham operated to-day on both breasts, the patient being under the influence of chloroform. He made two elliptical incisions in the left breast, including the nipple. The tumour was then dissected out, and the edges of the wound brought together. Torsion was used, but no ligature. The right breast was removed in the same way. Operation antiseptic throughout.

3rd.—Patient vomited slightly after the chloroform, but this morning appears better than could be expected. Complains of slight pain in region of breasts. Tongue dry and coated. Temperature 99·4°; pulse 92.

4th.—Was dressed to-day for first time. Both incisions were found to be healed for about half their entire extent. Some of the sutures were removed. There is a fair amount of discharge. She is very well in herself. Dressed antiseptically.

5th.—Wounds were dressed again to-day, and the left breast was found to be almost healed by first intention, there being only a slight discharge from lower end of wound. The right looks particularly healthy. Dressed with carbolic oil.

17th.—Gets up to-day for a few hours. The right breast is healing fast.

March 10.—Discharged well.

Case 3.—*Ununited Fracture of Radius and Ulna—Operation—Improved.*

William R., aged fifty-six, a mill-worker, was admitted on January 20, 1875. Patient was a healthy man. On June 18, 1874, he was caught in some shafting, and sustained compound fracture of the left forearm. Both bones were broken; there were two wounds about lower part of middle third of arm on palmar surface, through which the bones projected. Was put up on outside right-angle metal splint, which was kept on until wounds healed. Then two splints—an anterior and posterior—were put on, and kept on for about eleven weeks. When removed it was found that no proper union had taken place. Had treatment for ununited fracture (bones ground together), and starch bandage applied. This was kept on until a fortnight ago. When starch bandage was removed there was found an open sinus just below elbow on posterior surface of forearm, which was discharging abundantly. No bony union had taken place. A small piece of dead bone came away just by original wound over radius.

On admission, there is an ununited fracture of left forearm at lower part of middle third. Some amount of fibrous union and good deal of thickening about seat of fracture, and especially about radius. There is a sinus at posterior part of ulna, near the junction of the upper and middle thirds, which keeps discharging.

January 25.—An erysipelatous blush appeared about arm, which disappeared in a few days.

February 16.—Under chloroform Mr. Durham made an incision, connecting the two sinuses down to ulna. The broken ends were found to be overlapping, and there was seen to be a piece of necrosed bone and a little bit of fibrous tissue between the fragments, which prevented union. This was removed with a chisel, and the fibrous tissue was cut away; radius was left untouched until ulna had filled up and united. Arm put up on right-angle splints and oiled lint.

17th.—Temperature 90°; pulse 80. Patient has been in great pain since the operation. Very sick this morning.

22nd.—Arm dressed every day; is lying very comfortably on splint. No pain.

24th.—Arm is looking very well indeed; wound filling up nicely.

March 2.—Arm still going on very well; wound nearly healed. Is dressed with carbolic oil. Pulse 68; temperature 98°.

April 16.—Was sent away from hospital for a change.

May 13.—Readmitted. Wound made by previous operation has quite healed up. Ulna in good line, and there is a fair amount of union, but it is not firm and osseous. There are free movements between fractured ends of radius. Through sinus on posterior surface of forearm, at junction of upper with middle third of radius, necrosed bone can be felt.

25th.—Chloroform given in theatre. A longitudinal incision was made down the whole length of middle third of the posterior surface of the radius. A small piece of necrosed bone was taken away. Sutures were put in and oiled lint applied.

June 17.—Progressing favourably. Bones are not firmly united yet.

28th.—Patient is going on well. Carbolic dressing has been discontinued. Zinc ointment is now applied.

There was hardly any discharge from wounds; bones were becoming firmer; and the patient was discharged.

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Medical Times and Gazette.

SATURDAY, MARCH 11, 1876.

THE ARMY MEDICAL SERVICE.

On Thursday last week, the 2nd inst., the Secretary for War, in moving the Army Estimates, explained to the House of Commons and the nation the Army reforms which he has, after such long consideration, decided on; and it is doing only the barest justice to the right honourable gentleman to acknowledge that his statement is remarkably clear and definite, and its tone as unhesitating and decided. He fully recognises the fact that one of the things most desired by, and most necessary for all departments of, the Army is that any reform or change determined on shall be fully and honestly carried out and maintained, shall possess the character of stability and duration, and that so there shall for some time be an end to a state of constant uncertainty and expectation, or dread of flux and change. Many of the subjects dealt with by Mr. Hardy

possess special interest for the profession—such, viz., as the age, stature, and general physique of our recruits and young soldiers; the marriage of soldiers; and the sanitary arrangements in barracks,—and we shall probably take occasion to speak on these matters at some future opportunity. But the (to us, and as regards the health of our soldiers) most important subject dealt with by Mr. Hardy, and that with which we are now concerned, is the reform of the Army Medical Department. Mr. Hardy admitted that since a change had been made in this Department "there had naturally been a great deal of agitation" throughout it; and the first point he took up was the question of general or regimental hospitals. With regard to this, he allowed that he thought (and no one will dispute his opinion) that the time had come when he ought to pronounce his opinion on it. This he proceeded to do, and very decidedly. He has come to the conclusion "that the idea of going back to the regimental system, after what has been done, is simply out of the question. It is impossible that it should be done without making rearrangements and alterations, which would never work in the time of war." He has convinced himself that the general hospital system "will bring more immediately under the eye of the chiefs of departments everyone qualified to rise; that it will tend to make the Medical Department more efficient—though he is far from saying that it is not efficient—and enable promotion to go on." He therefore approves of it, and "he ventured," he declared, "with great distinctness and plainness, to say that he was not prepared any longer to listen to complaints on the subject. He had come to a conclusion upon it, and it was a conclusion on which he meant firmly to act." We do not care, and it would be quite useless, to criticise or dispute Mr. Hardy's decision on this question, and it must, at any rate, be allowed that there was no approach even to unanimity of opinion on the matter among the Army Medical Officers themselves; but we imagine that everyone, whatever his own opinion or predilection may be, must grant that it is a gain to have the matter at last decidedly settled.

Then Mr. Hardy went on to propose his scheme for meeting the want of candidates to enter the Service, and the want of promotion for those already in it. His scheme is, in part, a short-service system, but we admit that it differs greatly in the terms offered from the rumoured terms on which we commented unfavourably a short time back. The candidates for the Service will have, if we understand Mr. Hardy rightly, to undergo a severer examination; they will have, on entering the Service, £250 a year—£300 a year counting allowances—from the beginning; and at the end of ten years they will have on leaving the Service a bonus of £1000, while "the heads of the Medical Department will have the power of selecting from among them such a number as will be sufficient to fill the vacancies in the higher ranks, and to keep up the flow of promotion." This, Mr. Hardy believes, will ultimately be found to be a cheap system; for "much less will come upon the non-effective vote," and "the mobilisation scheme will be assisted by the fact that there will be numbers of medical men who will be able to act upon an emergency, and who, although—because of being married, or from other reasons—they may desire to retire at the end of ten years, yet will continue to retain their military predilections, and will not regret to find themselves again among their old comrades." We do not doubt that these terms will most probably attract a sufficient number of young men to compete for medical commissions. The proposed pay and the bonus are, both of them, liberal; and the Service enables them to acquire professional experience, and to visit different parts of the world in a pleasant way; it enables them also to make many acquaintances, and gives them a desirable status in society. But we still hold that the Service is not a good school for preparing a man for civil practice. And if, as we suppose, every man will be at perfect liberty to retire at the end of ten years if he wishes to do so, it may be doubted whether the Department will be able to retain a sufficient number of the best among them; though, no doubt, some of the ablest and most efficient will prefer continuing in the Service to trying their fortune in private practice. Much will depend on the principle on which the "selection" of those to be retained is to be made—and on this point we have no definite information,—and still more will depend on the terms offered to those who stay. These terms are that "for the first two years their pay shall be increased to 17s. 6d. a day; that at the expiration of twelve years"—that is, at the end of the additional two years—"they shall become Surgeon-Majors, with £1 a day; and that five years after that they shall have £1 8s. a day." This part of the scheme provides that every Surgeon retained in the Service shall certainly attain the rank of Surgeon-Major after twelve years' service; and that after seventeen years' service his pay—not counting allowances—shall be £456 a year.

The pay on entering is increased, and a handsome bonus given to those who retire at the end of ten years. "While if a man during his ten years of service should, from sickness or otherwise, require a provision at certain periods, he would receive a portion of the £1000 bonus, so that he would not go away as a pauper, but as a man who had done something for his country." And for those who go on in the Service "there will be rank, money, or pension, and distinction by selection." Mr. Hardy spoke with great frankness and courage of the most unsatisfactory state of things at present. The medical schools do not, he said, send up some of their best young men to the examinations for the Army. "There were forty-five vacancies, for which there were only twelve candidates, and they had been obliged to take some candidates who had been previously rejected; and he was of opinion that it was very undesirable that a class of medical men whose attainments might be said to be low should be placed in a very difficult service, in which they would have great dangers to encounter." For those who do remain in the Service longer than ten years, chance of promotion is to be increased by providing that the Surgeon-General and the Deputy Surgeon-General shall retire at the age of sixty instead of sixty-five, and that "their retirement shall be compulsory, without any exception." "Promotion," he said, "is the soul of the Service. Without promotion there would be no hope, without hope no emulation, and without emulation the Service would be dead and apathetic." The new scheme undoubtedly offers, as is most lamentably needed, increased attractions to the Service; but, as undoubtedly, the amendments proposed will by some be considered to fall much short of what is desired. But Mr. Hardy "has long given up the idea of hoping to please everybody." He has, as he with unquestionable truth admits, "been very slow" in arriving at a conclusion with regard to the subject of Army Medical reform; and the scheme he has at last propounded seems to him to be "the most effective, and most likely to be the most beneficial to the soldier." He believes that by its means "talented, earnest, and able men will be induced to enter the Army, some of whom afterwards the heads of the Department may feel justified in promoting to very difficult situations." We are inclined to think that the scheme does, at any rate, go not a little way towards securing this; and we shall be rejoiced if, as its details are more fully known and considered, it does suffice to restore popularity, content, and efficiency to a very noble as well as important Service.

The minor details of the treatment of Medical Officers during the period of their service will have to be well considered. Little ills are worse to bear than great ones, and a vexatious trifle as to uniform, mess, or quarters, might make the Service a hotbed of discontent.

REGISTRATION OF MEDICAL WOMEN.

We have been favoured by the Dean of the London School of Medicine for Women with a very long report of the reception by the Duke of Richmond of a deputation of "ladies and gentlemen interested in the question of the registration of properly educated women as practitioners of medicine in the terms of the Medical Act (1858)." The report of all that was said by each speaker would, no doubt, be very interesting to anyone personally or in any other way specially interested in the matter, but we fail to find in it anything forcible enough or new enough to justify our finding space for it in our columns. The deputation, which included Lord Aberdare, Mrs. Garrett-Anderson, M.D., Mr. Forsyth, M.P., Miss Jex-Blake, and other persons, was introduced by Mr. Stansfeld, M.P.,—not a particularly happy choice, we should think, considering the line in which that gentleman has of late gained notoriety! He said, *inter alia*, that the object of the deputation was to ascertain the intention of her Majesty's Government with regard to the Medical Women question, and he considered that the time had come for the Government to take action in the matter. He also stated that he believed "that the sensitiveness, quickness, delicacy, and self-possession, in which women so frequently excelled men, were all qualities highly fitting them for medical practice." We venture to say that medical men in general, who probably know as much as Mr. Stansfeld does about women, and a great deal more than he does about the requirements of medical practice, very decidedly differ from him; that they do not credit women with possessing any remarkable amount of "self-possession," and think that some of the qualities mentioned by him make them specially unfit for medical practice. This part of Mr. Stansfeld's address, has, however, at any rate, the merit of novelty. Dr. King Chambers attributed great importance to the fact that, as he believes, a large number of the members of the British Medical Association have returned affirmative answers to a circular, asking their opinion as to "the admission of women to the membership of the Association." But we must observe that the inquiry is as to the admission of "female practitioners"—*i.e.*, legally qualified female practitioners of medicine,—to an Association, to the membership of which all legally qualified practitioners are eligible: a very different question, it seems to us, from the question of the admission of women to the profession. The Duke of Richmond was very cautious; and, of course, said "the Government had the matter under consideration." He also said, with much *naïveté*, that "the question seemed, in the first instance, to rest with the examining boards; as, if they consented to admit the women, *cadit questio*, and the need for legislation would disappear." Just so. The great question is, Are women to be tempted to enter the medical and the other learned profesions? for if one is opened to them, all must be opened. The Government would, no doubt, be very glad to have the responsibility of settling the matter taken off their shoulders; but we presume to think that a question of such importance, and involving such large issues, ought to be settled by the Legislature. Lord Aberdare said that equal justice is demanded for women and men, and that all candidates should be admitted by the examining bodies without favour or distinction "when they had complied with the same conditions." The licensing bodies do impose exactly the same conditions on all would-be candidates. But "the complete School of Medicine for Women" in London is incomplete in this very important point,—that it is still unable to provide its students with hospital practice. Mrs. Garrett-Anderson, who spoke, as she always does, with marked moderation and common sense, observed that a further difficulty in the way of medical women is the fact that "several of the examining bodies seem to doubt if they have the power to examine women"; and she remarked that an authoritative declaration of that power might be sufficient to solve the difficulty. Very well; either let Government take up the whole matter, or let the advocates for medical women try the question of their right to be admitted to examination. Mr. Stansfeld says "it would be quite out of the question to expect individual women to incur the expense of such legal proceedings"; but if there is, as is said, a great cry for women to attend women, it ought to be the easiest thing possible to raise sufficient funds to apply for a *mandamus* to some English licensing body to admit women to examination.

THE DISCUSSION ON SYPHILIS AT THE PATHOLOGICAL SOCIETY.

The discussion on syphilis hardly sustained the same high character it did on the former occasion, though the speeches were good and decidedly above the average. Dr. Broadbent led off, and unfortunately made a speech otherwise interesting rather too long. This chiefly arose from re-quoting Mr. Hutchinson, and might readily have been avoided. Moreover, this was to be regretted, inasmuch as Dr. Broadbent had something really good to say on a subject he hardly touched—viz., syphilitic affections of the nervous system. He began by showing how well syphilis illustrated the gradual invasion of the system by a poison. He had seen in syphilitic children gummata of the tongue, skin, and palate. Moreover, though Mr. Hutchinson said that these children were not specially liable to disease when they grew up, yet, as it was rare to meet with a middle-aged person presenting the marks of congenital syphilis, they must disappear somehow. He thought that granular kidney was one of the means of carrying them off. Others, again, perished from amyloid disease; and he had had one case of aneurism of the aorta apparently due to congenital syphilis.

As regarded the comparison of syphilis with specific fevers, one of the most marked of these—viz., ague—was completely excluded. Syphilis ran no definite course and had no definite duration like these fevers. The stage of tertiaries was notoriously irregular; and it was probably for this reason that these were spoken of by Mr. Hutchinson as sequelæ. Tertiaries, moreover, were quite specific in their characters, which other sequelæ were not—the buboes of typhus and the inflamed kidneys of scarlatina, which were, however, as a rule, symmetrical. He considered the clinical history of secondaries and tertiaries to be totally unlike, and that when secondaries were slight, tertiaries were apt to be most severe. He would also suggest the query, Is infantile syphilis so severe and dangerous because it is inherited, or on account of the tender age of the patient? He thought it quite possible for a woman to be infected by a fœtus, and only to develope tertiaries. Finally, he thought that since syphilis in certain of its stages was so amenable to treatment, it might probably turn out that other fevers were so likewise.

Dr. Buzzard said it had long been supposed that syphilitic affections of nerves were due to changes in the bones they passed through. But it was now known that bloodvessels and other tissues could be affected, and that the nerve lesions were often due to these. Out of 100 cases of syphilitic nerve affection he had examined, he had been able to make out the date of infection in eighty-three, and of these fifty-six occurred after five years, and twenty-seven under that period. This, he thought, was a large proportion for the first years, and some of them occurred quite early, even cases of hemiplegia, paraplegia, and convulsive disease being among the number. In some of the earlier cases there had been faintness and other symptoms arising from irritation of the vaso-motor system, and

in some there had been mental symptoms. He also thought that recent researches tended to show that syphilis, in all probability, spreads by the lymph-paths, and in the brain affects these before affecting the vessels.

Sir W. Jenner, who was present, being called on, modestly declined to speak, on the ground that he had nothing particular to say. Would there were more like him! But on being urged, both by the President and the applause of the meeting, made a few shrewd and highly useful observations. Much had been said of the symmetry of eruptions in fevers; he thought the reverse was the case—markedly so in typhoid fever. Again, it had been said that these acute infectious diseases were not followed by distinct sequelæ. He called to their minds diphtheria; this was followed by unmistakable nervous lesions, loss of vision, difficulty in swallowing, and failure of the legs. Congenital syphilis was more than a blood disease; both the sperm and germ were from the first affected, and every tissue of the resulting body was impregnated with syphilis. This mainly took the shape of potentialities of development. Even the hair, whiskers, and colour of the eyes were thus foreshadowed; but this was not dependent on blood.

Dr. Moxon followed in an immensely amusing speech. One might have taken it as an extract from Alice's Adventures, not in Wonder-land, but in Syphilis-land, had it not been for the language in which it was couched, and the shrewd and biting, though not unkindly, humour which lay under it. He had made fifty-six autopsies in syphilitic subjects, and among these the earliest death was at thirty-seven. He was inclined to think that the future was short for those in whom visceral syphilis made its appearance. He had, as a rule, treated these cases with iodide of potassium, but he had been much impressed with what Paget had said—viz., that mercury was sometimes necessary for a cure, though the iodide might relieve for a while. This, he thought, had a bearing on the unity of secondaries and tertiaries.

As regarded the symmetry of the eruptions, if the body was all plastered over with eruption, and as there were only two sides to the body, the eruption was bound to be more or less symmetrical; but if there were only two or three spots, the chances of symmetry were much less. Iritis, keratitis, etc., were said to be symmetrical: quite true, but there were only two eyes in the body. Were the body all an eye, very likely there would be universal keratitis. The liver might be all affected; but there was only one liver. When Sir James Paget spoke of want of symmetry in the sequelæ of fevers he cited the instance of inflammation of the periosteal covering of one rib; but one could never make symmetry,—that required two at least. But he held that syphilis in its advanced stages was really very symmetrical, and in support of this cited certain cases under the care of a colleague, and especially one where a syphilitic deposit was found on the roots of both vagi. Syphilis was not a blood disease: true, in certain cases blood might infect as in vaccination; but this was no more than saying that, as a physician might sometimes be caught in a railway train, a monopoly in physic remained with the railway companies.

All febrile disorders whilst attacking a virgin soil raged with extraordinary violence; witness the effects of small-pox on Indian tribes. Thus, in a female thoroughly impregnated with syphilis, should a fœtus become developed in her, this was so much new material to be acted upon. It had been said that when abortion occurred in these cases the placenta was only fatty; but the placenta could not have keratitis, iritis, etc.,—there was only fatty degeneration left for it. As regarded tertiaries, he thought of the structure of bone and the Haversian interspaces: might there not be a similar kind of structure elsewhere? and might not the new material thus laid down become subject to the attacks of the poison? Jokes at second hand are seldom good, and we forbear from attempting to reproduce Dr. Moxon's. At all events, they were sufficient to put the house in thoroughly good humour both with itself and the speaker.

No one was found bold enough to propose an adjournment of the debate; nevertheless, we hear that there are several who still desire to air their eloquence or pathological knowledge. We forbear from mentioning names; but really, if the speeches of those gentlemen could be taken as delivered, and at once handed over to the custody of the secretaries, it might be well. If not too long, they might be printed in the *Transactions*, and the ground would be clear to Mr. Hutchinson to reply. Further discussion would be wearisome, and it is high time the Society returned to its normal avocation of mentally devouring plates of pickles.

THE ROYAL VISIT TO THE LONDON HOSPITAL.

On Tuesday last the Queen fulfilled her gracious intention of opening the new wing of the London Hospital. Her Majesty was favoured with the sort of weather which is now popularly known as "Queen's weather," and, as a natural consequence, the streets were crowded with eager sightseers. From Buckingham Palace to the London Hospital the whole route was lined by thousands of persons, the crowds becoming denser and denser as the vicinity of the new building was reached; and the authorities are unanimous in asserting that a more orderly gathering it was never their good fortune to have to control. Indeed, the feeling of satisfaction and delight with which the visit of her Majesty to the East-end of her capital was looked forward to by the dwellers in that locality culminated in a variety of mottoes and devices exhibited outside the houses, which, if not exactly couched in the language of the Court, bore a heartiness and genuine ring about them which obtained the direct commendation of the Royal personage in whose honour they were composed: "Welcome, England's Pride, Queen Victoria"; "A Humane Queen makes a Loving People"; "The quality of Mercy is mightiest in the Mightiest, and becomes a Monarch better than her Crown"; "Welcome Victoria, Friend of the Afflicted." These, and numerous other legends equally loyal and complimentary, decorated the house-fronts in Whitechapel.

On arriving at the Hospital, her Majesty was received by the President, the Duke of Cambridge, and the Vice-Presidents, represented by Mr. Coope, M.P., and Mr. Osgood Hanbury. A procession was then formed, which included the Chairman of the House-Committee (Mr. E. H. Currie); W. J. Nixon, Esq., the House-Governor; Dr. A. Clark, the Senior Physician; J. Hutchinson, Esq., the Senior Surgeon; a deputation from the Grocers' Company; the principal authorities of the City; the Lord Mayor; the Archbishop of Canterbury; the Bishop of London, and many others. The Queen then passed through two of the new wards of the Grocers' Company's Wing, one of which was in a complete state of fitness to receive patients: this her Majesty was pleased to name "The Queen Victoria"; the other, as yet unfurnished, received from her Majesty the title of "The Princess Beatrice." The most interesting feature in these wards was the appearance of the Hospital nurses, who lined the Royal pathway on either hand.

No halt was made in the new wards, but the procession moved on to the daïs of the marquee, or pavilion, wherein 2000 persons were assembled, and here the real ceremony of the day took place. The Queen was received with the National Anthem, the company rising as she entered. An anthem was then sung, and the Duke of Cambridge, as President of the Hospital, handed an address to her Majesty, without reading it, receiving from the Royal hands a reply, also not read. This interchange occupied scarcely a minute, and at its conclusion the Duke presented to her Majesty E. H. Currie, Esq., the

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Deputy Chairman; the Rev. T. J. Rowsell, M.A.; and the Treasurer, T. F. Buxton, Esq.; each of whom had the honour of kissing hands. The following gentlemen were also presented:—The Vice-Presidents, O. E. Coope, Esq., M.P., and O. Hanbury, Esq.; the Senior Physician, Dr. Andrew Clark; the Senior Surgeon, J. Hutchinson, Esq.; the House-Governor, W. J. Nixon, Esq.; the architect, C. Barry, Esq.; and the representatives of the Grocers' Company. The Bishop of London next offered a prayer, and a hymn was sung, at the conclusion of which the Home Secretary, by command of her Majesty, declared the new wing opened; the Archbishop of Canterbury pronounced the Benediction, and the formal portion of the proceedings terminated.

Before leaving the Hospital the Queen visited the Accident Wards, made as picturesque as circumstances would permit by the happy device of wrapping all the patients in scarlet shawls, and many a gracious and sympathising word was addressed by the Royal visitor to the patients on the way. Her Majesty then expressed a wish to see the Children's Ward, and diffused much happiness amongst the unfortunate little sufferers by the motherly way in which she caressed more than one of the tiny patients gazing at her with eagerness and astonishment.

The whole of the arrangements were excellently carried out, and her Majesty was pleased to convey her satisfaction to the Hospital authorities. We hear that, in token of her appreciation of what has been done to enlarge the resources of the Hospital, the Queen has been pleased to forward a special donation of 500 guineas in aid of the expenses.

THE WEEK.

TOPICS OF THE DAY.

The dissemination of typhoid fever through the medium of the dairyman is becoming much more frequent, or is more frequently found out in the present day. Attention has recently been called to the extensive and fatal outbreak of this disease at Eagley, and we now learn that, at a meeting of the Burnley Town Council, held last week, a letter was read from the Medical Officer of Health, reporting an outbreak of typhoid fever in that town. Already there had been twenty-six cases treated, of which number six had proved fatal. It is noteworthy, also, that eighteen of the cases are stated to have occurred in the highest and most select district of the borough; and in all the cases, or all except one, the families are supplied with milk from the same dairy. The Medical Officer further asserts that the town is furnished with an abundance of good water. Should it be clearly proved that in this outbreak, also, the milk has been the article of infection, it will afford an additional proof of the urgent need for legislation to step in for the protection of the public, by appointing medical inspectors to supervise all dairies and dairy farms.

Only last week we noticed some preliminary steps which had been taken in the parish of St. Marylebone, for obtaining the erection of a post-mortem-house, and other necessary buildings attached, on the long since disused Paddington-street burial-ground. On the occasion of a recent inquest held before Dr. Hardwicke, the necessity of providing such accommodation was forcibly illustrated. A woman, aged sixty-one, lived with her husband and two daughters in a miserable kitchen in Park-place, Dorset-square. She was taken suddenly ill at dinner-time on the 27th ult., and Dr. Norman Kerr, of Grove-road, was summoned to attend her: on his arrival she was found to be dead. Dr. Kerr stated that on receiving an order for a post-mortem, he went to the house to execute it. The place in which these people lived (and there was another woman in the next kitchen with two children) was wholly unfit for human habitation, and the ventilation was very defective. The immediate cause of death was fainting, accelerated, no doubt, by the improper atmosphere in which she lived. The dead body was kept in the room with the family, and after "waking" the corpse, the family slept, and took their food beside it. There was no post-mortem-house nearer than the stone-yard, and that was so far off that medical men declined to go to it. The Coroner explained that the Guardians had refused to allow post-mortems at the workhouse, except on bodies found in the streets. The jury, in returning a verdict of "Natural death," desired that the attention of the Vestry might be directed to the danger to health which must result from the want of proper post-mortem-houses, and the immediate necessity which existed for the establishment of one in the centre of the district.

It is somewhat singular to note, from every fresh return compiled, that the use of tobacco is fast increasing in this country, even when due allowance is made for increase of population. A recent report of the Inland Revenue Commissioners shows that, in the year 1841, 23,096,281 lbs. weight was cleared in the United Kingdom, giving $13\frac{3}{4}$ oz. per head of the population; whilst in the year 1874 the weight cleared was 46,991,590 lbs., being at the rate of 1 lb. 7 oz. per head.

The authorities of St. Bartholomew's Hospital have been fortunate in detecting what appears to have been a systematic series of robberies from their kitchens, which have apparently been carried on for some time. The cook and assistant-cook, man and wife, who have been in the service of the Hospital for nineteen years, are in custody, together with the kitchen-maid (who, at the second hearing, was discharged, and made a witness), and a man for receiving the food stolen. Large quantities of provisions are stated to have been sent out of the Hospital; and the magistrate before whom the prisoners were brought, in remanding them, remarked that he would not be justified in accepting bail.

With sanitary science in its present advanced stage, it is a little surprising to read the following statement of what would appear to have been a blunder on the part of some one who should have known better. Some years ago, on the Epping Local Sanitary Authority refusing to provide a new system of drainage and water-supply, the Local Government Board stepped in and did the work, expending upon it the sum of £11,900. It turned out a failure, however, the supply of water obtained being very limited, while some of the sewers were admittedly constructed in such positions that it would be very costly to connect the houses with them. Under these circumstances the Local Authority refused to take the works over, and eventually the Local Government Board called in Sir Joseph Bazalgette, C.E., to report upon them. He has just done so, and, on his recommendation, the Local Government Board have offered the works to the ratepayers for £5000, being one-fourth the cost of the waterworks and two-thirds the cost of the sewerage works. A meeting called to consider this offer has been adjourned for a fortnight.

Our late war with the King of Ashantee would seem at least to have opened up the country as far as the capital of that monarch. Recent despatches received from the Gold Coast announce that Dr. Gouldsbury is at Coomassie, whither he has gone to receive an instalment of the indemnity to be paid by the King on account of the war. Dr. Gouldsbury appears to be making a stay at Coomassie, and it is worthy of note that both he and Dr. Rowe have played conspicuous parts in the proceedings which followed our short but decisive campaign on the West Coast of Africa.

At the annual meeting of the Bolton Infirmary and Dispensary Committee, last week—the Rev. Canon Powell, vicar, in the chair,—it was announced that the firm of Messrs. J. Musgrave and Sons, engineers and cotton-spinners, and a gentleman whose name was not divulged, had each offered to

contribute the sum of £5000 towards the erection of a new infirmary. The latter donation was made conditional upon a ward being provided for sick children. The Committee of the institution were requested forthwith to adopt measures for the erection of the new infirmary.

With a calm consistency worthy of a better cause, Mr. Robert Milner, chairman of the Keighley Board of Guardians, appeared on Friday last before the bench of magistrates to answer a charge of neglecting to have his daughter, fourteen years of age, vaccinated. The case having been proved, the defendant expressed his regret that he was unable to comply with the law, and urged that, as vaccination was often injurious, it would be sinful for him to subject his children to it. He was determined, in fact, never to have his children vaccinated. The magistrates made an order for vaccination to be performed within ten days, failing which, defendant will be again summoned. From the official position which Mr. Milner holds in the town, the ultimate decision of the magistrates (in the event of the order not being complied with) will be looked for with some interest, as it would seem to be somewhat of an anomaly to retain a gentleman in an office which calls upon him to enforce the carrying out of a law which he himself is the first to disobey.

We have received the first number of a new publication, the *Sanitary Journal for Scotland*. It is published in Glasgow, and, to judge from the sample before us, bids fair to be a very useful addition to the monthly literature of the country. From an editorial notice we learn that an original paper, by Dr. B. W. Richardson, "On the Relationships of the Physical and Moral Contagions of Diseases," which had been promised for the opening number, had not arrived in time, and may therefore be expected on a future occasion.

The scheme for the future management of the prison charities, recently presented by the General Purposes Committee of the Common Council, has now been made public. The matter would seem to have been under consideration since the year 1852; it is, therefore, a subject of congratulation to find that after twenty-four years a decision has at length been arrived at. We believe that it is now definitely settled to appropriate some of the funds for the relief of poor convalescent persons requiring the aid of strengthening air and diet; and this is to be effected by applying the income either in making grants, donations, or subscriptions for the benefit of any existing hospitals or institutions for the reception and relief of poor convalescent persons; or the trustees may, with the sanction of the Charity Commissioners, themselves provide one or more cottage homes or hospitals for the support and treatment of convalescent persons.

We some time ago advocated the appointment of a medical department for the Board of Trade; and, from the frequent occurrence of scurvy lately reported in sea-going vessels, it would appear that some official medical supervision is absolutely necessary. The iron barque *William Wilson*, Captain Dalrymple, with guano from Mexillanos, near Valparaiso, 131 days out from Liverpool, arrived a few days ago in Penarth roads, with eight of her crew down with scurvy. The captain and three officers were the only persons on board able to work the vessel. The men state that they have been ill for the last two months, and that during the last three days of the voyage the lime-juice and provisions were exhausted. The crew were landed, and taken to the hospital-ship. They are said to be very much emaciated, and the recovery of some of them appears doubtful.

A few weeks ago we reported an inquest on the body of a child who died from an overdose of "Atkinson and Barker's Infants' Preservative." In another column we publish a letter from a provincial correspondent, who states that the registrar of births in that town gives to mothers, at the time of registration of the births of their infants, circulars respecting the alleged virtues of this nostrum. That registration officers should be so injudicious as to undertake the duties of advertising agent to vendors of quack medicines—medicines which have been proved to be dangerous to life—is almost incredible. The practice cannot be too strongly condemned, and we have no doubt that as soon as the Registrar-General is aware of the use that is being made of his subordinates he will issue instructions requesting them to confine their attentions more strictly to the legitimate duties of their office.

At the *levée*, on Monday last, the following members of the medical profession were presented to her Majesty, viz.:—Surgeon C. E. Harrison (Grenadier Guards); Surgeon F. B. Scott, M.D. (18th Hussars); Staff Surgeon W. H. Lloyd, R.N.; and Dr. E. G. Purcell (3rd Middlesex Artillery Volunteers). Among those present at the *levée* were Sir Rutherford Alcock; Sir James Paget; Sir Thomas Watson; Dr. Acland; Dr. William Brewer; Dr. Langdon Down; Dr. Ralph Gooding; Dr. G. Vivian Poore; Dr. Rae; Dr. Reginald Read; Dr. Frederick G. Reed, M.P.; Dr. Protheroe Smith; Dr. L. Forbes Winslow; Mr. Oscar Clayton; Mr. Alfred Cooper; Mr. Cæsar Hawkins; Surgeon-Major C. B. Mosse, C.B.; Surgeon-General George Saunders; Mr. Spencer Wells; Mr. Erasmus Wilson; Mr. Bird; Mr. Brady; and Mr. Du Pasquier.

We are glad to be able to state that not a single case of accident was admitted into the London Hospital on the occasion of the Queen's visit to that institution. The crowds on such occasions are mainly stationary, and thus are comparatively harmless. It is when they are put in motion that accidents are so apt to occur, and this especially when two vast moving bodies of men and women come in collision. Those who remember the illuminations when the Princess of Wales came to this country will also remember the number of accidents which then occurred. Still more is this the case when, from whatever cause, a panic arises.

Intelligence has been received from Bombay, announcing the appearance of the plague on the banks of the Euphrates.

INSPECTION OF DAIRY FARMS.

We have received the following from a country correspondent. It illustrates a very important matter, to which we have more than once lately called attention:—"I wish to add my humble voice to the urgent demand which has been made for some measure insuring sanitary supervision of dairy farms. Those only whose business brings them into frequent contact with the occupiers of such farms can form any conception of the utter disregard of sanitary precautions, and, I am sorry to be compelled to add, of the ordinary principles of cleanliness, that exist in too many instances. In advocating the necessity of sanitary supervision of dairy farms, the principal stress has been laid on the danger of pollution to milk. Butter is equally open to this danger. It may be replied that what affects the milk must, of course, influence the butter. Granted this. But the possible pollution of butter has a very wide significance, I think. The farms supplying milk to the markets must be few compared with the number which supply butter. Nearly all the produce of dairy farms situated in outlying agricultural counties is turned into butter; and nothing, in my experience, more strongly demands sanitary supervision than the state of such farms, particularly that of the small cottage farms. The small cottage farmer looks to the cask of butter, which generally takes some weeks to fill, as a staple part of his business, and it is as important as the 'gintleman that pays the rint.' The butter has to be made and stored in places that, in too many instances, are utterly wanting in all regard for decency and cleanliness. The following instance will, I think, show that the picture is not overdrawn:—I was requested to visit a

woman residing some miles distant on the uplands. On reaching the cottage, the woman was found in bed, all muffled up with dirty, filthy rags. The only way to approach her was over another bed, upon which I had to stand while making such an examination as I dared. On calling for a light, a candle stuck in the mouth of an ink-jar was after some searching produced—such a thing as a candlestick not being included among the 'household gods.' The cottage was composed of one room, with the mere semblance of a division. The woman was suffering from a low form of pneumonia, which, from the history, I strongly suspected was the sequela of something having a strong kindred to 'filth fever.' The whole of the surroundings were of such squalor, filth, and poverty that I suggested application to the parochial authorities. 'What for?' the patient exclaimed; 'I don't want anything; I have money, and can pay.' On making further inquiry as to her means, it was found that she lived on and farmed a few acres of land, sufficient to keep five or six cows, while her husband worked in a neighbouring county. There appeared to be no means for the protection of the milk; and, in the midst of all this filth, butter week after week was made, stored, and eventually sent to the market! The very idea of eating butter produced with such surroundings is nauseating, and enough to make one forswear it altogether. Still, from a considerable experience, I can confidently say that the above is a description of what is in existence in a great many cottages. In the face of such nauseous facts it is not too much to ask that the production of milk and butter should be surrounded with ordinary sanitary precautions. We have the machinery for such inspection ready to hand. Let the Legislature, then, empower our sanitary authorities to order inspection of all dairy farms (large and small), and grant a certificate to those whose premises are found in proper order. The withholding of such certificate from others would be a strong inducement to them to 'set their houses in order,' as it would affect them through a powerful channel—viz., their pockets."

HEALTH OF THE PORT OF LONDON.

The Medical Officer of Health for the Port of London, in his report for the half-year ended December 31 last, states that, in defiance of written requests and warnings, a great many closet and other objectionable outfalls into the river, within the jurisdiction of the Port Sanitary Committee, still exist. There is a long row of such openings at Brentford, and some few between Brentford and Vauxhall, and although many have been closed below the bridges, there are at least thirty of these closet outfalls still in active operation between London-bridge and Blackwall, to the great annoyance of those who live or do business on the river. There may be some excuse for those situated outside the metropolitan drainage system, which ends above at Chiswick and below at Barking, but there can be no possible reason, in the vast majority of cases, why those within these limits should continue to pollute the Thames in this offensive manner. The same kind of nuisance exists in the Roding at Barking Creek, which receives nearly all the sewage of the town of Barking, thereby fouling the stream, and often causing during the summer months an intolerable odour. The manure, glue, and other manufactories on the banks of the river between Woolwich and Greenhithe still cause nuisances at frequent intervals, and, although not in the district of the Committee, might be proceeded against were it considered advisable to do so. No examination of ships has been made at Gravesend, at the request of her Majesty's Customs, inasmuch as epidemic cholera has not existed in Europe during the past half-year. Dr. Leach has also made it his duty to inquire particularly into the internal economy of training-ships on the Thames. He has visited ten out of a total of fifteen of these ships on the Thames and elsewhere, and he makes a variety of suggestions with regard to their sanitary arrangements. There are at the present time five school-ships of various classes moored in the Thames, and before many months have passed, two, if not three, more will be added to their number. Of the five ships, the *Clio* (late *Warspite*) is moored off Charlton, and may be considered as sufficiently provided with hospital accommodation, as the Seamen's Hospital is within two miles and a half by water. The remainder all lie within four miles of each other, but, with the exception of the late *Goliath*, have no hospital accommodation, and none that is available on shore for many miles round. Any vessel added to this fleet of school-ships would be moored within the same limits. For reasons of convenience as well as economy, a combination of all these school-ship authorities should be made as regards hospital purposes, and a place of reception for the sick should be kept up, either ashore or afloat, to which all would contribute, and which would be used by all in common as occasion might require.

THE MEDICAL DEFENCE ASSOCIATION AND THE APOTHECARIES' SOCIETY.

On Tuesday last a deputation from the Medical Defence Association—consisting of Mr. Spencer Watson, one of the Vice-Presidents; Mr. F. G. Aubin, member of the Council; Mr. George Brown, Hon. Secretary of the Association; and Dr. R. H. S. Carpenter, Hon. Secretary of the East London Branch Association—waited on the Master and Wardens of the Apothecaries' Society, to endeavour to induce them to forego their claim to the penalties recovered from unqualified practitioners in prosecutions instituted by the Association under the Apothecaries Act. The East London Branch Association has recovered four penalties of £20 each from persons illegally practising medicine in the East-end of London, and the Society of Apothecaries claim half the penalties in each instance, although the entire costs of the prosecution have been borne by the Association. The deputation was received most courteously, and the Court listened with great attention to the arguments advanced on behalf of the Association, and the grounds on which its claim to the whole of the penalties recovered are based. The Court declined to give a decided answer, but suggested that a memorial, embodying the views of the Association, should be drawn up and presented to the Court, when a formal reply would be given. We understand that one-half of the penalties recovered would not meet the legal expenses incurred in conducting the prosecutions. It is scarcely fair for the Apothecaries' Society to claim such a large proportion of the penalties, whilst the members of the Association have the luxury of paying the lawyers' bills.

THE LATE DR. WARBURTON BEGBIE.

Our Edinburgh correspondent tells us that the remains of the late Dr. James Warburton Begbie were interred in the Dean Cemetery on the afternoon of Wednesday, March 1.

It was the wish of Dr. Begbie that his funeral should be strictly private; and only the relations and intimate friends of the family were invited to attend the funeral. A large number of the members of the medical profession and others, however, assembled at the hour appointed, to follow to the grave all that remained of one who was universally loved and esteemed while he lived, and whose death has cast a gloom over the whole city. Along the whole line of the mournful procession the window-blinds of the houses were drawn, and many a sad face and tearful eye testified how widely and deeply the loss of this great and good physician was felt.

Very touching, and indicative of a widespread feeling, was the following incident, which occurred when the body was about to be lowered into the grave:—A poor but respectable-looking old woman, with expressions of deepest gratitude for many kindnesses received at the hands of the departed,

stepped forward and placed beside the wreaths previously laid on the coffin by the members of the family, a bouquet of the choicest flowers.

We very willingly publish, at the request of the Committee of the British Medical Benevolent Fund, the following letter, to one of their honorary secretaries, from the late Dr. Warburton Begbie. It is remarkably characteristic of the lamented writer, illustrating as it does not only his large-hearted generosity and benevolence, but also his well-known knowledge of, and love for, the Hippocratic teachings:—

"Edinburgh, December 23, 1875.

"My dear Sir,—I appreciate very highly the courtesy you have exhibited in your kind note of the 16th regarding the selection of annuitants under the 'Special Fund' of the British Medical Benevolent Fund.

"Living, as I do, remote from the actual sphere of your operations, and having the utmost confidence in the Committee who manage the Fund, I prefer not to avail myself of the opportunity you have kindly given me.

"A few weeks ago my annual contribution was paid to our excellent local secretary, Dr. Joseph Bell, but the approach of Christmas now leads me to send you a donation of one hundred guineas to the Special Annuitant Fund.

"So long as life and health are given me, I mean, keeping in mind the real community of our professional interest, so strikingly set forth in the oath ΟΡΚΟΣ of Hippocrates, to act in this way.

"I do not know any better way of benefiting the families of medical men than by subscribing, as liberally as Providence allows, to the noble Fund for which you act.

"Believe me, with best Christmas wishes,

"My dear Sir, yours very sincerely,

"J. W. Begbie."

LABOURERS' DWELLINGS IN DEVONSHIRE.

In his annual report, Dr. L. Ash, Medical Officer of Health for the Holsworthy District, directs attention to the condition of the labourers' dwellings in the parishes comprising his district. Many of the cottages, he states, are literally hovels, which most gentlemen would consider unfit for the stabling of cattle. In one case recently reported there was only one sleeping apartment in the cottage, and in this room a man, wife, and six children were huddled night after night. The neighbourhood suffered under the disadvantage of the largest land proprietors being non-resident; but if the facts were brought to their knowledge they would probably be compelled, for very shame at least, to provide structures in which the decencies of life might be observed.

THE WATER-SUPPLY OF HASTINGS.

The local mind is still much exercised respecting the water-supply of Hastings and St. Leonard's, and a controversy is being carried on in the local newspapers, but nothing new has been added to that which has already appeared in these columns. The Town Council have all the facts before them, and it is for them to adopt such measures as they may think most practicable for insuring a better service of pure water.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

The following rules and regulations respecting female candidates for examination for a licence to practise as midwives and nursetenders, have been adopted:—Qualifications—Age, not less than twenty-one years; certificates of character. Preliminary Examination—Reading, writing, and arithmetic. Course of instruction—Six months' attendance on systematic lectures on midwifery, and not less than six months' attendance on bedside instruction in a lying-in hospital or maternity recognised by the College.

PARLIAMENTARY.—PUBLIC ANALYSTS.—SCURVY ON BOARD SHIP.

In the House of Commons, on Friday, March 3,

Mr. Sclater-Booth, replying to Mr. Watkin Williams's inquiry respecting the neglect of local authorities to appoint public analysts, said that thirty-four analysts had been appointed to forty-two boroughs. He was not aware that no practical results had followed owing to the absence of any provision for the payment of a salary to the analyst. No doubt practical results had not followed in all cases, but that was owing to the impossibility of employing the police before the Sale of Food and Drugs Act of last session; and that was now remedied. If a case of necessity were made out, he would be willing to employ the powers of compulsory appointment vested in the Local Government Board, but he had no information before him which led him to think the time had arrived for the exercise of those powers. He was not in a position to recommend any uniform system of remuneration.

On Monday, March 6,

Sir C. Adderley, in reply to Mr. Ward's inquiry with reference to the reported arrival of two vessels with bad scurvy on board, said that several pronounced cases of scurvy had occurred on board of two vessels, one at Queenstown and the other in London. Inquiry has already been ordered in each case to be held by the medical officers of the Board. Reports will be laid on the table in due course, with other papers already promised.

THE REPORT OF THE ROYAL COMMISSION ON THE PRACTICE OF SUBJECTING LIVE ANIMALS TO EXPERIMENTS FOR SCIENTIFIC PURPOSES.

The full Report and voluminous evidence taken before the Commission have now been issued. It is impossible to refuse assent to the Report itself, which has been framed with most conscientious and most scrupulous care. It cannot fail to have a quieting influence on the public mind, were it only from the authority of those composing it. These were, we may remind our readers, Lords Cardwell and Winmarleigh, Mr. W. E. Forster, Sir John Karslake, Professor Huxley, Mr. Erichsen, and Mr. Hutton. To people with whom it is possible to reason, the arguments in favour of making use of such experiments advanced in the Report are perfectly convincing. Whilst in their conclusions as to the necessity of some guarantee for the future conduct of such experiments, physiologists will be fain to concur, if only for the sake of peace. The following are the conclusions arrived at by the Commission:—

"Our conclusion is that it is impossible altogether to prevent the practice of making experiments upon living animals for the attainment of knowledge applicable to the mitigation of human suffering or the prolongation of human life; that the attempt to do so could only be followed by the evasion of the law or the flight of medical and physiological students from the United Kingdom to foreign schools and laboratories, and would, therefore, certainly result in no change favourable to the animals; that absolute prevention, even if it were possible, would not be reasonable; that the greatest mitigations of human suffering have been in part derived from such experiments; that by the use of anæsthetics in humane and skilful hands the pain which would otherwise be inflicted may, in the great majority of cases, be altogether prevented, and in the remaining cases greatly mitigated; that the infliction of severe and protracted agony is in any case to be avoided; that the abuse of the practice by inhuman or unskilful persons—in short, the infliction upon animals of any unnecessary pain—is justly abhorrent to the moral sense of your Majesty's subjects generally, not least so of the most distinguished physiologists and the most eminent surgeons and physicians; and that the support of these eminent persons, as well as of the general public, may be confidently expected for any reasonable measures intended to prevent abuse."

(*To be continued.*)

To the Charitable.—Vigilance in the protection of charitable donors against imposture and fraud is certainly exerted by the Charity Organisation Society. We are pleased to observe that the Council has resolved to adopt means of warning the public in respect to those charities which it has been ascertained are unworthy of public support.

FROM ABROAD.

The Antiseptic Treatment in Incision of Hydrocele.

Professor Volkmann, of Halle, observes (*Berlin Klin. Woch.*, January 17) that there is scarcely any other operative procedure that is so likely to convince an observer of the efficacy of the antiseptic treatment as that of incision for hydrocele. Those whose former experience had taught them how frequently severe reaction followed this operation, and how seldom recovery occurred without tedious suppuration and the occurrence of various interruptions, now find that the healing process takes place with the greatest simplicity and remarkable rapidity. Healing by the first intention occurs over the greater part of the surface of the wound, and without a trace of local reaction, the patient being able to leave his bed and walk about in five or six days, his discharge from the hospital taking place during the second week. Prof. Volkmann has employed this procedure in seventeen cases with undeviating good results, so that he is able to recommend its adoption. Both during and after the operation all the rules of the antiseptic method must be rigorously enforced. The vicinity of the genitals is to be most carefully and repeatedly cleansed with a solution of carbolic acid, and the hair of the pubes and around the anus are to be shaved off. After the incision has been carried from the ring to the base of the scrotum, the cavity of the tunica vaginalis is to be repeatedly washed out with a 3 per cent. carbolic acid solution, and the edges of the wound brought closely together during the continuance of the spray by means of fifteen, twenty, or even more sutures, made of the finest silk used double. Bleeding vessels, even of small calibre, should first be secured by the catgut ligature. The object in view with the antiseptic dressing is to bring the distended tunica vaginalis as closely in contact with the testis as possible, and the doing this is much aided by exciting contraction of the dartos by the repeated application of cold carbolic acid solution. When the sac is very large and relaxed, or when there is great fibrous induration or sclerosis, it may become exceptionally necessary to excise a portion of the tunica vaginalis. This must not be carried too far, and great trust must be placed in the method. The total adhesion of the sac, even when it lies in folds, is usually easily brought about. In those cases in which the surface of the tunica vaginalis becomes greatly diminished by the contraction of the scrotum, no drainage-tube is required; but in others, in which there is found a long funnel-shaped reduplication of the tunica, a drainage-tube should be introduced perpendicularly to the surface of the testis. Lister's dressing is most carefully applied so as to secure the hermetic closure of the wound. In his first cases, Prof. Volkmann did not venture to apply sufficiently firm pressure, and there was a secretion produced, which necessitated the early reapplication of the bandages. In his later cases these have been kept on for two, three, or four days, and sometimes even longer still. Even after the second or third dressing the obliteration and adhesion may be so complete that the Lister dressing need not be continued, and a suspensory containing several layers of salicyliated wadding may be substituted.

Prof. Volkmann furnishes abstracts of the chief particulars of his seventeen cases, and states that in no one of them did he meet with any local reaction whatever. There was neither phelgmon of the scrotum, nor deposits of pus, nor even acute œdema or swelling of any kind of the scrotum. What these facts signify can only be appreciated by those whose former experience has taught them what takes place when this treatment of hydrocele is pursued with access to the air, and when there is violent local and general reaction, almost without exception the patient being confined to his bed for from six to eight weeks. Numerous cases of this kind had been observed in the clinics of Blasius, Langenbeck, and Simon. Of fifteen of the seventeen cases now reported, in which exact observations of the temperature were made, in six fever was entirely absent during their whole course, in three there was a single elevation of temperature on the evening after the operation, in four a moderate elevation (not exceeding 39·6° C.) lasted from two to six days, and in two the temperature rose to 40° and 40·5°, these two being the first cases so treated when the procedure was less perfectly carried out. The mean duration of the treatment was ten days, and in the later cases it frequently lasted but eight days; and on the fifth or sixth day most of the patients were able to leave their beds. In sixteen out of the seventeen cases the entire obliteration of the cavity was found to have been secured on the first renewal of the dressing, not a drop of fluid being able to be pressed out from between the tunica and the testis. In only one case, a drainage-tube was found to be required for a few days longer, when a small portion which had not united was found to have become consolidated, this patient being, in fact, cured as quickly as the others. This later consolidation, observed likewise after opening abscesses, is quite characteristic of the antiseptic procedure. It is also remarkable that this rapid plastic union of the tunica with the testis took place even when it was densely thickened and sclerotic, a slight degree of calcification not having prevented it in one case. The same result was obtained in two cases of hæmatocele. But in the worst cases it will be better to excise a portion of the tunica or remove some of the firmer coagula. The most remarkable case was one in which two deposits were scooped out from the centre of the testis itself, the recovery taking place just as in the other cases, the patient leaving on the eleventh day with a smooth granulating wound. In the only case in which total primary obliteration of the cavity was not obtained with the same certainty as in the others, the incision was not prolonged from the upper to the lower part of the scrotum; and although recovery took place rapidly, yet the radical character of the cure is not certain.

The Paris Faculty of Medicine.

The mode in which the two vacant Professorships have been filled up has caused much surprise and dissatisfaction. The vacancies were caused by the retirement of the veteran Prof. Bouillaud and the death of Prof. Lorain, leaving thus open one of the chairs of Clinical Medicine and that of the History of Medicine. To the former Prof. Hardy has been transferred from his chair of Internal Pathology, by what is called "permutation" of chairs, which, although constantly decried as very injurious to the interests of the Faculty in its operation, is always put into force when such a prize as a clinical chair is the result of the change. Prof. Hardy having thus been transferred, for his chair of Internal Pathology three candidates—viz., MM. Jaccoud, Peter, and Potain—were nominated. The first of these *agrégés* has already established for himself a European reputation; while M. Peter, who has figured brilliantly at the *concours* and is an eloquent teacher, was thought to be a formidable rival. To the surprise of everyone, M. Potain, who is said to have a large consultation practice, but to be wholly devoid of professorial talent, has been preferred to both. "We will not trust ourselves," says the *Gazette des Hôpitaux*, "to inquire what motives can have induced the Faculty to reject MM. Peter and Jaccoud, who are both so eminently endowed with the qualifications indispensable in the professor. We might once more find ourselves among those mean intrigues, and those unavowable procedures of coteries by which the interests of science and of the Faculty have been sacrificed to those of a clique." The selection made for the chair of the History of Medicine has given rise to as much surprise. To M. Maurice Raynaud, who has shown great aptitude in relation to the literature of medicine, and has produced some valuable contributions relating to it, M. Parrot has been preferred, who is solely known as a pathologist, and especially in relation to the diseases of children. While the Faculty is thus exciting surprise by these singular selections, it exhibits no haste in expanding its circle of instruction by the appointment of additional professors, as recommended in the respective reports of Profs. Chauffard and Broca. At present the chair of Mental Diseases is the only new one resolved on.

Treatment of Nævus.

In a discussion at the New York Library and Journal Association upon the treatment of nævus (*New York Medical Record*, January 1), the following opinions were expressed:—

Dr. Garrish regarded needles heated to a white heat as the best means of treating nævi of moderate size having a solid base. Dr. Taylor remarked that the nævus araneus, or that variety in which there is a central red point, from which little vessels radiate in all directions (especially liable to occur about the nose and upper part of the cheek), can be very easily destroyed and cured by the electric needle. Again, that

variety, or subcutaneous form, which is sometimes found in the cheek, and simulates in feel a fatty tumour, is benefited by this mode of treatment. The common red-hot needles give so much pain that the patient flinches when they are introduced, and then they are cooled before they have time to reach the proper part of the growth; and in this respect the electric needles are far superior. They are easily applied, and the subsequent results in the way of cicatrices are almost nothing, for the puncture closes rapidly, and the spot where the needle has been introduced can scarcely be recognised. Where the ordinary needle has been employed, the instances are not few in which minute keloid growths have appeared in the cicatrices. Dr. Post remarked that the most important distinction is between the pigmentary and vascular varieties. Stains of the skin are mere matters of personal blemish, having no tendency to increase. Superficial nævi of the vascular kind are easily cured; and when the surface is flat, it can be treated quite satisfactorily by brushing it over with nitric acid, just enough to produce a slight superficial cauterisation. Perhaps nævi had better be left alone if they do not show any tendency to spread. When needles are employed, blunt-pointed ones should be preferred, as it is the chemical action of the heat that we wish to secure, and not the mechanical action produced by a sharp needle. When the tumour is very prominent, the ligature forms the best means of treatment, and it may be tied in halves or in more divisions, according to circumstances. Dr. Post looks upon the deeper subcutaneous nævi with some apprehension as regards the ultimate results of treatment; but he referred to one or two cases in which good results were produced from electrolysis. Dr. Foster related the history of his own case, the nævus—a congenital one, on the forearm—having been diagnosed as a fatty tumour by Dr. Bigelow. On a long incision being made into it, the mistake was discovered, and dissection was made around the base of the tumour, about thirty vessels which contributed to its vascular supply being tied. After an alarming illness, during which the question of amputation was raised, he made a good recovery. Dr. Dawson said that he was convinced that treatment should be restricted to electrolysis and the galvanic cautery. Needles cannot be heated to sufficient intensity to retain their heat so that they can be thrust in to the requisite depth; and discoloration of the tissues is produced by the oxidation of the needles. Dr. Dawson also objects to any agent that coagulates the blood, thus excluding caustics, astringent injections, etc. His favourite means is the galvanic needle, for the successful use of which some precautions are required. For superficial nævi all that is required is a degree of heat that will radiate into the deeper tissues from the surface. If too intense heat be used, it will be removed with the needle, knife, or platinum strip, whichever may be employed, and the appearance of the nævus will subsequently be the same as it was before the application; whereas if the platinum be only heated to a dark-red colour, destruction of tissue will not be produced, and the vessels will be made to shrink by the radiated heat. For all superficial nævi of moderate size a single thorough application is all that is required to effect a cure. In treating subcutaneous nævi a white heat becomes necessary, in order that the knife or needle shall retain sufficient heat to be of service when it has reached the deeper tissues. Nævi having large surfaces may be destroyed at different times, and considerable portions will also be destroyed by the moderate inflammatory action which follows each operation. The point especially insisted upon by Dr. Dawson was that the galvanic cautery did not in any true sense produce a coagulation or thrombosis in the vessels like that produced by astringent injections, but rather a clot that becomes rapidly organised, and a shrinking in the calibre of the vessels which remains permanent,—and that this can be effected without destruction of tissue. If too hot a needle or knife from the galvano-cautery be introduced into tissues, there will be as much hæmorrhage as after the use of a cold sharp knife. Dr. Allen spoke of the galvanic cautery as the most serviceable means that can be employed—the ease and rapidity of its application, and the almost total absence of subsequent severe inflammation, strongly favouring its adoption. In the superficial variety all that is required is to place the platinum, moderately heated, in contact with the surface, and allow it to remain sufficiently long to be certain that the heat has radiated to the tissues below. Dr. Andrew Smith referred to a variety of nævus which has a fibrous capsule, and the contents of which can be enucleated almost as readily as an encysted tumour can be removed. Perhaps here enucleation would be the best remedy. He also referred to nævi which are sometimes seen at the alæ of the nose, and appear to involve the entire thickness of the alæ. Dr. Dawson observed that these nævi can be treated equally well by the galvanic cautery as nævi found in other localities. A case having been mentioned in which a quack nearly cured a port-wine nævus by means of a lens, Dr. Piffard observed that he had found the solar cautery applicable to the treatment of lupus and chancroids, and believed that it might prove serviceable in nævus. While applying this cautery the eyes should be protected from the brilliancy of the light by wearing coloured glasses, else the operator will not be able to determine the exact outline of the cauterisation. With a little practice, a line no more than a sixteenth of an inch in breadth can be obtained with considerable ease. Dr. Ward referred to cases in which he had effected a satisfactory cure by the use of common hot needles. The result desired in the use of the cautery is the production of a clot in the vessels which shall rapidly become organised as after a ligature, and be followed by permanent atrophy. By the use of the galvanic cautery localised coagula are not produced, but coagulation over the entire tumour is induced at once, so that there is no *vis a tergo* left in the tumour to drive fragments of the thrombus forwards. He recommended the galvano-cautery, but also justified the use of the actual cautery by means of hot needles or hot iron, when no other apparatus could be obtained. He deprecated the practice of injecting coagulating substances, owing to the great risk of the subsequent development of embolism.

REVIEWS.

A Manual of Clinical Medicine and Physical Diagnosis. By Thomas H. Tanner, M.D., etc. Third Edition, revised by Tilbury Fox, M.D., F.R.C.P., Physician to the Skin Department in University College Hospital. London: Renshaw. Pp. 323.

The present edition of Dr. Tanner's useful little manual has one great merit, and one which we seldom encounter,—it is smaller than the last. Dr. Tilbury Fox has exercised a sound judgment in cutting out certain portions of the material which he added to the former edition. As regards the rest, the book is as useful as it ever was, and contains a vast store of information valuable to the student. We can heartily commend it. We wish, however, that a plate supposed to represent urinary deposits had been superseded by real likenesses of the objects intended to be portrayed.

A Dictionary of Hygiene and Public Health. By Alexander Wynter Blyth, M.R.C.S., F.C.S., Analyst for the County of Devon, and Medical Officer of Health for the North Devon Combination of Sanitary Authorities. London: Charles Griffin and Co. 1876. Pp. 672.

The passage of the Public Health Act of 1875 has rendered necessary, in the case of large numbers of medical men holding appointments thereunder, the special study of the various sciences bearing on sanitation, and an acquaintance with numerous Acts of Parliament and legal points relating to their administration. Hitherto it has only been possible to obtain the necessary knowledge on sanitary topics by the perusal of many separate and distinct treatises. In the volume under notice the author has endeavoured to group all the knowledge that is likely to be required by medical officers of health and public analysts. The work is based on the plan of Professor Tardieu's "Dictionnaire d'Hygiène Publique," portions of which have, with the permission of the author, been translated and made use of in the compilation of the present volume. Mr. Blyth has suitably acknowledged his obligations to Professor Tardieu in his preface, but we may be permitted to express our doubts as to the Professor's share in the production of the "Dictionary of Hygiene and Public Health" being so great as to call for his name occupying such a prominent position on the cover. But whether the work is Professor Tardieu's, Mr. Blyth's, or a joint production, there can be no doubt that it is one which will be found of extreme value to all who are specially interested in sanitation, and it is more than probable that it will become a standard work in hygiene and public health. To give a list of the subjects dealt with is impossible in a notice of this kind; suffice it to say that every topic likely to engage the attention of medical officers of health and public

analysts—including sanitary chemistry and the detection of adulterations, dietetics, sanitary engineering, etc.,—will be found fully discussed under its proper heading. A special feature of the work is that it contains, in a form admitting of easy reference, the whole of the Public Health Act of 1875, as well as sections and portions of other sanitary statutes still in force. Mr. Blyth may be congratulated on completing a work that must have entailed a vast amount of labour and research, and one that cannot fail to be a great help to those who hold sanitary appointments.

The Public Health Act, 1875; *with Short Explanatory Notes.* By J. V. Vesey Fitzgerald, B.A., Barrister-at-Law, etc. London: Longmans, Green, and Co. 1875. Pp. 298.

In this work Mr. Fitzgerald has reprinted the Public Health Act of last session, together with those sections of the incorporated Acts which are of everyday importance to those interested and concerned in municipal and parochial government, and has added, after such clauses as appear ambiguous, explanatory notes. There are also numerous references to cases bearing upon the construction of the Acts which have been decided in the law courts. The work is calculated to be most useful to medical officers of health and others who are engaged in putting the Act into execution, and may be profitably consulted by those against whom the clauses of the Act are applied.

GENERAL CORRESPONDENCE.

WEATHER AND DISEASE.

Letter from Mr. W. T. Black.

[To the Editor of the Medical Times and Gazette.]

Sir,—In reference to the report of the meeting of the Epidemiological Society of London, and Dr. Ballard's communication to it on Weather and Epidemic Disease, I wish to draw the notice of your readers to the elaborate statistics on the "Relation of the Weather and Mortality in London for Thirty Years," published in the *Scottish Meteorological Journal* for June, 1875.

The work involved in this task, undertaken by the Scottish Meteorological Society, was very laborious, and took up about eighteen months' time to get it done, in consequence of their having to collate and reduce the mortality returns of the Registrar-General for London for a period of thirty years.

The meteorological observations at Greenwich, and the deduction therefrom, were likewise gone through for thirty years, and the two sets were placed in comparison, and percentages calculated, under the charge of Dr. Arthur Mitchell and Mr. Alexander Buchan, for their respective branches of the subject. The diagrams and curves made out of these results illustrate all the most common diseases reported to the Registrar-General from week to week during the mean year, with the corresponding meteorological results, especially with regard to temperature, for comparison for a like period.

From these there appear to be developed certain specific curves of mortality for each disease, which are found to be constant from year to year, and which particularly distinguish one disease from another. There are found again to be special curves for deaths from cerebral, thoracic, and abdominal diseases; and these several curves may be traced in general or mixed diseases involving more than one set of organs in the body.

Again, all the diseases have been grouped into six columns of degrees of prevalence, from increase to decrease, apportioned to six seasonal sets for the year, instead of four, as is usual; so that the tables show at a glance which diseases are at any period in a minority, and which in the ascendant. I think I may be at liberty to say that the results arrived at by this work of the Scottish Meteorological Society will prove of permanent value in medical climatology, and be always of use for general reference by epidemiologists and sanitarians, at any rate for some time to come.

The same task can scarcely be expected to be undertaken by any person again till the next tridecade has passed, but the statistical results acquired by the investigation still require to be expounded, as explanation has not yet been entered into respecting the causes.

The authors of this statistical work fully deserve the favourable recognition of the profession for the service they have rendered to medical science by the faithful and exhaustive analysis they have made of the mortality and meteorological returns of London for more than a quarter of a century.

I am, &c., W. T. Black.

County Club, Queen-square, Bath, February.

*** We heartily endorse what is here said of the value and importance of these labours of Dr. Mitchell and Mr. Buchan.—Ed.

BRITISH MEDICAL ASSOCIATION.

We have been requested by Dr. Kebbell to publish the following letter, addressed to the Editor of the *British Medical Journal*:—

Sir,—As the terms in which you and the Committee of Council speak of the late meeting held in Brighton on the 22nd ult. are calculated to mislead not only the members of the Association, but the profession generally, I feel constrained, as chairman of that meeting, to set forth thus publicly its true nature.

The meeting in question was convened by a circular signed by the three secretaries appointed by the Committee of Council, and sent to every qualified practitioner in the town. The objects of the meeting being set forth in the *agenda*, the appointments of president, vice-presidents, and secretaries of each section, and the members of six or seven local committees, we have a right to assume that all interested in the approaching August meeting attended in person or by letter. What are the facts? Thirty-one responded to this invitation; out of these, twenty-five voted for Dr. Withers Moore's amendment, and one, exclusive of the secretaries, against it, thus clearly showing forth the feeling which pervades the profession as to the line of conduct which has been pursued by the authorities of the Association. As the history of this unfortunate business will, no doubt, be written before the time of the August meeting, I shall forbear to comment upon the taste or wisdom of the acts of the Association, and will merely add that, in my humble opinion, the British Medical Association, and not the profession of Brighton, are responsible for the present unseemly state of matters. I am, &c.,

William Kebbell, M.D., Chairman
Brighton, March 7. of the Brighton Meeting.

REGISTRARS OF BIRTHS AND QUACK MEDICINES.

[To the Editor of the Medical Times and Gazette.]

Sir,—A printed circular, a copy of which I enclose, puffing and recommending "Atkinson and Barker's Royal Infants' Preservative," is given by the registrar of births here to each mother along with the vaccination certificate. This practice, if not illegal, is, I think, fraught with much mischief, as mothers only too readily make use of quack medicines. Several mothers in the better classes have directed my attention to the paper, knowing that the use of infants' preservatives is condemned by the profession. Can any measures be taken to put a stop to this practice, which has already been going on for some weeks?

I am, &c., M.D.

Medical Senators.—The following medical men have been elected Senators:—MM. Testelin (for life), Bonnet, Cazalas, Claude, Espinasse, and Robin. M. Delacroix, a *pharmacien*, has also been elected.

Experimental Excretion of Sugar in Cirrhosis of the Liver.—M. Lépine, at the Biological Society, after giving an account of Claude Bernard's experiments, showing that while injection of glucose into a peripheral vein induced glucosuria, its injection into the vena portæ had no such effect, described some experiments and observations which he had since made. In two cases of cirrhosis of the liver he caused the patients to take 400 grammes of glucose in their *tisane* during the course of the day. By the next day a glucosuria was found to be established, and continued for so long a period as five or six days—so that in the cases in which the liver does not retain the glucose, we have glucosuria produced by its administration. In patients not suffering from this disease, glucosuria cannot thus be produced, nor can it be in other diseases, as, *e.g.*, cancer of the liver. In this way the production of glucosuria may become, in doubtful cases, a means of diagnosing cirrhosis from other diseases with which it may be confounded, as, *e.g.*, chronic peritonitis, etc.—*Gaz. des Hôp.*, February 29.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, FEBRUARY 25.

Sir WILLIAM JENNER, Bart., K.C.B., M.D., D.C.L., F.R.S., President, and subsequently E. HEADLAM GREENHOW, M.D., F.R.S., Treasurer, in the Chair.

A CASE OF MORPHŒA.

Dr. DYCE DUCKWORTH exhibited a male, aged twenty-six, suffering from this disease on the left half of his forehead, which had commenced about four years previously. At that time, it was a smooth slightly depressed and glossy patch (morphœa plana), of the colour of ivory, and incapable of being pinched up by the finger and thumb. Where it encroached upon the scalp, some of the hairs had fallen out, others had broken off short. No sudoriferous action occurred upon the patch; and sensibility was blunted, but not lost. The patch continued to grow, and in August, 1873, it was of a darker hue; some pink vascularity and small venules were visible in places. The greater part of the surface had become raised (morphœa tuberosa); sensibility being greater on the flat than on the raised portions. Some fine downy hairs were growing near the centre of the patch, though there were broken hair-stumps at the margins. In March, 1875, the patch was less obvious and less raised; hairs were growing upon it. In February, 1876, the patch was assuming a more natural aspect; no extension had recently occurred; sensation was still blunted; and the patient had a feeling of tightness in the patch. The affected area seemed more vascular and warmer than the adjacent integuments. Dr. Duckworth considered this a typical case of morphœa, and remarked that he had met with no example of the disease existing on the right side of the forehead, though he had collected six cases of the disease on the left side. Local treatment had appeared to be of no avail. Prognosis was favourable, though six or eight years might first elapse. He thought there was no alliance between this affection and true leprosy. Tonics and attention to the general health were the only indicated methods of treatment.

Dr. HILTON FAGGE was interested in the subject, as models of two of the recorded cases were in Guy's Hospital museum. He had also seen a third. These were all distinctly localised in the region of the fifth nerve, and though similar to scleroderma, there was no other localised form of scleroderma. He hardly knew whether there was a fibroid deposit, subsequently absorbed; if so, this was a rare occurrence.

BULBAR PARALYSIS.

Dr. DOWSE showed a patient who had recovered under his treatment from bulbar paralysis, the case being the only one recorded in this country which had been completely cured. The patient's history was essentially neurotic. The mother, previously healthy, had died only a fortnight since from an attack of apoplexy of twelve hours' duration. He, when a child about twelve months old, suffered from convulsions, but grew out of them, went to school, and was fairly intelligent. At the age of sixteen he had a series of well-marked epileptic seizures of great severity, resulting in paralysis of the whole body save those parts supplied by the first, second, third, fourth, and sixth nerves. The paralysis was complete, both of motion and sensation. There was trismus of the jaw from palsy of the pterygoids; also of the lips,—he could neither bring them together nor perform the act of whistling. The saliva was constantly making its way from the mouth. The pillars of the fauces and soft palate were immovable. He was fed with fluids, which often returned through the nostrils; and at times he was nearly asphyxiated by their passing into the larynx. Upon admission into the Central London Sick Asylum, at the age of twenty, most of the above signs and symptoms were well marked; but the paralysis of the upper extremities was gradually diminishing. He was of stunted growth and dark complexion, and was quite intelligent, though absolutely dumb. He had the greatest difficulty in getting food into the pharynx: his best mode of procedure was that common in such cases—namely, to fill the mouth, and with the fingers to push the food over the epiglottis into the bag of the pharynx. The tongue lay flaccid, wrinkled, and immovable, behind the lower row of teeth. Upon ophthalmoscopic examination, the right eye showed cupping of the disc, with enlarged vessels; the left was similar, but the appearances were less marked. The teeth were well defined, and gave no evidence of congenital syphilis. The vocal cords moved freely. The only sound he could make was a sort of grunt. The lower extremities were rigidly extended, and absolutely devoid both of motion and sensation. The heels were well drawn up, as in equino valgus. Dr. Dowse then narrated the progressive return of voluntary power. So far as the bulbar palsy was concerned, it first made itself evident in the motor division of the fifth by movement of the jaw; the lips could then be approximated; the saliva ceased to flow from the mouth; he could feed himself with slowness and some difficulty; but the tongue remained immovable. He continued in this state for nearly twelve months, neither improving nor retrograding. He was taking cod-liver oil, quinine, and phosphorus. The paralysed parts were now brought under the influence of galvanism, and injections of one-sixth of a grain of strychnia and one-twentieth of a grain of atropia were daily used to the lower extremities. At first, the induced current from a two-celled Stöhrer's battery was several times applied to the tongue without any result; after this the continuous current from six cells of Stöhrer's battery was then applied, and with the best results, for the tongue was quickly protruded and as sharply retracted. For some days, however, he had no voluntary power over it, but the use of the daily galvanic stimulus shortly insured this, and articulation soon became perfect. It was for some time almost inaudible, and the letter R was the most inarticulate of all the consonants. With this the power of swallowing soon returned, so that he had complete co-ordinate voluntary power over those parts supplied by the bulbar nerves. The last to regain power and sensation were the lower limbs. The muscular atrophy here was so extreme that nothing but the tibia and integuments appeared left; but the galvanism, frictions, and injections gave the excellent effects now seen; for, instead of his being a mute, helpless, and emaciated creature, he had complete voluntary power over every part of the body. In reference to the nature of the lesion in the medulla, Dr. Dowse thought that it existed within rather than without this part of the cerebro-spinal system; it might most probably be due to venous extravasation during one of the severe epileptic seizures.

Dr. HUGHLINGS-JACKSON said the case was both valuable and rare. He had never seen a patient with bulbar paralysis recover, and Dr. Dowse was to be congratulated on the termination of his case.

TWO CASES OF LEUKÆMIA.

Dr. MOXON read a paper on two cases of leukæmia, one simple, one with jaundice, neither with notable enlargement of the spleen, both treated with phosphorus, and both dying of hæmorrhage. The first case was that of a man, a cook, aged forty-five, who, in December, 1874, fell ill with pain in the right hypochondrium; this was succeeded, in about a month, by jaundice, which remained until his death, in November, 1875—the stools, however, always containing bile until the last two weeks. In May it was noticed that his blood showed an excess of white corpuscles, about 150 in the quarter-inch microscopic field. Phosphorus in one-fiftieth-grain doses (as ol. phosp. in mucilage, etc.), was taken from May until September, thrice daily. Meantime there was no change in the proportion of white corpuscles. The liver had grown larger, and a double tumour appeared on its lower edge. During the summer and early autumn the man did half work at his calling, until November 3, when he presented himself, severely ill, collapsed, and was admitted again into Guy's, where a peritoneal fremitus developed itself over the liver. He suffered from pain and vomiting, and the jaundice deepened; bile left his motions. He gradually sank then, and died November 16. Before his death, Mr. Golding Bird examined the blood on the warm stage, and found that the white corpuscles, in great excess as they were, nevertheless all showed amœboid movements, like normal white corpuscles. At the inspection, Dr. Goodhart found a tumour about the bile-duct at and around its entrance into the duodenum, which obstructed it. The gall-bladder and bile-ducts were immensely distended, and there was a suppurating cyst just outside the gall-bladder, exactly like the cysts found under similar circumstances outside the urinary bladder. A semi-recent hæmorrhage was found to have occurred into the biliary passages, so that a cylinder of blood-clot stopped up

the lower end of the dilated bile-duct. The spleen weighed only nineteen ounces. There were hæmorrhagic spots in it, and it showed the usual simply hypertrophic characters of leukæmic spleen. The lymphatic glands were not at all enlarged. Dr. Goodhart found the marrow of the ribs to be loaded with white-blood cell-like corpuscles.—The second case was that of a cheesemonger, aged thirty-eight, a pale short man, of boyish appearance, who, in July, 1875, began to complain of weakness, which was increased by a shock in a collision of vehicles, in which, however, he did not suffer any bodily injury. His complaint was of languor, loss of appetite, and pains in the loins and testes, "drawing up" the latter. In early September, the blood was found to be loaded with great excess of white corpuscles; and then phosphorus, in one-sixtieth-grain doses in mucilage, etc. (as ol. phosp.), was given thrice daily for a month. During this time the patient grew worse, and at the end of it showed alarming symptoms. The white corpuscles were now estimated at one to every two of the red; vision was dim, and bleeding occurred from the gums, nose, and kidneys. The spleen was just palpable below the ribs; a loud anæmic murmur was heard over the base of the heart. On October 25 he had an attack of apoplexy, from which he died. On inspection, the heart was found healthy; the blood leukæmic. The spleen weighed twelve ounces, and was simply hypertrophied. There was an apoplectic clot of about two ounces weight under the convolutions of the right vertex. Microscopic examination of the tissues showed an excess of white corpuscles in the lymphatic spaces, but the lymphatic glands were not at all enlarged. Dr. Moxon remarked that these cases showed that, when the spleen was not sufficiently enlarged to draw attention to or make a conspicuous feature in a case, and when the lymphatic glands were not at all enlarged, leukæmia might be present, and, as in the second case, reach an extreme degree, and prove fatal with hæmorrhage in the usual way. The observation of excess of white corpuscles in the medulla of the bones was important in reference to Dr. Neumann's supposition that the medulla of bones might be the source of white cells in leukæmia, which source, with the two sources in the spleen and lymphatic glands, made three distinct modes of origin for a disease which was clinically so uniform as to render it very unlikely that it thus varied in its origination. Dr. Moxon referred to the difficulties of circulation in the marrow of the bones, on account of the rigidity of the small channels along which the venules passed; and he held that the choking of these venules with white cells in leukæmia would naturally lead to an "out-wandering" of white cells into the marrow of the bones, in the same way as in Cohnheim's experiments; so that the white corpuscles in the marrow were secondary. Again, he went further, and held that, even in the case of the so-called lymphatic leukæmia, the enlargement of the lymphatic glands was really secondary to the leukæmia, and arose by outwandering of the more numerous white cells, which Mr. Golding Bird had shown to possess amœboid movements, and which passed from the blood into the texture-spaces, in the manner described by Dr. Klein; thus producing lymph corpuscles in excess, which, going up in the lymph-stream, and reaching the glands, would form tumours there, if unable to pass; but if the glands were able to give passage to them, then there would be no such tumours. In the first case, one had the falsely so-called lymphatic leukæmia; in the second, splenic leukæmia. In support of this, he mentioned that the cases advanced as lymphatic leukæmia were very few, and in nearly all of these the spleen was described as very large; while in the one or two exceptions, either (as in Dr. Hounsell's case) the leukæmia showed only fifteen times the proper number, which is not enough to characterise leukæmia, or else (as in Dr. Ward's case) not only was the proportion of corpuscles doubtful, but the spleen was as large as in the case Dr. Moxon had brought forward, and in which leukæmia was present without any enlargement of the glands. So that this case disposed of the other so far as the glands were concerned. Lastly, as to the phosphorus, it had entirely failed in both cases; and Dr. Moxon remarked that, in the case by Dr. Wilson Fox, the record of which had induced him to try the medicine, the proportion of white cells in the blood was so small as not to constitute decided leukæmia, whilst the spleen was still large after the short course of phosphorus on which a favourable verdict had been given.

Dr. Broadbent, having been directly responsible for the use of phosphorus in leukæmia, wished it to be understood that he did not advance it as a certain cure for the disease. As to Dr. Moxon's first case, he thought it might be put on one side—the symptoms were due to cancer, and not to leukæmia. As to the second case, he desired to know how the phosphorus was given. If given either in mucilage or in coated pills he did not believe it had any effect. It should be given dissolved in oil, and in capsules. Unless the remedy reached the blood it would have no effect. In Dr. Wilson Fox's case, though the spleen remained enlarged, there was a decided amendment with the phosphorus. In another case of pernicious anæmia with intermittent hæmaturia, the use of phosphorus caused pain over the spleen, and fever, followed by a softer condition of the organ. He had used it in the earlier stage of Hodgkin's disease with effect, but not in the later.

Sir W. Jenner also doubted the existence of leukæmia lymphatica, but agreed with Dr. Moxon's explanation of the condition of the bones. He did not think the increase of the white corpuscles a true test of the severity of leukæmia. He had given phosphorus for months, in the form of pill, to a patient the subject of enlarged spleen, numerous white blood-corpuscles, and high fever. It did no good, and the patient died of his disease. The pills might be of no use, but they were made with fat, according to the formula of the British Pharmacopœia; and if this was no use, it should be publicly known.

Dr. Broadbent said he did not take objection to pills made with fat, but to those made with mastic.

Mr. Spencer Watson said he had employed the ophthalmoscope in two cases of great anæmia, and had found œdema of the retina.

Dr. Mahomed remarked on the condition of the pulse as reported. If there were stasis from accumulation of white corpuscles in the capillaries, there would probably be high tension and a long and hard pulse.

It was explained that in the second case the oleum phosphoratum was used mixed up with mucilage: it was powerfully phosphorescent, and smelt strongly. Dr. Moxon also said that the oleum phosphoratum was used in the first case. The absence of high tension in the vessels might be due to imperfect propelling power.

Menière's Disease.

Dr. Duffin related the history of a case of this disease that he had observed for two years. Besides great degradation of hearing, the man was liable to paroxysms of subjective noises in the right ear, associated with fits of vertigo and a tendency to fall to the right. Skull-vibrations to a tuning-fork were almost, if not quite, absent on the affected side, although the whole range of the pianoforte could be dimly followed. After eighteen months considerable amelioration set in; but the left ear then became somewhat involved, and the vertigo tended to throw him towards his left side. In one of his later fits, the patient for the first time lost consciousness, but without any other indication of epilepsy. Dr. Duffin remarked on the pathology of the vertigo, alluding to three fatal cases of injury to the labyrinth recorded by Knapp, and to Dr. Lockhart Clarke's researches on the cerebellar and vagus connexions of the roots of the acoustic nerve. He also described the effect of pressure on the vagus of his patient, which was to throw the man into a faint and to slow his heart during recovery. He then alluded to the functions of the cochlea, and the value of musical intervals in the appreciation of the duration of time. Lastly he alluded to the prognostic value of skull-vibrations in suspected disease of the labyrinth.

Dr. Hughlings-Jackson said he had been consulted by many, particularly medical men, for such symptoms. They would hardly believe the ear had anything to do with it, though they heard noises there. This was probably due to mischief of the cochlea or semicircular canals, which might be affected in many different ways. Connected with this was the observation of Dr. Gowers, that often in paralysis of the portio dura there was slight giddiness at the beginning. He did not think that the cochlea was concerned in determining intervals alone. Certain facts Dr. Jackson also related having reference to the side affected and the movements in the disease,—as in the case of a gentleman who became permanently deaf on the right side after shooting, and then always tended to walk to the left.

Mr. Dalby had been struck with the frequent association of tinnitus and giddiness with deafness. He had been led to group the cases into two divisions—one where a sudden giddiness was followed by deafness; and the other where the giddiness was subsequently repeated. In one case a patient was

attacked with giddiness, fell down, and was found to be deaf. In another such case there was loss of power to hear the high notes in music. The other set of cases was more frequent, and in these the exact point of the musical scale where hearing ceased was easily defined. In all cases he thought the labyrinth affected.

Dr. Buzzard thought that more than one malady was comprehended under the name of Menière's disease. In many cases there was a tripod of tinnitus, neuralgia, and vertigo. He had seen cases much worse than Dr. Duffin's. In one the patient was deaf in the left ear with tinnitus, and was unable for three months to turn the head; in another there was almost constant giddiness and vertigo for six weeks. The attacks were always paroxysmal and combined with neuralgia. In many cases there could be no structural change in the semicircular canals. He thought the condition rather resembled a "nerve-storm" affecting a special nerve of sense.

Dr. Ferrier said that from the peculiar relations of the semicircular canals any movement of the body would give rise to irritation of some portion or other of them through motion in the endolymph. The body would be thrown to the side opposite the irritation, and if the posterior canal was affected the body would be thrown forward. In this way he thought both Dr. Duffin's and Dr. Jackson's cases could be explained. It was also worthy of note that the cochlea seemed best to appreciate sounds propagated through air, whilst the semicircular canals were sensitive to vibrations propagated through the skull.

Dr. Broadbent suggested that possibly the patient thought he was falling in one direction, and in recovering himself swayed too much to the other side. This appeared to be the case with Dr. Duffin's patient.

PATHOLOGICAL SOCIETY.

Tuesday, March 7.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Adjourned Discussion on Syphilis.

Dr. Broadbent said that whether dualism were dead or not, he hoped it might be taken as dead for the present discussion. His own interest in the debate was much the same as Dr. Wilks's. Syphilis afforded an illustration of the gradual invasion of the system by a poison that could be studied at leisure, but since Mr. Hutchinson had invited experience, he would make a few contributions. And, passing over some of the first points raised, he would come to that of the later history of cases of congenital syphilis. Mr. Hutchinson had given as his experience that such persons were not liable to syphilitic disease of the nervous system, to nodes, to gummata, or, as far as he had seen, to serious disease in later life, once the earlier stages were past. Dr. Broadbent said that his own experience was much the same. He had seen very few instances indeed of disease of the brain in inherited syphilis. Nodes and gummata were not so rare; he had seen large gummata of the tongue and skin, and peculiarly rapid destructive ulceration of the soft palate and pharynx. As regards the important statement that hereditary syphilitics were not specially liable to serious disease later, it had struck him that the syphilitic physiognomy was very rare after middle life. He should like to know Mr. Hutchinson's data for the statement that in some cases of hereditary syphilis watched by him the granular disease of the kidneys which proved fatal was probably due to large doses of iodide of potassium. He himself should be inclined to attribute the contracted granular disease of the kidney to syphilis. This form of renal disease occasionally occurred in early life; and in two such cases seen by him, inherited syphilis, and no other obvious cause, was present. Other subjects of inherited syphilis perhaps died of amyloid disease. Where disease of bone or suppuration was not present, amyloid disease, according to Dr. Fagge, must be referred to syphilis. If this was true, it could only be congenital syphilis in some young subjects. And he had seen at least one case of aneurism with congenital syphilis. He would now turn to the relations of syphilis to the specific fevers, and first he would beg to circumscribe the class with which it was compared. No doubt syphilis was a blood-disease. Of blood-diseases one class was well limited—the fevers, where (1) the poison was introduced from without, derived from a pre-existing case of the disease; (2) the poison was reproduced in the individual; (3) a very definite course and duration were observed; and (4) the same individual was attacked only once during life. To this group, then, syphilis was compared; and these definitions excluded pyæmia and ague, though both were mentioned by Sir James Paget. If the affinity of syphilis with these fevers were established, an important step would be made; and syphilis would afford an opportunity of studying blood-poisons more leisurely than in the others. One condition, however, syphilis refused to fulfil—it was irregular in its course. If the tertiaries were included, it could not be grouped with the fevers. This was the only obstacle; and to remove it Hutchinson grouped the tertiaries with sequelæ, or tissue, or local effects of the antecedent febrile process, and based this partly on the characteristics given by Paget of symmetry in blood diseases. The whole question, then, turned on the tertiary stage. Sir James Paget had told them that some blood diseases might cease at last to appear symmetrically, and that want of symmetry did not imply its cessation as a blood disease. Gout was another example of the same. But Dr. Broadbent said tertiary syphilis could not be compared with other sequelæ. Its manifestations were specific, and easily recognisable; while the thrombosis or necrosis after typhoid fever was not specific, but simply vulnerable tissue breaking-down under a strain. Not a single parallel could be found with the syphilitic tertiaries, except such as the bubo of typhus, the renal disease of scarlatina, etc. Besides this objection, there were others; and Mr. Hutchinson, appreciating these, had brought forward, among other arguments, his hypothesis of old deposits. On this Dr. Broadbent declined to give an opinion. As to the similarity of syphilis in the three stages, this appeared simply to prove that it was the same disease throughout. Perhaps the histological similarity of syphilitic products had been pushed too far. Clinical history showed a great difference; and especially the character of destructive ulceration in the tertiary stage should not be forgotten. But yet more considerations went against the idea that tertiaries were mere sequelæ, and not constitutional. There was Mr. Hill's fact, which he could confirm, that tertiaries were more likely to occur when secondaries had been slight. Re-growth might be urged here, the "germs" remaining, and being ready to grow. Another difficulty had been urged—the fact that a parent with tertiary syphilis might transmit syphilis to his child, which should go through the whole course. To his mind, the difficulty was how the child should have syphilis at all. For if syphilis were transmitted at all, it could not easily be but as a blood disease: the blood was developed out of the tissues,—out of the product of the germ and the sperm. And here he would ask, in passing, whether hereditary syphilis was so severe because hereditary, or because infantile; those who had seen vaccine syphilis might answer this question. Still another difficulty about tertiaries arose out of the fact that a woman might become syphilitic by contamination from a syphilitic fœtus, indirectly, and that under these circumstances she might have no secondary symptoms, but go straight to tertiary. Such cases were not rare; and Mr. Hutchinson had told him personally that though he was now doubtful about them he had credited them twenty years ago. Kassowitz, too, had criticised this view. As for himself, he held the view with a considerable amount of confidence. And there were such cases as the following:—A woman had three successive pregnancies with syphilitic children. After each event she was attacked regularly with terrible syphilitic ulceration of the pharynx, but was benefited by iodide of potassium. Again she was attacked; this time the disease did not yield to the same drug. It was discovered that she was pregnant; and not till after abortion did she recover. Again she became pregnant and syphilitic, and recovered; a third time pregnant and syphilitic, and died. He believed, therefore, a woman might get syphilis through the fœtus, and that it ran a different course. All these difficulties he had set forth freely, not because he objected to the theory of syphilis being a fever, but because he desired to see the difficulties removed. And on his faith in the correctness of the theory, he believed that other fevers also might yet be found to be, like syphilis, amenable to treatment. His own opinion would be somewhat differently expressed. He had shown that the sequelæ of other fevers were non-specific, yet among the results of all fevers there was one quite specific, namely, the immunity from return. Sir William Gull had shown that this result was due to some profound change in the tissues themselves. And, in the tertiary

symptoms of syphilis, Dr. Broadbent said that something might yet be found which might lead them on to this specific tissue-change wrought by fevers.

Dr. Buzzard said that there were two points in Mr. Hutchinson's address on which he wished to remark—(1) the suggestion that visceral lesions were more common in the secondary stage than was supposed; and (2) the hypothesis that tertiary symptoms might represent the renovation of early germs. On the first point he was able to adduce some evidence. It was but recently that the neuroglia and the cerebral vessels had been discovered to be the seats of syphilitic disease; and even now the idea of nervous disease in the secondary stage was not general—even Mr. Hutchinson had spoken to this effect. He wished, therefore, to bring forward the result of an examination of 100 cases of syphilitic disease of the nervous system, and of the relation of the disease to the stage. The mean age was thirty-five years; no case was included in which renal or circulatory disease could be discovered; in only two was there a history of previous injury. Of the 100 cases the date of infection had been ascertained in 83; of these 56 occurred at a date later than five years, and 27 under five years—that is, in one-third of the number. Altogether the appearance was noted at from one to twenty-five years after infection—in the first five years 27, in the second 23, in the third 25, and in the other two periods of five years 6 and 2 cases respectively. Of the cases appearing within five years of infection, 6 occurred in the first two years, 4 in the third, 6 in the fourth, and 11 between the fourth and fifth. The chief forms of disease were hemiplegia, paraplegia, and convulsive disease; in no case was optic neuritis seen before the third year from infection. The character of the early cases was not very remarkable; no case died, but, judging by clinical signs, there was no marked difference between these and patients attacked later, except that certain symptoms of visceral syphilis might be wanting. There might be said, therefore, to be no evident difference between early and late cases. Next, as to the second point, whether tertiary symptoms represented a renovation of early germs. He was inclined to believe this. In syphilitic nervous diseases want of symmetry was remarkable, and recurrence was strikingly common, which would suggest the presence of a local deposit occasionally revived in action. Fever, too, was absent. He would also suggest that the deposit might select special tissues, knowing as we do its affinity for bursal sacs, synovial cavities, and other parts which have been shown to be extensions of the lymphatic system. Disease of the bloodvessels was in the same way originally perivascular lymphatic disease; and he would venture to suggest that, at the time of the exanthem, potentialities of disease, if not germs, were imported into the lymphatic system, where they remained inert until afterwards called into action; that, in fact, the lines of the future gummata were laid down during the exanthemous stage of the disease.

Sir William Jenner observed that he would say but a very few words. He had to own that he certainly was not acquainted with the marked symmetry which had been said to characterise certain diseases. Typhoid fever, for example, seemed to him to be characterised by want of symmetry. So with psoriasis, which was not a blood disease; it could be produced by irritation. He failed to see that symmetry was a mark of blood disease, or that the converse was true. There was one disease, with its sequelæ, to which Sir William wished to direct their attention—he meant diphtheria. It was an acute specific disease, having its origin in a special poison, ran its course, and then, after fourteen or twenty-one days, the child perhaps began to see badly, and the eyes, pharynx, and limbs were successively affected. Here the sequelæ were part of the disease, quite different from the renal sequelæ of scarlatina. Again, there was something more than blood disease in such affections as syphilis. In congenital syphilis the physician saw something very different from a disease of the blood. He saw the syphilitic father; he observed that two cells and no more, the sperm and the germ, produced the diseased child, and yet each particle developed from these cells had a specific character. The first development of the disease was therefore in the tissues, and not in the blood. And, as in cancer, the sperm gave the potentiality of development; and it was the same in every congenital or hereditary disease. In syphilis the appearances were observed early, in cancer late. The father gave this potentiality of development to all tissues, to the colour of the eyes and of the hair; even to the weakness of the hair and of other tissues. Thus the potentiality of development, and not the blood, was the real key to the problem.

Dr. Moxon said that of the facts he had to give none had a special bearing on Mr. Hutchinson's theories. First, he would say that the average age at which visceral syphilis had proved fatal, in fifty-six inspections in his experience, was thirty-seven years. This fact was useful to bear in mind for the sake of prognosis generally. His experience was that once visceral syphilis was present, the term of life was a short one. This experience was got from iodide of potassium treatment; but he believed with Sir James Paget that the iodide might be of use temporarily only in the tertiary stage, and that mercury was necessary for the complete cure. If this treatment was correct it had a bearing on the divisibility of syphilis into different stages. The distinctions between the stages of the disease other than those connected with treatment were indefinite. Criticising Mr. Hutchinson's remarks on the similarities and differences between the phenomena in the secondary and tertiary stages, Dr. Moxon said that when Mr. Hutchinson spoke of the greatest differences as "after all being merely a question of abundance, and not so much of character," he resigned the whole position. With regard to symmetry, it was admitted that secondary syphilis came out in thousands of blotches, and tertiary only in a few. Why should not the secondary be symmetrical if so abundant? It was like the symmetrical wetting of the segments of an umbrella by a shower of rain: the umbrella, and not the rain, determined the symmetry. The fallacy involved in such a statement Dr. Moxon proposed to call the "fallacy of universality." But again, it had been said that in the secondary stage syphilis attacked symmetrically the tonsils, the iris, and the cornea. Here the fallacy of universality did not apply. The reason was that there was no more cornea to be affected. If we had had five eyes, like a scorpion, they would probably all have been affected; or if the poet that longed to become all eye had had his wish, and caught syphilis, he would doubtless have presented an universal keratitis. The liver was in one piece; the cornea in two: therefore keratitis was symmetrical. Dr. Moxon would call the second fallacy the "fallacy of totality." There was a third. Sir James Paget had brought forward, as instances of symmetry, suppuration of a vein, and inflammation of a rib, after typhoid fever; and brow ague. But how could suppuration of one thing be symmetrical? If Sir James could show no reason why two ribs should be affected instead of one, why should the single disease be called symmetrical? This he would call the "fallacy of unity." His next proposition might seem wonderful: let the phenomena of these three fallacies be dismissed from the mind, and it would be struck with the most remarkable examples of symmetry in tertiary syphilis. Thus, he had seen lately a patient with symmetrical tertiary ulcers on either leg; another with the same on either knee; and another with symmetrical palmar psoriasis. And lately a case had been shown to him where the roots of the vagus on the floor of the fourth ventricle were exactly symmetrically engaged in a gumma. Four better facts could surely not be got in secondary syphilis. Again, Mr. Hutchinson would find that what he called blood disease—syphilis—was not so classified by the College of Physicians. Dr. Moxon further said that he did not believe in the least, nor accept the belief, that syphilis was ever a disease of the blood. Though syphilis might be given by the blood, it no more belonged to the blood than did a physician in a train belong to the railway company. Even pityriasis versicolor had been mentioned by Sir James Paget as a blood disease! What about trichiniasis, which was remarkably symmetrical? Again, respecting Mr. Hutchinson's great theory of the relation of the secondary to the tertiary stage, that gentleman did not seem to think any other view than his own possible. But Dr. Moxon believed not only that syphilis was not a blood disease, but that all febrile disorders, when they struck virgin ground, raged with great freedom—for example, small-pox; the severity of fevers in strong subjects; the immunity from a second attack. The freshness of the poison was the source of the severity. This observation was probably first made by Linnæus, and a palm-tree had been described which took four years for the bud to form, four for the blossom to open, and two years more: this was a blossoming diluted by time. He would call syphilis a fever diluted by time. Next, he would remark, respecting mother and fœtus, that when a woman has a fœtus in the uterus, she has certainly a new mass inside her, alive to the action of syphilis. This new piece of flesh accordingly takes the syphilis on. "Is not the placenta always diseased?" it might be asked. Yes; but it presents mere fatty degeneration. The placenta has no tonsils: it cannot get keratitis or choroiditis;

the poor placenta cannot get more than fatty degeneration. How did tertiary syphilis appear in adults? Take the structure of a piece of bone: the Haversian spaces represented portions removed, to be again filled up. As Dr. Fagge had said, might not the same happen in soft tissues? and the whole right lobe of the liver might be found absent. And, again, a man might be enormously reduced by "training." Therefore, he would speculate that tertiary syphilis came, not by breaking out again, but by appearing in newly formed parts, whether in the central nervous system or elsewhere. Though he had found many facts in support of this theory, he did not wish to pursue it further. And if Mr. Hutchinson would promise to say nothing more about his hypothesis of regrowth from residues, he would himself undertake not to mention his own theory again!

The discussion was then adjourned.

The following gentlemen were elected members of the Society in the course of the evening:—Dr. MacGrath and Mr. Arthur Roper.

OBITUARY.

SIR GEORGE DUNCAN GIBB, Bart., M.A., M.D., M.R.C.P., L.R.C.S.I., F.G.S., Hon. LL.D.

Sir Duncan Gibb died on the 16th ult., at the early age of fifty-five, at his residence in Bryanston-street. He was born at Montreal on December 25, 1821, and was educated at McGill College, in that city, where he graduated in 1846, and was almost immediately afterwards appointed Surgeon to the Canadian Militia. He subsequently went to Dublin to pursue his studies; and became a Licentiate of the Royal College of Surgeons in Ireland. He came to London rather more than twenty-five years ago, and his industry and perseverance soon made him known to many of the professional workers. In 1855 he was appointed reporter to the *Lancet*, which post he retained till 1866. In 1859 he became a Member of the Royal College of Physicians of London; and he received the LL.D. Quebec in 1864. He was originally appointed Physician to the St. Pancras General Dispensary, an appointment he held for some years with great credit, and which he only resigned on his appointment as Assistant-Physician to the Westminster Hospital. He for a short time held the office of Physician to that institution. He was also elected member of many learned societies. In his early career Dr. Gibb wrote several treatises on general medicine, as, "On Whooping-Cough," "On Diseases and Morbid States of the Urine," "On Saccharine Assimilation," "On Saccharine Fermentation in the Breast," "On Atheromatous Expression," besides several communications in the *Pathological*, *Obstetrical*, and *Medico-Chirurgical Transactions*. Before the invention of the laryngoscope he had written a work on diseases of the throat, and when Czermak's pamphlet appeared, he was naturally selected to translate the French edition. His knowledge of the French language enabled him to produce a very satisfactory *brochure* for the New Sydenham Society. His industry soon led to the production of an independent work on the laryngoscope, which reached a third edition, and he subsequently published a second edition of his work on "Diseases of the Throat," enlarged and improved by his experience in laryngology. He also published other smaller books on diseases of the throat, notably, on "Diseases of the Hyoid Bone," "Throat Cough," etc., and became an acknowledged authority on this class of disease throughout Europe and America. Dr. Gibb did not confine himself to purely medical literature. He produced other contributions to science—specially to geology—several of which were made at meetings of the British Association for the Advancement of Science. From these contributions it is evident that he was a man of more than average culture, and his learned work on the "Life of Robert Gib, Lord of Cariber, 1524 to 1650," showed considerable erudition and no small amount of archæological lore. His papers on longevity were read with interest by the public, and his contributions to anthropology supported the latest views in evolution. He also had prepared the materials for, and intended shortly to publish, a work on coins and medals, of which he had a valuable collection.

While engaged in researches for his cousin as to the title to the Breadalbane peerage, he discovered that there was a dormant baronetcy in his own family, and, upon very high legal advice, he assumed the title. His wisdom in so doing has been questioned by many, but we are informed that his legal right to the title would have been proved very shortly. Throughout his illness Sir Duncan enjoyed the benefit of the kind skill of Drs. Scott Alison and Routh; he also had the advantage of the opinions of Sir George Burrows, Dr. C. J. B. Williams, Dr. Walshe, and Dr. Hughlings-Jackson. He had been suffering, more or less, since last April, when an attack of pericarditis and pleurisy supervened. A brief apparent recovery took place in the summer, but it was only transient. The left lung became disorganised, and at the post-mortem it was found to consist of corpuscular *débris* undergoing retrograde metamorphosis; and grave pathological changes were found also in the right lung and in the liver. Sir Duncan Gibb was buried at Kensal-green. His death will be deplored, not only by his own family, but by many friends, and a large number of patients, who had reason to appreciate his uniform kindness and manifold skill.

JOHN MORGAN, M.A., M.D. Univ. Dub., F.R.C.S.I.

This well-known member of the profession in Ireland died at his residence, 23, St. Stephen's-green, Dublin, after a very short illness, on the afternoon of Saturday, March 4. Until last Friday fortnight Dr. Morgan was in his usual good health, but on that day he complained of feeling not quite well. During the following days he experienced some *malaise*, and suffered from headache, but, notwithstanding, he was able to see patients at his house, and walked out so lately as the Thursday before he died. On Friday morning he complained of abdominal uneasiness, and in a few hours the symptoms assumed a very grave aspect. Great engorgement of the spleen, tympanites, tenderness on pressure, and at last intense abdominal pain, with pallor of the face, which looked pinched and drawn, were followed by extreme prostration and death. There is no reason to doubt that the disease to which Dr. Morgan succumbed thus prematurely (he was only forty-seven years of age) was enteric fever. He was in the enjoyment of a considerable practice, and had won for himself a wide reputation as a surgeon and syphilologist. By his lamented death the chair of Surgical and Descriptive Anatomy in the Royal College of Surgeons (Ireland), a surgeoncy both to Mercer's and to the Westmoreland Lock Hospitals, and some minor appointments, are vacant. Dr. Morgan's writings included "Practical Lessons in the Nature and Treatment of Affections produced by Contagious Diseases," "The Advantages of Ether as an Anæsthetic," and a paper on "Bent Knee, and the Immediate Treatment of Stiff Joints." The name of Dr. Morgan was likewise identified with the revived use of ether as an anæsthetic in these countries.

Composition and Quality of the Metropolitan Waters in February.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	22·23	0·059	0·172	0·001	15·6	4·2
West Middlesex	21·93	0·049	0·157	0·000	15·4	3·8
Southwark & Vauxhall	21·43	0·070	0·170	0·001	15·4	4·0
Chelsea	21·53	0·063	0·165	0·002	15·0	4·0
Lambeth	22·13	0·056	0·163	0·001	15·8	4·2
Other Companies.						
Kent	28·27	0·010	0·409	0·000	20·0	5·7
New River	21·60	0·041	0·174	0·000	15·4	3·9
East London	22·73	0·052	0·176	0·002	16·1	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was very slightly turbid—namely, in those of all the Thames Companies excepting the West Middlesex.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 112,034,444 gallons; and the number of houses supplied was 523,487. This is at the rate of 32·5 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 28·2 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 2:—

Brown, Francis Wheeler, Brompton Hospital.
Young, John, Marlborough House, Leicestershire.

The following gentlemen also on the same day passed their primary professional examination:—

Congreve, George Thomas, King's College.
Crowther, William Harding, King's College.
Lee, Roger, Guy's Hospital.
Richards, Philip Morgan, London Hospital.
Trevan, Fredk. Adolphus, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CAMERON, J. S., M.D., B.Sc. Edin.—Physician to the Huddersfield Infirmary.

FOTHERGILL, J. MILNER, M.D., M.R.C.P.—Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, *vice* W. H. Corfield, M.D., M.R.C.P., resigned.

HAWKINS, ALEX. F., M.R.C.S., L.R.C.P.—Resident Surgical Officer to the General Hospital, Birmingham, *vice* Walter Ottley, M.B., resigned.

NAVAL AND MILITARY APPOINTMENTS.

INDIA OFFICE.—The Queen has been graciously pleased to nominate and appoint Surgeon-General Joseph Fayrer, M.D., C.S.I., Honorary Physician to the Queen, and Physician to his Royal Highness the Prince of Wales, to be Extra Knight Commander of the Most Exalted Order of the Star of India.

BIRTHS.

BROWN.—On March 1, at 1, Bartholomew-road, Kentish Town, the wife of Andrew Brown, L.R.C.P.E., L.R.C.E., of a son.

FENN.—On February 29, at The Old Palace, Richmond, S.W., the wife of Edward L. Fenn, M.D., of a daughter.

HOLLIS.—On March 1, at St. John's-terrace, Brighton, the wife of W. Ainslie Hollis, M.D., of a daughter.

JOUBERT.—On February 5, at Burdwan, Bengal, the wife of C. H. Joubert, M.B. Lond, F.R.C.S. Eng., Civil Surgeon, of a daughter.

SALT.—On March 6, at Egremont, Bournemouth, the wife of Henry Salt, M.D., of a daughter.

SECCOMBE.—On March 6, at Torrington Lodge, King's Lynn, the wife of J. T. Seccombe, M.D., of a daughter.

MARRIAGES.

BOOKLESS—SMEED.—On March 4, at Tunstall, James Pitcairn Bookless, M.D., L.R.C.S., of 12, Mansel-villas, Wimbledon-hill, only son of the late John Bookless, Esq., surgeon, of Kelso, to Ellen Maria, sixth daughter of George Smeed, Esq., of Gore Court, Tunstall, Kent.

CARRUTHERS—JOHNSON.—On February 26, at Holy Trinity, Penge, Edward Vincent, youngest son of the late J. A. Carruthers, M.D., of Padstow, to Emily Louisa, eldest surviving daughter of H. C. Johnson, Esq., of South Penge-park, Surrey.

COLMAN—WATSON.—On February 29, at the Effra-road Chapel, Brixton, Stuart Colman, architect, of Bristol, to Sarah Elizabeth (Saliz), eldest daughter of John Watson, M.D., of West Dulwich.

FREELAND—GILKISON.—On February 28, at Glenhuntly, Port Glasgow, Margaret, fourth daughter of the late David Gilkison, Esq., to John Ellis Freeland, M.D., C.M., late of Hong-Kong.

KERSWELL—AUSTEN.—On March 2, at Trinity Church, West Hampstead, Samuel Kerswell, of Plymouth, to Rosa Esther, widow of the late John Colmar Austen, M.D., of Ramsgate.

STRICKLAND—MCKEVETT.—On March 4, at the parish church, West Ham, Walter Strickland, Esq., to Eliza Emma, daughter of the late Henry McKevett, M.D.

DEATHS.

BRADEN, ETHEL, youngest child of J. G. Braden, M.R.C.S., at Lewes, on February 28, aged 5.

CUTHBERT, ALEX., M.D., at Waterside, Londonderry, on March 1.

EAGER, RICHARD, M.R.C.S.E., at Guildford, Surrey, on March 3, aged 74.

ELLERY, HENRY JAMES, M.D., at Axminster, on February 25, aged 46.

GREENHILL, ADRIANA, the beloved wife of J. R. Greenhill, F.R.C.S. Eng., Royal Artillery, at Bermuda, on February 10, aged 30.

MARCHANT, CHARLES EDWARD, youngest son of the late Francis Marchant, M.D., or Hemsworth, Yorkshire, at Christchurch, New Zealand, on January 7.

MORGAN, JOHN, A.M., M.D., T.C.D., Fellow, Councillor, and Professor of Anatomy in the Royal College of Surgeons, Ireland, at his residence, 23, St. Stephen's-green North, Dublin, on March 4, aged 47.

REID, JAMES STEPHEN, M.D., son of the late James Reid, Esq., of 21, Minto-street, Edinburgh, at Terrara, N.S.W., on December 18, 1875.

SHARP, JAMES NOTT, only son of the late James Sharp, M.R.C.S., of 10, Hobart-place, Grosvenor-gardens, on March 2, aged 32.

STURTON, ANN, the dearly beloved wife of H. W. S. Sturton, M.R.C.S., at 29, Burney-street, Greenwich, on March 2.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BERMONDSEY.—Medical Officer of Health. Applications, with testimonials, at the Vestry Offices, Maltby-street, on or before April 1.

CHRISTCHURCH UNION.—Medical Officer for the Eastern District. Applications, with testimonials and qualifications, to be delivered at the Union Board Room, before twelve o'clock at noon on March 27.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN-SQUARE.—Physician. Applications on or before March 25.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE, W.—Honorary Physician. Candidates must be M.R.C.P. Applications, with testimonials, to Mr. F. Bailey, Secretary.

LEEK UNION.—Medical Officer and Public Vaccinator for the Endon District. Applications on or before March 14.

LINCOLN LUNATIC HOSPITAL.—Resident Medical Superintendent. Candidates must be duly qualified in medicine and surgery. Applications, with testimonials, to the Governors of the Lincoln Lunatic Hospital, under cover to Mr. R. Hall, 38, Silver-street, Lincoln, on or before March 11.

LISKNASKEA UNION.—Medical and Sanitary Officer for the Brooksborough Dispensary. Applications on or before March 21.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY, AND LUNATIC ASYLUM.—Honorary Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before March 25.

NOTTINGHAM DISPENSARY.—Assistant Resident Surgeon (single). Applications on or before March 20.

QUEEN'S COLLEGE, GALWAY.—Professor of Midwifery.

UNIVERSITY OF DURHAM (COLLEGE OF MEDICINE), NEWCASTLE-UPON-TYNE.—Joint Lecturer on Anatomy; Medical Tutor. Applications to the Secretary.

UNIVERSITY OF LONDON.—Eighteen Examiners: two in Chemistry, at £175 per annum each; two in Medicine, at £150 per annum each; two in Surgery, at £150 per annum each; two in Physiology, etc., at £150 per annum each; two in Anatomy, at £100 per annum each; two in Botany, at £75 per annum each; two in Obstetric Medicine, at £75 per annum each; two in Materia Medica, etc., at £75 per annum each; and two in Forensic Medicine, at £50 per annum each. Applications on or before March 28.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY AND FEVER HOSPITAL.—Resident House-Surgeon and Dispenser. Applications on or before March 21.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bridgnorth Union.—The Second District is vacant; area 12,828; population 1433; salary £30 per annum.

Martley Union.—Mr. R. M. Willan has resigned the Leigh District; area 12,328; population 5837; salary £85 per annum.

Tisbury Union.—Mr. H. Young has resigned the Hindon District; area 11,253; population 2577; salary £60 per annum.

Walsingham Union.—The Fakenham District is vacant; area 12,775; population 4564; salary £52 per annum.

APPOINTMENTS.

Bosmere and Claydon Union.—Horatio Bloomfield, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Debenham District.

Lutterworth Union.—Joseph B. Waterhouse, M.R.C.S. Eng., to the Third and Fourth Districts.

Newent Union.—Robert Walter Ceely, M.R.C.S. Eng., L.S.A., to the Redmarley District.

PROFESSOR PARKES, F.R.S.—This gentleman commenced his course of nine lectures "On the Shoulder-Girdle and Fore Limb of Vertebrata," in the Theatre of the College of Surgeons on Monday last.

THE DENTAL HOSPITAL.—The annual dinner of the friends of this excellent institution will take place at St. James's Hall on Thursday next, when Mr. W. S. Savory, F.R.S., will take the chair.

PRIVILEGES OF JAPANESE JOURNALISTS.—A recent decree of the Mikado confers complete freedom of postage to journalists, each of whom is now allowed to send whatever communication he may think fit from one part of the empire to the other, free of expense.

THE *Siberia* states that the Governor-General of Western Siberia has sent an official to Tomsk to select the site for the new Siberian University. The building is expected to be finished in about three years. The study of medicine is to form a special feature in this University.

CREMATION ON THE CONTINENT.—In the cemetery at Milan there is a special erection for burning bodies. In Germany the cremationists have decided to hold an annual meeting at Gotha, where an official sanction by the Government has been given to this system for the disposition of the dead. In Paris a new society has recently been announced, named "The General Association for the Study and Practice of Cremation." The presidency of it has been offered to Victor Hugo.

THE HUNTERIAN CLUB.—The Council of this institution is in search of (amongst other works supposed to be in existence) Samuel Rowland's "Democritus; or, Dr. Merryman, his Medicines against Melancholy Humours" (1607), copies of which were in the White Knights' and other collections.

THE statue of Dr. Stokes, now placed in the Hall of King and Queen's College of Physicians in Ireland, is to be formally unveiled on Thursday, March 16. A very large gathering is anticipated on the interesting occasion; and among others who have promised to attend is Dr. Acland, Regius Professor of Physic at the University of Oxford.

TREATMENT OF MERCURIAL AND SATURNINE TREMOR.—Dr. Noel Guéneau de Mussy prescribes for this pills containing four milligrammes of phosphide of zinc. From two to four are given daily, and the tremor is relieved, and even cured, in forty-eight, thirty-six, or twenty-four hours. This treatment is of no avail in alcoholic tremor.—*Union Méd.*, March 4.

STATE MEDICINE AT CAMBRIDGE.—The next examination for a certificate in State Medicine at Cambridge will commence on June 13. Candidates must send in their applications on or before May 30, to Professor Liveing, Cambridge, to whom all requests for information should be addressed. Any registered medical practitioner who is twenty-four years of age may present himself for examination.

THE INTERNATIONAL MEDICAL CONGRESS.—As agreed upon at the last meeting of this Congress at Brussels, the fifth session is to be held at Geneva during the week commencing September 9, 1877. A committee has been formed at Geneva, consisting of Prof. Vogt, President; Dr. Lombard, Vice-President; General Secretary, Dr. Prévost; Assistant-Secretaries, Drs. Reverdin and D'Espine; and other members, Prof. Mayor, and Drs. Dunant, Figuière, Julliard, and Révilliod. The committee is desirous of receiving communications concerning either the Congress itself or the questions to be brought before it by June 1, 1876, when it will proceed to the determination of the rules and programme for the Congress. Address M. le Dr. Prévost, Geneva.

THE INSANE IN PARIS, 1801-74.—From the commencement of this century to the present time, the branch of the Assistance Publique dealing with the lunatics has had under its care in the Department of the Seine nearly 100,000 insane persons—the admissions from January 1, 1801, to December 31, 1874, amounting to 93,766. In 1801 there were in the asylums but 946 lunatics, and in 1874 there were 7072, the number being thus sextupled. During the first ten years the annual increase of the admissions over the discharges and deaths was 68, and since 1870 it has been 157. Of the 93,766 lunatics admitted, 44,640 were men and 49,126 women. Until 1860 the entries of women were more numerous than those of men, while since that date the reverse has been the case. For entire France the population of the asylums has increased since 1850 by one-fifth, and for Paris alone two-fifths. The greatest number of admissions taking place in any year occurred in 1873—viz., 2748. At the end of 1874 the total number of lunatics was 7072, of which 4184 were women; and of this number 3119 were treated in the asylums of the Department of the Seine, and 3953 were sent to asylums in other departments. During that year there was one new lunatic admitted for every 946 inhabitants of Paris. It is in the spring and in July that the greatest number of admissions take place. The care of the insane cost the Department of the Seine 4,187,028 fr. (£167,480) in 1874, of which sum 2,513,138 fr. were expended upon the five asylums which belong to it—viz., Sainte-Anne, Ville-Evrard, Vaucluse, Bicêtre, and Salpétrière. —*Union Méd.*, February 26.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** We desire to direct the attention of our readers to an advertisement, which appears in our columns this week, about a young American lady, who is, or is believed to be, somewhere near London, but whose residence cannot be discovered by her parents. We are sure that any of our readers who can give any information or help in the matter will readily and promptly do so.

A Donor.—An appeal against the assessment of St. Thomas's Hospital was made to the General Assessment Sessions, regarding a reduction which had been made from a gross value of £13,080 and rateable value of £10,000 to a gross value of £8400 and rateable value of £7000. The Court confirmed the assessment of the overseers, with costs.

The Discoverer of Anæsthesia.—Dr. E. S. Dunster, of the University of Michigan, writes, with reference to a notice of a paper by him "On the History of Anæsthesia," which appeared in the *Medical Times and Gazette* of January 22 last, that although in his conclusions which we published he omitted to refer to the claim of Surgeon-Major Michael Cudmore Furnell to be the first person who administered chloroform anæsthetically, he referred to the evidence in favour of the claim of Surgeon-Major Furnell very fully in another part of the paper.

IRON IN UTERINE HÆMORRHAGE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I send you an account of the following case as confirmatory of the tincture of iron treatment of uterine hæmorrhage.

On February 7, I attended Mrs. N. in her second confinement with a breech presentation. Very shortly after the birth of the child a violent hæmorrhage came on; I then removed the placenta, but the hæmorrhage continued, and I could get no contraction of the uterus. I now introduced several times a sponge saturated with tincture of iron, diluted with four parts of water; this, with cold water externally, at length commanded the hæmorrhage. The patient recovered without a bad symptom.

I am, &c., E. HARTLEY, L.K.Q.C.P.I.

31, Warwick-square, S.W., March 7.

Mr. Malcolm.—We are glad to say that Sir W. Fergusson has only been suffering from a slight cold, and is now perfectly well.

F.R.C.S., Southampton.—The election of members of the Court and Board of Examiners will take place next Thursday. We are not at liberty to mention the name of the gentleman selected and recommended by the Committee for the latter, although it is pretty well known, notwithstanding official *secresy*. Mr. T. B. Curling will, no doubt, and deservedly, be re-elected for the former. We see from the "Calendar" that he was elected a member of the Council in 1864, of the Court of Examiners in 1871, and President in 1873. He has been requested, and has consented, to take the chair at the next festival of the Fellows of the College, on the day of the annual election into the Council.

A VETERINARY WANT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Could you or any of your subscribers give me an idea of some method or agent to remove the hair from cattle or horses, for the purpose of indelible branding, without much pain? The present method of hot iron is extremely cruel, and often dangerous to the beast in casting it. Many a poor groaning bullock would be spared the fire-torture if a good depilatory could be found. South African farmers and Australians would rejoice. For horses, according to colour, the hair would probably grow a different shade if removed by chemicals; that would be as efficient a mark as removal by hot iron.

The Dutch farmers in South Australia expect their medical man to be well informed on most subjects, and so frequently ask me to devise some method instead of the present barbarous one, which pray accept as my apology for intruding the subject upon my own professional journal.

I am, &c., G. CLARENCE HYDE, District Surgeon, Klip River, Natal.

European Medical Practitioners in China.—An educated native of China, in a paper (since translated into English) about Europeans, observes *inter alia*:—"The hospitals are established by the missions, and the foreign physicians pass examinations before they are permitted to practise. They are intimately versed in anatomy, and their treatment of wounds and ulcers is marvellously skilful. There are only one or two in a hundred who are not very well acquainted with the lesser joints, become nervous when operating, and send to other practitioners for advice and assistance. In dealing with outward diseases, they are very fond of using the knife and lancet. They first stupefy the patient with medicine, so that he cannot feel pain, and then perform operations with the knife and saw. If, however, they first paid some attention to the various constitutions of their patients they would not meet with so many mishaps as they now do. I have known four or five cases where death has resulted from amputation of the thigh or operation for goître. They usually treat internal complaints with opening medicines and emetics; but in my opinion too strong doses are given. Where, however, they most signally fail is in cases of low fever and the convulsions of children, when they lose very many of their patients. This is the result of the diet they order being unsuited to the nature of the disease. What, however, our countrymen take the gravest exception to is the immodest employment of male practitioners in midwifery cases. They are not at all aware that this is the immediate result of the high esteem in which slender waists are held among Europeans, and the consequent tight bandaging—a custom which, like the tying up of the feet of our own countrywomen, has come down from the times of remote antiquity. Foreign physicians are ever hunting after and gaining possession of the dead bodies of young children, for the purpose of finding out the causes of their deaths by dissection." The few Chinese who are acquainted with foreign usages know dissection is performed for the sake of learning only, but even they are inexpressibly shocked, for, as they naturally say, "What fearful crimes can these dead have committed, that they should thus be cut to pieces—a punishment more barbarous than our extreme penalty of death by laceration?" But the great bulk of the population believe that the hearts, brains, livers, and eyes from dead bodies are extracted to mix with their medicines, and angrily circulate tales to the effect that the foreigners kidnap children by means of stupefacient medicines, throwing what is left of their bodies into the surgery buckets, where they are dissolved or otherwise made away with.

COMMUNICATIONS have been received from—

The Registrar of the King and Queen's College of Physicians in Ireland; Dr. Arkovyp, Budapest; Mr. Hussey, Oxford; Messrs. Colk and Williams, London; The Secretary of the Medical Microscopical Society, London; Lex, London; Dr. Brakenridge, Edinburgh; Dr. Hartley, London; The Registrar-General, Edinburgh; Our Dublin Correspondent; Mr. Mosse, London; Mr. B. R. Wheatley, London; Dr. C. Theodore Williams, London; Dr. Bruce, London; Mr. Henry Morris, London; Mr. Hugh Richard Ker, Staffordshire; Mr. Jonathan Hutchinson, London; Mr. C. J. Cullingworth, Manchester; Mr. J. Chatto, London; Mr. George Brown, London; Dr. Francis Ogston, Aberdeen; Dr. Buchanan, Glasgow.

BOOKS AND PAMPHLETS RECEIVED—

Smith's Diseases of Infancy and Children, third edition—Parry on Extra-Uterine Pregnancy—Schützenberger on Fermentation—Sewill's Dental Anatomy and Surgery—Demme's Nutzen und Schaden—Report of the General Purposes Committee on Prison Charities—Turner's Lectures on Comparative Anatomy of the Placenta

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Sanitary Journal of Scotland—Monthly Microscopical Journal—Veterinarian—Canada Medical and Surgical Journal—New Orleans Medical and Surgical Journal—Archives Général de Médecine—Journal of the Scottish Meteorological Society—Nordiskt Medicinskt Arkiv—Hastings and St. Leonard's News.

APPOINTMENTS FOR THE WEEK.

March 11. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On the Human Senses."

13. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. William Adams will deliver his Presidential Address. Mr. Walter Coulson, "On Lithotomy and Lithotrity."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—4. Shoulder-Girdle, Fore Limb, and Sternum of Amphibia."

14. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Douglas Powell, "On some Effects of Lung Elasticity in Health and Disease."

15. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Meteorological Society (25, Great George-street, Westminster), 7 p.m. Meeting.

Royal College of Physicians, 5 p.m. Gulstonian Lectures—Dr. Shepherd, "On the Natural History of Pulmonary Consumption."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—5. Shoulder-Girdle, Fore Limb, and Sternum of Reptiles."

16. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Dr. Milner Fothergill, "On Neurosal Affections of the Heart."

Royal Institution, 3 p.m. Mr. William Spottiswoode, "On Polarised Light."

17. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Medical Microscopical Society, 8 p.m. Dr. W. B. Woodman, "Hints on the Systematic Study of Histology."

Royal College of Physicians, 5 p.m. Gulstonian Lectures—Dr. Shepherd, "On the Natural History of Pulmonary Consumption."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—6. Shoulder-Girdle, Fore Limb, and Sternum of Birds."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Sir Henry Sumner Maine, "The State of Feudal Property in England and France on the Eve of the First French Revolution."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 4, 1876.

BIRTHS.

Births of Boys, 1268; Girls, 1236; Total, 2504.
Average of 10 corresponding years 1866-75, 2305·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	770	774	1544
Average of the ten years 1866-75	789·8	763·0	1552·8
Average corrected to increased population ...	...	...	1661
Deaths of people aged 80 and upwards ...	...	...	50

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	1	12	11	3	8	...	2	1	2
North... ...	751729	...	15	8	...	24	1	4	...	5
Central ...	334369	...	7	1	1	4	1	1	...	...
East	639111	...	3	10	1	21	...	1	2	1
South... ...	967692	...	20	15	2	23	2	2	2	10
Total	3254260	1	57	45	7	80	4	10	5	18

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·537 in.
Mean temperature	47·3°
Highest point of thermometer	58·2°
Lowest point of thermometer	37·7°
Mean dew-point temperature	42·9°
General direction of wind	S.W.
Whole amount of rain in the week...	0·58 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 4, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Mar. 4.	Deaths Registered during the week ending Mar. 4.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2504	1544	58·2	37·7	47·3	8·50	0·58	1·47
Brighton	100632	42·7	52	35	51·0	38·4	45·5	7·50	0·95	2·41
Portsmouth ...	124867	27·8	77	60	...	...	...	...	...	...
Norwich	83430	11·2	57	36	58·0	39·5	46·4	8·00	0·88	2·24
Plymouth	72230	51·8	46	42	55·5	42·0	49·0	9·44	0·93	2·36
Bristol	199539	44·8	132	90	55·5	39·9	47·5	8·61	1·01	2·57
Wolverhampton ...	72549	21·4	51	32	57·0	37·3	46·2	7·89	0·31	0·79
Birmingham ...	371839	44·3	353	156	58·0	33·5	46·5	8·06	0·80	2·03
Leicester	113581	35·5	123	43	59·0	37·5	46·5	8·06	0·21	0·53
Nottingham ...	93627	46·9	69	49	57·9	35·3	47·0	8·33	0·52	1·32
Liverpool	521544	100·1	465	312	56·2	38·0	46·3	7·95	0·47	1·19
Manchester ...	357917	83·4	307	215	...	...	...	...	...	...
Salford	138425	26·8	147	84	56·5	34·2	45·7	7·61	0·90	2·29
Oldham	88609	19·0	84	47	...	...	...	...	...	...
Bradford	173723	24·1	156	81	55·0	39·0	46·6	8·12	0·78	1·98
Leeds	291580	13·5	264	136	57·0	39·0	47·4	8·55	0·54	1·37
Sheffield	274914	14·0	220	121	57·8	33·0	47·1	8·39	0·58	1·47
Hull	136933	37·7	129	62	57·0	38·0	45·4	7·44	0·47	1·19
Sunderland ...	108343	32·8	84	41	59 0	37·0	45·4	7·44	0·63	1·60
Newcastle-on-Tyne	139929	26·1	121	54	54·0	33·0	42·4	5·78	0·71	1·80
Edinburgh	215146	51·3	149	104	54·0	33·5	43·2	6·22	...	...
Glasgow	545144	90·4	419	357	...	...	...	...	...	...
Dublin	314666	31·3	193	233	59·3	36·3	47·7	8·72	0·61	1·55
Total of 23 Towns in United Kingdm	8028595	37·7	6202	3934	59·3	33·0	46·2	7·89	0·66	1·68

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·54 in. The highest was 29·71 in. on Monday evening, and the lowest 29·19 in. at the beginning of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF
MULTIPLE SYPHILITIC PARALYSIS.
DELIVERED AT KING'S COLLEGE HOSPITAL.

By ALFRED B. DUFFIN, M.D., F.R.C.P.

Gentlemen,—During the last four months you have had under observation a marked example of the nervous lesions incidental to the advanced or so-called tertiary stage of syphilis. You have noted from what grave indirect affections it is possible for nerve-substance to recover; and you also have seen the wonderful power exercised by iodide of potassium over the later syphilitic manifestations.

The man W. R., whose case I propose to discuss with you, is thirty-three years of age. Now, you will find that by far the larger proportion of these syphilitic nerve-affections occur between thirty and forty-five years of age, with an average of about thirty-eight years each. They are, then, essentially accidents of middle life.

The patient was affected with primary symptoms ten years ago. Two years and a half subsequently he had ulceration of the tongue; but this is the only secondary manifestation of which he is aware. He has been married seven years, and has three healthy children; there is no reason to think that his wife has suffered from any venereal taint. Nevertheless, ten years from the original chancre he rapidly developes tertiary manifestations of the most formidable kind. This man's history, then, would show that the scanty evidences of secondary disease had completely passed away within the first three years, and, moreover, that after that period he had lost the power of transmitting the infection by direct inoculation to his wife, or by the semen to his offspring. The earlier attacks, then, were very slight. I believe it to be a common observation that in the large majority of cases of late nervous affection the early secondary signs have been scanty and transient. It is even more interesting to note that the wife and children entirely escaped the infection, as it is generally believed that a man will procreate syphilised children during the whole of the secondary epoch. What, then, can we suppose the syphilitic poison to have been about during these intervening seven years? You have often heard me argue that, even in the secondary stages, visceral lesions are probably more common than is usually admitted. You have heard me express my belief that the successive eruptions of that stage may be referred to successive blood-infections from lymphatic or visceral foci. I have shown you, again and again, that glandular enlargements are to be discovered up to the latest period of the secondary stage. In the strict sense I do not regard syphilis as a blood disease; we have always local centres of infection. The blood may, indeed, be contaminated more or less continuously, but, representing as it does the sum of all change, it constantly tends to depurate itself. The circulation may be the highway of infection, but cannot strictly be considered as its source. As time goes on, the patient becomes acclimatised to the syphilitic poison. Its specific evidences cease after a while to grow so actively, are less ready to re-infect the blood; thus, after a while, the disease dies down. In this tendency to run a given although a protracted course, syphilis has been long justly compared to the specific fevers. But the growths that have thus gradually become quiescent, and whose vitality may have been modified by treatment, need not on that account to disappear. These residues of the syphilitic process may, under favourable circumstances, again start into activity. Although they may have lost the faculty of blood-infection, they may themselves grow to a great size. They may consequently, by their pressure or irritative effects, induce the most formidable disturbances in the organs in which they may happen to be seated.

For some three or four months prior to his earliest nervous lesion, the man W. R. seems to have suffered from excessive diuresis. He was informed that he was the subject of diabetes insipidus. Whatever this was, it seems to have shaken his general health, and he went to Dover to recruit. While there he found that his face became drawn to the right side, and that his food caught between the left cheek and the alveolar arch. Early in August, 1874, he came to town, and was pronounced to have paralysis of the left side of his face. This sign remained solitary till March, 1875, when he experienced difficulty in bending his head forward, and his neck felt stiff. He, at the same time, found that the movements of the left arm became awkward and feeble. A few weeks further on—namely, early in April—shooting pains and formication in the lower half of the abdomen set in. He began to suffer severely from backache in the mid-dorsal region. A month later (May) numbness supervened in the right leg, and in a few days the same was noticed in the left. Loss of muscular power rapidly succeeded, and by the end of the month both legs were quite paralysed. Simultaneously he lost the power to empty his bladder and rectum. I insist especially on the sequence of these symptoms. An affection of sensation of particular nerves of the abdomen, followed by modified sensibility of the lower limbs, and accompanied by intense localised backache, preceded all signs of motor paralysis. Had we not had the assistance of other nerve affections in interpreting the paraplegia, this order of events, and the time that they occupied (one month), would have gone far to indicate the diagnosis of some tumour of the spinal canal. Shortly after this his right eyelid drooped and permanently closed that eye.

The man was admitted June 22, 1875. The paralysis of the left face had lasted eleven months, the power of nutation had been impaired about four months, the ileo-inguinal nerves had been implicated about two months and a half, the paraplegia had lasted six weeks, and the right third nerve had been involved about three weeks.

Let us look a little more closely at his paraplegia. Tactile sensation was quite lost in both legs, except slight sensibility on the inside of the right thigh along the track of the genito-crural nerve. Over the scrotum and hypogastrium generally sensation was greatly blunted. No sense of girthing was experienced, but an almost constant feeling of hypogastric pressure and of epigastric fulness. He could barely perceive the difference between hot and cold spoons when applied to the right foot. Voluntary motion of the lower limbs was absolutely lost, and reflex action was almost totally deficient. The muscles were flabby and wasted. He had lost all control over both rectum and bladder; the urine was ammoniacal, and presented all the ordinary signs of severe vesical catarrh. He suffered excruciating nocturnal pain and tenderness from the sixth to the eleventh dorsal vertebra—that is, over the lumbar plexus and a little above it. He presented the ordinary characters of complete paralysis of the third nerve: with these you are all familiar. We further found, however, that not only did he see double, but that the right image was an oblique one. His almost complete inability to look downwards or upwards precluded our determining whether the oblique and erect images converged or diverged with varying movements of the orbits. The test of the existence of staggering could also, for obvious reasons, not be applied; still, I think it probable that the lesion involving his third nerve had also entangled his fourth.

The paralysis of the left seventh was complete as regards its distribution to the facial muscles, but we were at first somewhat surprised to find that the palate was not in any way implicated. As he lay symmetrically in bed, his left shoulder was noticed to drop considerably, and his left sterno-mastoid and trapezius muscles were found greatly wasted. This led to a more close examination of the movements of the head, upper thorax, and left shoulder. Rotation of the cranium was performed normally, as also limited flexion of the head forward. Extreme flexion required great effort, and the right side of the chin was brought down lowest. The reason of this is that in limited flexion the head is simply allowed to fall forward by its own weight, being no longer sustained by the splenius and other muscles passing from the cervical vertebræ to the base of the occiput. When these are relaxed, the head falls a certain way forward by its own gravity. Beyond that, the work of positive flexion is performed by the two sterno-mastoids. One alone will suffice to induce a considerable degree of flexion, but it brings down the ramus of its own half of the lower jaw lower than that of the opposite side; in other words, it rotates the head through a very small angle. When our patient was directed to rotate his head towards the right acromion, and then to flex it, we found that the movement which belongs exclusively to the left sterno-mastoid could not be performed. If, on the other hand, he rotated the head towards the left acromion, and then flexed it, the movement was performed perfectly. Again, with the face directed forwards, he was desired to adduct the head towards the right and left

shoulders respectively. He could bring the head to within two inches of the right shoulder, but not within some eight inches of the left one.(a) If the fingers were introduced between the sterno-mastoid and trapezius during forced inspiration, the scaleni could be felt to act and the thorax was raised quite evenly. Next as regards the scapula. The left shoulder lay a good inch lower than the right one. He could only very faintly shrug the left shoulder, this faint shrug being, probably, attributable to the action of the levator anguli scapulæ. The whole scapula lay too far forwards, its posterior border being some three-quarters of an inch further from the spinal column than that of the right one. That the gap between the vertebræ and the scapula was no greater I attribute to the continued support of the levator anguli and of the rhomboids. When, however, the arms were adducted, the relative positions of the two scapulæ were greatly altered, the left being thrown two inches and a half more forward than the right. The left scapula was in all positions much "winged," the posterior edge being unusually prominent. To a superficial observer it would, in this respect, present some analogy to what is seen in paralysis of the serratus magnus. Error could, however, be at once avoided by noticing that the shoulder lay lower than the opposite one, that the gap between it and the spine was greater, that the superior border of the scapula was not prominent in the posterior triangle, that the ribs on the affected side were not bulged, and especially that, in spite of the great lowering of the shoulder-joint, the man could touch his parietal bone readily. In all these respects paralysis of the trapezius contrasts forcibly with paralysis of the serratus magnus; indeed, these muscles are antagonists, and only agree in fixing their common point of insertion, the posterior edge of the scapula, against the wall of the thorax. When either is enfeebled we get "winging."

Such being the lesions presented in this case, let us next fix the probable points of nerve-pressure. That for the right third and fourth nerves is readily assigned to the upper portion of the cavernous sinus, far forwards; but the absence of any affection of the orbital branch of the fifth shows that it must have been before the nerves approached the external rectus. That for pressure on the left seventh was more difficult to fix, inasmuch as the palatine branches had escaped. We must read this in conjunction with the paralysis of the spinal accessory. A glimpse at the base of a skull will at once show that a node on the jugular eminence could readily involve both nerves as they issue from the stylo-mastoid and lacerated foramina respectively. The intense localised backache, and the implication of the ileo-inguinal and hypogastric nerves, give a very fair clue to the part of the spinal cord involved. How very extensive the mischief affecting the latter must have been is evidenced by the almost complete absence of reflex action in combination with all the other signs of tumour-pressure.

The *treatment* adopted was the free exhibition of iodide of potassium, starting with fifteen-grain doses, and increasing whenever the slightest sign of failure in the amendment took place. At one time the man took as much as 200 grains daily. This was combined with benzoate of ammonia, with the view to acidify the urine by the formation of hippuric acid, and with varying doses of cinchona. The bladder was also carefully emptied and washed out with acidulated water. The muscular nutrition was also maintained by means of galvanism.

Course: Within a week the pain and tenderness of the spine had disappeared. On the sixteenth day it was found that he could raise his right eyelid slightly, and that the pupils were equal. In another week the external squint passed off, and the diplopia ceased. His urine had now been rendered acid. Early in the fourth week sensation was found to be returning in the lower extremities equally. Reflex action was decided; he was beginning to flex his ankles. It was also found that he could close the left eyelid completely. On the thirtieth day the progress of the case was marred by the discovery of a large, deep bedsore over the centre of the sacrum. This was treated with nitric acid poultices and charcoal, in the manner with which you are familiar. The slough came out, and the sore did well. By the seventh week reflex action had become normal in the lower limbs, and both sensation and motility were improving rapidly. The scapular movements and those of the left side of the face were also returning. Not to weary you with further details, all the paralyses presented in this case gradually wore off, and after a four months' residence in the hospital, the patient was able to walk a couple of miles with the assistance of a stick. You will ask me, Is he absolutely cured? My experience of such cases, unfortunately, is that, for the most part, however good our immediate results, there is a strong tendency to relapse sooner or later. Can we beat this back by the continued use of iodide of potassium? This I cannot answer; at any rate, we will try.

(a) The value of these observations on loss of function from paralysis of one sterno-mastoid will be obvious if we consider the converse—the anatomy of pure torticollis. In this a compound of the three positions indicated in the text will be found to obtain. In torticollis from irritation of the spinal accessory, where the trapezius is also involved, the head is usually drawn backwards also, and the chin thrown up, yet with a semi-rotation of the head towards the opposite side, with lowering of the ramus of the jaw on the same side, and with the scapula somewhat raised.

ORIGINAL COMMUNICATIONS.

ON THE

THERMAL CHANGES IN EPILEPSY AND THE EPILEPTIC STATUS.

By W. BEVAN LEWIS, L.R.C.P. Lond.,
Pathologist and Assistant Medical Officer to the West Riding Asylum.

(*Concluded from page* 277.)

It would be unwise to the fullest extent, with our present knowledge of the chemical statics of the brain, to draw many deductions as to its dynamics, yet we may rest assured that, with the advance of knowledge, we shall be more and more impressed with the conviction that the phenomena of mind and nervous action generally involve but forces mutually correlated with the more familiar physical forces of the universe around. In morbidly exaggerated activity of the cerebral functions, therefore, such as is exhibited in the convulsive seizures of epilepsy, general paralysis, and hysteria, I think it well to bear in mind that, if with Dr. Hughlings-Jackson we regard the discharging lesion as subject to excessive nutritive activity, deriving its pabulum from more unstable elements than in the normal condition, we must also allow that the resulting evolutions may include forces differing in *kind* as well as *quantity*. In this way would I seek to explain the notable rise in temperature after the epileptiform seizures of general paralysis, which has been alluded to frequently by Clouston, and which is a matter of constant observation in the wards of the West Riding Asylum: undoubtedly I believe it to be a running off of nervous energy of a low type. I say of a *low type*, for just as the libero-motor energy is brought within the control of the higher mental processes and the volition, so the flow of heat is entirely removed from volitional jurisdiction; and hence the thermal phenomena exhibited in epilepsy correspond with the "reductions in automatism" of its motor phenomena, which have been so long insisted upon by Dr. Hughlings-Jackson. From loss of consciousness (the least automatic of all the cerebral functions), through those complicated movements requiring the agency of highly co-ordinated groups of muscles, we descend to the lowest plane of mental action in the stertor and coma of epilepsy—the most automatic of all those actions witnessed in the "motor side of the soul-life," as Griesinger expresses it. A highly integrated condition of mind is but the sequence of a complex, highly integrated cortex. If we follow the evolution of mind from the lower grades of animal life up to the complex organised mind of man, we but increase and render more extensive the correspondence between inner and outer relationships.(a) The heterogeneity of internal structure and environment becomes so great, and their correspondences so complicated, that, along with the multitudinous changes which may be thus rung out along this mysterious network, there must also be involved a corresponding instability—a tendency to falling out of gear. To say the least, the more automatic functions are the basis of the more complicated mental processes, and hence the higher and more heterogeneous the latter become, the further is the remove from the more automatic substrata, and the less dependent do they become for support upon them. This, of itself, would involve their stability, for necessarily must the higher and more complex differentiations of structure be stamped with frailty and changeableness as they recede from the more simple stable and

(a) "Principles of Psychology": part 3—Mental Synthesis. Herbert Spencer.

automatic processes. So intimate does the correspondence become between inner and outer relationships, that it can be no source of wonder if, amidst the vast and multitudinous changes which must occur in the complex arrangement of the environment, we witness numerous reactionary changes and the same liability to change in the human mind. Its highest processes are evolved from an organisation necessarily subject, as we have seen, to an unstable equilibrium from the very nature of its structure and evolution; and thus we may deduce logically what Dr. Hughlings-Jackson's clinical studies have taught us,—that the discharging lesions of epilepsy would naturally affect the higher and less stable processes of the mind first, and that the least automatic would be the last to succumb to their explosive tension. It will naturally occur to the reader that the elevations in temperature were due to paresis of the sympathetic system, even though the unconsciousness is universally admitted to be due to contraction of the cerebral vessels from an *irritated* vaso-motor system. Now, I freely admit that there is strong evidence afforded us in all cases of epilepsy of a disturbed, unstable condition in the equilibrium of this great system of nerves; but when I state that the elevation of temperature remained persistent long after subsidence of vaso-motor disturbances, and was present on many occasions prior to the convulsive seizure, and before there was any appreciable sympathetic disturbance, I have said sufficient to disprove this point. The great vaso-motor system, which appears to exercise so powerful an influence over the calibre of the blood-vessels, exerts thereby a regulative authority over the temperature of the part, and these modifications in arterial tension and temperature may be manifested locally and to a very limited area, or assume unilateral or bilateral deviations, varying with the extent to which the vaso-motor centres are involved. In Bernard's experiment on section of the cervical sympathetic, it will be remembered that the elevated temperature remained persistent, whilst the congestive results had subsided in a few days succeeding the operation; and it may thus be fairly assumed, I believe, that more active tissue-change was proceeding in the part suffering from sympathetic paresis, even though unaccompanied by apparent congestion. This, I repeat, is a fair assumption, and the one which most naturally occurs to the mind; but that it does not answer all difficulties involved in this question will be at once apparent from the following considerations. On several occasions, having removed the left upper cervical ganglia of the sympathetic in a rabbit with the usual results —viz., injection of the vessels of the head, ear, and neck, a contracted pupil from unresisted action of its circular fibres, various secretory derangements, and marked elevation of temperature,—it was also noticed that when repeated observations of the temperature were made for several consecutive hours, constant oscillations occurred between the two sides of the body. The temperature of the side operated on would frequently fall, but with this an elevation of the temperature of the sound side invariably occurred. Such a condition has been noticed before on galvanising the extremity of the severed nerve, and evidently points to a peculiar associated action between the ganglionic cords of either side of the body. This peculiar action deserves more attention paid to it than has up to the present time been accorded to it in explanation of the phenomena accompanying this operation, and I call the reader's notice to it, more especially because an associated action of the two sympathetic cords is constantly observed in cases of epilepsy.

Referring once again to the case of E. C., let us inquire to what extent disturbances of the sympathetic system displayed themselves. For some hours prior to an attack there were not only decided elevation of temperature, frequent flushes of the face, and marked injection of the conjunctival vessels, but a want of correspondence between these symptoms on both sides of the body: so that these unilateral deviations gave strong presumptive evidence of a disturbed balance in the vaso-motor centres. Diminished muscular power was at this period always noticed by the patient on the side of augmented vascular action. The variations in muscular irritability were highly interesting; thus, on careful application of the electrodes of a Stöhrer's induction-machine, it was constantly observed that (at this period) on the side of lowest temperature and lessened vascular supply the electro-muscular irritability was increased, and presumably the electric tension diminished. From the phenomena of voltaic alternatives we have learnt to regard an augmented *electric tension* of nerve or muscle as constantly associated with diminished or even suspended *irritability*, or the converse. On careful examination of our patient just prior to her attacks these alternations of augmented and diminished electric tension were found invariably to correspond with increase and diminution of the blood-current respectively. Again, in the early part of the interparoxysmal period the electro-muscular excitability of both sides was frequently and carefully gauged: the condition of lateral deviations was entirely changed; the muscular irritability was alike for each individual muscle tested on both sides; and this was of course in accordance with an equable temperature. When, however, a comparative investigation into the actual irritability of her muscles and those of persons in perfect health around her was undertaken, it became obvious that the epileptic was left in a condition of much higher muscular excitability, a very weak current from the primary coil sufficing to produce contraction. The essential features, therefore, to be remembered are, that immediately before and after an epileptic seizure the conditions of the vaso-motor system, and consequently the electric tension of the muscular system, are entirely reversed: the discharge apparently at once sets the more natural conditions afloat, the cerebro-spinal centres once more supplying the vaso-motor with an equable and normal amount of stimulus. Yet I wish it distinctly to be understood that these disturbed states of the vaso-motor centres did not appear until just prior to the onset of an epileptic seizure, so that the gradual and prolonged rise of temperature preceding the seizure by several days indicates, to my mind, but the "charging" of the brain-cells by the accumulation of unstable elementary constituents, and the consequent outflow of cerebral energy of a low type. The mechanical equivalent of brain-work—of such work, I mean, as the incessant demand for vascular tonus and muscular tonus requires, together with the flow of energy necessitated for the accomplishment of any individual muscular contraction, involving as it does such incessant oxidation and disintegration of its vesicular structure,—must be one of no mean value. It is true that much of this disintegration may result *directly* in heat which is not to be at once employed in the mechanical work above alluded to; and it is equally probable that it is so closely correlated to the higher manifestations of nervous activity that the diminution of the latter may account for the augmentation of the heat-discharge. Indeed, so constantly do I see increased temperature associated with conditions of depression of those forces which induce the polarity of the nervous system (issuing in the volitional, ideo-motor, consensual, or the mere automatic muscular acts, as well as the vast amount of work expressed by vaso-motor activity), that I do not hesitate in these conditions to refer the crescendo scale of thermal energy to the outflow of a low type of nerve-force.

In the case of E. C. the outflow of this low form of nerve-force commenced fully a week or even nine days prior to the onset of the attack, marking the increased nutritive activity and metamorphosis of the cineritious substance; and no evidence was afforded of sympathetic paresis until shortly before the attack, during which period oscillations of temperature of a marked character were noticeable, together with lateral deviations. Each attack was ushered in by a distinct elevation of temperature—in other words, a discharge of heat invariably preceded the motor discharge; and this elevation of temperature appeared to me as an effort on the part of nature to relieve the motor centres of the explosive accumulation of potential energy by this flowing-off of heat; and failing to do so, a discharge of libero-motor energy takes place, and the balance is once more re-established. The temperature now falls rapidly to the normal standard, and often 0·8° below it; but where the fits succeed each other rapidly, as might be expected, the fall of temperature is slight, or not at all observed. This is particularly well marked in the case of J. B.

The question now occurs whether the arrest of the convulsive seizure modifies in any way the liberation of heat. I believe the case in point affords a most conclusive reply to this query. Chloral invariably sufficed to arrest an approaching attack, or, if administered in sufficiently large doses, would ward off two or even three expected seizures. The phenomena were most marked and instructive. The first effect was the production of drowsiness, the patient usually falling asleep prior to the time when the fit was due. At this period, however, there was a notable elevation of temperature, which proceeded

as far as the height reached at the acme of a convulsive attack on several occasions. Considering the usual physiological action of chloral and the lowering of temperature which it induces, I regard this point as possessing peculiar interest. There was every evidence that at this period of elevated temperature the discharging lesion was relieving itself by means of heat: there was much restlessness at times during the sleep; and on a few occasions, when a *small* dose of chloral had been given, there was enacted a portion of the usual attack on a very small and feeble scale throughout the sleep. Another noteworthy fact was that the fall of temperature after chloral had arrested the convulsion was extremely slow, and prolonged far beyond what it was when the convulsions had not been interfered with. In the latter case the normal temperature was reached in twenty minutes or even sooner; in the former instance the fall was often protracted through a period of an hour or even more. Thus it seems that the administration of chloral, whilst arresting the motor manifestations of the discharging foci, allowed the disintegration of unstable constituents to evolve their latent energy as a protracted discharge of heat.

In the case of J. B., also, the administration of chloral apparently influenced the bilateral distribution of heat, probably through the associated action of the sympathetic cords alluded to above. Thus, from 6.10 p.m. to 12.15 a.m. the convulsive attacks followed each other in such rapid succession that no fall in temperature occurred, and the convulsions being entirely limited to the left side of the body, the continuous discharge of heat was alone noticed on this side. About this time the chloral began to affect him, the fits becoming far more feeble and the intervals longer, and then it was seen that a fall of temperature on the left side corresponded to a rise in the opposite axilla; and this oscillation occurred until the temperature was equalised on both sides. In several cases which have occurred, and have been under my observation, it appeared to me that chloral had the effect of re-establishing the normal action of the vaso-motor system when its equilibrium was disturbed.

The conclusions, therefore, which these cases warrant me in drawing may be thus summarised:—

1. That the abnormal, exaggerated nutritive activity manifested in the "charging" of the motor cells with unstable constituents is indicated for a protracted period before the seizure by a constant but gradual elevation of temperature.

2. That this overflow of nerve-energy of a low type reaches its maximum just prior to the attack.

3. That strongly marked indications of vaso-motor paresis ensue when the explosive tension has nearly reached its height.

4. That the convulsion re-establishes both the equilibrium of the disturbed vaso-motor centres, and allows the heat-discharge which was established in the prodromal stage to subside.

5. That the action of chloral, whilst paralysing the motor centres, allows, by the prolonged outflow of heat, for the escape of stored-up nerve-energy.

DELIRIUM TREMENS TREATED BY LARGE DOSES OF MORPHIA.

By ARTHUR LEARED, M.D., F.R.C.P.,
Senior Physician to the Great Northern Hospital.

A COMMUNICATION, by Mr. Edward Nicholson, to the *Medical Times and Gazette* of March 10, on the subject of the successful treatment of delirium tremens by large doses of morphia, brings to mind a case treated some time since with this remedy by myself. The following is an abstract of notes made at the time:—

A ship's steward, aged thirty years, was admitted in a state of incoherence into the Great Northern Hospital. It was ascertained that he had landed from India only three days, and that he drank rum very freely during the voyage. It was further stated that this was at least the fourth attack of the kind from which he had suffered in the previous six years. He was very violent during the first night after admission, and, in spite of tinct. opii ʒij. in a draught of porter, was entirely sleepless.

On the second day after admission, tincture of digitalis was given to the extent of six drachms; a grain of morphia was also injected into his arm.

On the third day the patient had for the third time in succession passed a perfectly sleepless night. Six drachms of tincture of digitalis were again given in two doses without benefit. Although the patient was restrained by the strait-waistcoat, his muscular efforts were incessant, and he talked almost without any intermission. As he obstinately refused food, spitting out anything put into his mouth, it became evident that, unless some change soon occurred, death from exhaustion would ensue. I therefore resolved to administer morphia subcutaneously in a large dose, and, that failing to take effect, to repeat it until sleep was induced. At 10 p.m. two and one-third grains of morphia were thrown into his leg, but no perceptible effect was produced. The same quantity was therefore again injected as before, and at 2 a.m. I had the satisfaction of seeing the patient fall into a quiet sleep, from which he awoke at 10 a.m. He then drank some milk, which was immediately vomited, and, having again gone to sleep, did not awake until late in the afternoon. He was now tranquil and quite rational. Some irritability of the stomach continued for a few days, but recovery was rapid and satisfactory.

In this case one was driven to decisive measures by a conviction that nothing less could save life. The inutility of digitalis and of moderate doses of opiates in this instance was clearly proved. Eight grains of morphia within four hours was the extreme quantity given by the mouth by Mr. Nicholson. Five grains were administered subcutaneously in my case within a less period; and taking into account the greater activity of the drug when so used, this quantity was probably equivalent to more than eight grains taken into the stomach. In the present case no choice existed between the two methods, as the patient could not be induced to swallow. But in any case, on account of the greater rapidity of action of the remedy when injected into the cellular tissue, I should give the preference to this mode of administration.

ON THE

TREATMENT OF CHRONIC ECZEMA BY GLYCEROLE OF SUBACETATE OF LEAD.

By BALMANNO SQUIRE, M.B. Lond.,
Surgeon to the British Hospital for Diseases of the Skin.

ANYONE who ventures on uttering any general direction for the treatment of eczema embarks on rather a wide sea. I need not apologise, therefore, although the direction I have to describe is a very simple one, for entering into some explanation of why it should probably be a useful, and equally of why it should probably be, at the least, not a harmful one. My reasons for this detail are two. In the first place, I have fully ascertained, to my own complete satisfaction, that the remedy I advocate is serviceable, and generally preferable to the remedies commonly employed; and to this, of course, I have to add that the remedy in the shape I recommend it is new—that is to say, so far as I know, it has never been employed in a methodical manner, with a view to testing its general value; indeed, as I believe, it has never been tried at all. In the second place, the advocacy of such a plan of treatment as the one I advise is heterodox to general professional belief, not only as to the probability of its doing any real good of itself, but also as to the likehood of its ending in anything else than positive harm.

For example, it is widely believed that chronic eczema, inasmuch as it is a "blood disorder," must necessarily be healed by some internal means—that is to say, by some remedy taken by the mouth and so conveyed to the intestinal canal, whence it may be diffused throughout the tissues generally, and so produce some "alterative change"; or (for ideas on this matter, though firmly rooted in the general belief, are nevertheless wanting in definiteness) that the remedy should, by acting on the secretions—preferably the alvine or sudatory secretions—purge out some *materies morbi*, which may be the accredited cause; or again, that some specific—arsenic for preference, or even mercury, or antimony, or a good many others—should serve as a specific antidote to the disease. The always confessedly unknown special cause of eczema is orthodoxically regarded as something which it is one's duty either to neutralise or destroy within the body by means of some antidote, or to remove in a state of incorporation with some visible and tangible secretion of the body, which has to be augmented in quantity, so that it may serve that purpose. Those who, imbued with such con-

victions, are nevertheless more definite in their belief than the majority, have cherished the conviction that some one of the more familiar dyscrasiæ is at the root of the matter: thus, "gouty eczema" is a disease which is established in nosology; so, again, "scrofulous eczema" may often be heard of. But I refer to these theories only in so far as they affect the treatment I recommend; and I do so, not for the present in any way to dispute them, but only that I may meet them with a sweeping assumption as to their bearing on *chronic* eczema—an assumption which I put forth as one that clinical experience, so far as I can interpret it, has originated in my mind—namely, that whatever may be the original cause (the *fons et origo*) of eczema, and whether that cause be but one or many, such cause or causes are not, so far as I can learn, continuous and incessant during the whole period of a long chronic attack of the disease. I believe, in short, that, after a certain comparatively brief duration of the disease, *that* original cause, whatever it may be, ceases to operate; and that after that time, whatever may be the precise proper limit to assign to it, the disease is perpetuated by an acquired condition or habit of the integument, which is a second nature, and on which alone, in the majority of cases, the chronicity of the disease depends. To borrow examples (which, like all examples, are only very imperfect parallels) from other departments of medicine—and here I speak, of course, only under correction,—I believe it is an established fact in ophthalmic surgery that the extreme chronicity, from one point of view, of "rheumatic iritis," that is to say, its proneness to relapse at comparatively short intervals, lies in the fact that in such cases it has never been completely cured; in short, that a second, perverted, nature has become established. The high degree of development that this, the most advanced of the special departments of medicine, has achieved, enables us to explain that fact in something like detail, and it comes out now that this kind of chronicity of the disease is not owing to any continuous rheumatic disposition of the patient which has been constantly displaying itself by an attack of inflammation of the eye each time that that lesion becomes pronounced, but because the first attack in such cases has left behind it the condition known as "synechia posterior," that is to say, bands of plastic adhesion between the iris and the lens, which now and again, by the traction exerted on them by the muscular iris in its movements, set up irritation, and so of themselves, independently of any return of the original cause, perpetuate or renew the mischief. I might adduce many other examples, all of them more or less unsatisfactory, as complete parallels, but all of them, nevertheless, illustrating the position which I take up. However, I have, in the case of chronic eczema, a more clinching illustration in the circumstance that I myself and many others who have published their experience have found that local remedies are of themselves fully sufficient to cure the disease without medication of any other kind whatsoever. Here I may fully admit that a person who has had one attack of eczema, even after he has been completely cured of that attack, will by no means find himself thereby exempt from the possibility of another attack at some future period; on the contrary, he will often find that he may have a recurrence of his disease, just as a man who has had an attack of rheumatic fever (acute articular rheumatism) may have another attack or not, with a probability, arising on account of his first attack, of successors to it. But I have said enough to show what apology I have for advocating a mere local remedy as serviceable in the case of chronic eczema. Many of the profession are well content to employ local remedies in that disease, and even to place considerable reliance on their instrumentality: of such local remedies, not to enter into wide detail, by far the most popular in this country is the benzoated oxide of zinc ointment. I take it that more of this ointment is prescribed in the treatment of chronic disease of the skin within the United Kingdom than of any other kind of ointment. I feel sure that most practitioners have used a larger quantity of this ointment in the treatment of chronic eczema than they have of any other local application. Of late years, however, this popular application has had a rival in the unguentum diachyli, which has been adopted from Vienna—a dilution of diachylon-plaster, with olive oil to bring it to the consistency of ointment. Neither of these applications would have become so generally used unless they possessed some efficacy. I have tried them both very often indeed, and I quite know them to be useful remedies. However, long before diachylon ointment had became popular over here,—certainly long before I myself knew of it,—I had endeavoured to find something more efficient than the zinc ointment, which I had often found to fail of anything like efficiency, and I thought I had found this in lead ointment: I accordingly tried the acetate of lead ointment of the Pharmacopœia—that is to say, a mixture of the powdered crystals with lard. I soon, however, had reason to think, on trial, a mixture of the subacetatis plumbi liquor (Goulard's extract) with lard a more efficient application by far. At length, however, I took to using glycerine in place of lard as a vehicle for applying that remedy. I had previously tried water, in fact, lead lotion of various strengths. Lead lotion of moderate strength (ʒ ss. ad ℥j.), used as an evaporating lotion, is, indeed, in my experience, one of the most excellent applications for acute eczema; but in chronic eczema I have found it of very little service. Here, lead ointment becomes much more valuable. I venture to say that I feel sure, from ample experience, that lead is an infinitely more suitable agent in the local treatment of eczema than zinc. Lead, however, has been but little used in this country for the purpose. The agent that has been, and still is, chiefly in vogue for this purpose is zinc. It would not be untrue to assert that for some time past—how far back that time may reach I am unable to say—the two principal prescriptions for skin disease in this country have been zinc ointment and zinc lotion. As to the zinc ointment, it is a tradition that it must be *benzoated* zinc ointment. It is probably not generally known to prescribers that this stipulation is a very immaterial one, and from one point of view even a disadvantage. The addition of the benzoin is simply to preserve the ointment (somewhat imperfectly, however) from becoming rancid when stale; and this lame safeguard is apt to induce the pharmacist to keep it (since it is much in demand) in stock, whereas ointments of any kind should always be made fresh, and prescribed in such moderate quantity that they may always be expended rapidly, for no artificial preservation of them will enable them to bear comparison with the fresh preparation. As to the zinc lotion, it has been the fashion to colour it with calamine, and the same kind of tradition has preserved the erroneous belief that the calamine is in some sort an essential therapeutical ingredient of the lotion. Lead, however, is, I am well persuaded, by far a more soothing, and at the same time a much more astringent application than oxide of zinc. I have found that it unquestionably allays the itching, restrains the discharge, and diminishes the hyperæmia of eczema; in short, it *cures* it far more speedily than zinc does. It is of the best mode of applying this efficient agent in the treatment of chronic eczema that I have now more particularly to speak. As a lotion it fails, and I think it is not difficult to see how this happens. The lotion fails to keep the surface moist: the warmth of the body speedily causes it to evaporate; that is to say, the water passes off as vapour, and the lead is left on the surface of the comparatively dry gummy layer of viscid exudation which is characteristic of eczema. Thus the remedy is precluded very considerably from influencing the skin itself, and is deposited simply on the surface of the scab, however minutely dotted and however thin that scab may be.

Lead ointment is far more efficient. It preserves the moisture of the secretion, and so permits of the passage by osmosis of the remedy from the ointment through the secretion to the surface of the skin.

(*To be continued.*)

The Paris Medical Night-Service.—The importance attached to this may be judged of by the returns made for the first two months of its operation. Thus, between January 6 and March 1 the practitioners who had announced to the police their willingness to attend have made 630 visits. Of these, 35 were paid for directly to the practitioners in attendance, and the fees of 215 were recovered by the Administration, which incurred the expenses in the other 380 cases. There was a mean number of twelve visits per night for the whole of Paris.—*Gaz. des Hôp.*, March 6.

Photography in Aid of Diagnosis.—Photography oftentimes presents so high a degree of sensibility that it renders certain defects distinctly visible that the eye could not discern. The portrait of a lady taken by photography was observed to be covered with spots, the original of which did not present the slightest trace of them. Shortly after, however, they appeared distinctly enough, and the lady died of small-pox. Photography had thus anticipated sight, and had recognised before the latter spots of a very pale yellow.—*Lyon Méd.*

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

EPILEPSY—AUTOMATIC AND UNCONSCIOUS PERFORMANCE OF COMPLEX ACTIONS.

(Under the care of Dr. HUGHLINGS-JACKSON.)
[Reported by Mr. R. Atkinson.]

This case is a valuable illustration of mental automatism after epileptic seizures.

For about two years and a half the attacks would appear by the mother's account to have been unattended by any trace of convulsion. However, the patient lost her consciousness suddenly, and on many occasions. The case even then was recognisably epileptic. Two years ago, seizures which were evidently epileptic convulsions came on. Later still, she had attacks in which, whilst unconscious or with obscure consciousness, she acted automatically and unconsciously. Some of these actions are carefully detailed from the mother's account by Mr. Atkinson. The patient was in the hospital a few weeks, but nothing abnormal was noticed in her mental state: she had no seizures of any kind.

The latest attacks may be called "masked epilepsy." It will perhaps be said that they "replaced" epileptic fits. Dr. Hughlings-Jackson does not adopt this hypothesis; he thinks it more likely that there was a slight and transient seizure before the automatic actions began. He thinks that the elaborateness of the automatic actions accords with the inference that the fit was very slight and transient. It is admitted that *no* signs of a prior paroxysm *were noticed* in the case to be narrated.

In some cases, especially in children, there are reported to the medical attendant the *sudden* occurrence of elaborate actions of a strange character, often malicious or mischievous. When the patient has not had ordinary epileptic paroxysms (either of *le petit mal* or *le grand mal*) the correct interpretation of these actions is not always easy; they are almost certainly epileptic.

Dr. Hughlings-Jackson thinks it a matter of exceedingly great importance to consider all degrees of mental automatism after epileptic seizures, or all degrees of suddenly occurring and transitory mental automatism in persons known to be epileptic. In a paper in the last volume of the *West Riding Asylum Reports* (vol. v.) he gives numerous illustrations of mental automatism, varying from the slightest departures from normal actions to violent and quasi-criminal actions. Scientifically, however, the matter of importance is the degree of elaborateness or complexity of the actions. *He believes that the slighter the fit, the more elaborate the mental automatism, the more it is influenced or guided by external circumstanees oeeurring just before, during, or after the paroxysm.* The expression "during the paroxysm" is used because in the slightest fits consciousness is obscured, not lost, and thus external things may influence the patient. Again, we should consider as practically belonging to the same category the influence of such things as coloured vision, the result of the paroxysm itself; for this is regarded as external by patients whose consciousness is obscured; it no doubt gives rise to ideas of "flames," "blood," etc.

Lucy G., aged twenty-three, admitted November 18, 1875. The patient began to have fits four years and a half ago. The first, and, indeed, all the subsequent fits, came on without any warning. When she had her first fit the patient was assisting her mother in some domestic work in the kitchen, when she was observed to walk into the garden. The mother noticed nothing peculiar in her manner; but happening accidentally to look out of the window, she saw her daughter fall suddenly to the ground. She ran out, and found the patient lying motionless. Her limbs were not convulsed, but she was quite unconscious. In about an hour consciousness returned, and she complained only of headache. A week after this she had another attack. She was on this occasion engaged in ironing, and a few minutes before had been laughing and talking with her mother. The mother, noticing that her daughter did not answer when spoken to, turned and found her lying on the floor. She was unconscious, and, as before, there were no convulsions. After this the fits became more frequent, and as many as seven have occurred in one week. They were all of the same character. It was noticed that the fits were always more frequent about the menstrual period. Menstruation was then, and continues to be, painful, profuse, and more frequent than normal.

Two years ago the fits became altered in character. She would now struggle very much, and clench her hands. Occasionally, too, she would bite her tongue.

Seven weeks before admission into the hospital, instead of having fits as before, the patient began "to do foolish actions." On one occasion when her mother went to call her in the morning, she met the patient coming downstairs with the bedclothes in her arms. The mother said, "Child! what are you going to do?" The patient answered something about wishing to make a bed downstairs, and then burst into tears. During breakfast on the same morning she took a handful of sugar out of the sugar-basin, and began to cram it into her mouth. Soon after she swept the cups, saucers, and other articles from the table, saying she was about to put them away. This she did, not in anger, but, as her mother said, "as if she did not know what she was doing." On another occasion she spat in her mother's face. There had been no quarrel between them. Once the patient imagined her husband was ill, and asked her mother to give her money to buy beef-tea and wine for him. Her husband was at this time quite well, and at work as usual, and lived in the house with his wife and her mother. The patient's mother, from whom these particulars were obtained, did not know what circumstanee had suggested this idea to her.

When the patient had these attacks her friends would notice nothing wrong with her until their attention was drawn by the performance of some such foolish action as those recorded above. They never on such occasions noticed any slight paroxysm resembling a fit. In the intervals she was quite well, and able to attend to her household duties—indeed, she was well enough to be allowed to go out alone, and she had on two occasions at least such attacks when alone in the street. Once she came alone by train to Fenchurch-street Station. When the train arrived at Fenchurch-street the patient went to the station-master, and accused a lady who travelled in the same carriage of having stolen her ticket. This was absurd, as the tickets had been collected before the train reached Fenchurch-street. The station-master detained her some time, and then allowed her to go home. Another foolish action occurred in the following way:—The patient went out alone one day for a walk. Her mother at this time was being attended by a medical man, but nothing had been said to the patient about her calling on him; however, she went to his house, and said she had come for medicine for her mother. The doctor would not have noticed anything peculiar in her demeanour had she not told him that she had been watched on her way to his house; and even then he did not consider her so ill as to be unable to find her way home, as he allowed her to leave unattended. She was very long in getting home, so that her friends became much alarmed, and went out to search for her. Once she pulled her boot off, and threw it at the fire; on another occasion she threw it at the window. The performance of these actions made no impression on her memory, as she never remembered anything about them afterwards.

She never has any coloured vision, and never sees imaginary objects, but several times she has becomes suddenly blind. Such blindness is total, lasts five or ten minutes, and then leaves her sight as good as before. This occurred once when she was in chapel. She was standing up reading her hymn-book, when suddenly everything round her appeared quite black. She felt a little giddy and confused. After a few minutes this passed off, and she felt well again.

Milk as an Absorbent.—A correspondent of a morning contemporary, on the 14th inst., draws attention to one circumstance respecting the peculiar properties of milk—that of its power of attracting and absorbing impure matter—which is worthy of notice, namely: "To the practice of placing a saucer of new milk in a larder in order to preserve meat or game from approaching taint. It is said that not only does it answer that purpose, but that the milk after a few hours becomes so bad that no animal will touch it." The correspondent adds: "I think that this little homely fact may, perhaps, interest those who are studying the causes of the Eagley epidemic."

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Medical Times and Gazette.

SATURDAY, MARCH 18, 1876.

THE EAGLEY EPIDEMIC.

On the 8th inst., Mr. E. Sergeant, Medical Officer of Health for the Borough of Bolton, presented to the Sanitary Committee of the Bolton Corporation a very interesting and able report on the extent to which the Milk Epidemic, commonly spoken of as the Eagley Epidemic, has affected the borough of Bolton. It is made evident that the epidemic assumed much larger proportions in Bolton than was at first anticipated, no less than 111 persons having been more or less severely affected. They were distributed among fifty families, and were all attacked within a period of thirty-three days. The first case occurred on January 22, and during the next seven days only a few attacks were noted; but on the 30th there was a sudden outburst of the disease, eight cases occurring; and thirteen or fourteen new cases were reported on each of the four succeeding days; so that on those five days the fever invaded thirty-one houses, and attacked no less than sixty-one persons. After February 5 the number of new cases rapidly decreased, and no fresh case was reported after February 23. There had been five fatal cases (two males and three females) of the ages seventeen, eleven, seventeen, fifty, and thirty-four years respectively. When Mr. Sergeant's report was presented, only a few of those attacked were still ill, and all of these were expected to recover. The numbers taken ill in a family varied much—in twenty houses there were solitary cases, seventeen had two, and in the remaining families the patients varied from four to eight. Of the 111 attacked, forty-six were males and sixty-five females. The largest proportion of patients were under twenty-five years of age, and these were principally women and children. Only eight patients were between forty-five and fifty-five, and only three fifty-five and upwards. "The disease," Mr. Sergeant says, "followed with unerring fatality the track of the milk supplies from Mrs. Kershaw's farm. Not one household to which the milk was traced did I find entirely free from disease; the houses, clean or dirty, were attacked indiscriminately. In one house only was the drainage defective; and here a death occurred, which might possibly have been influenced by the unsanitary condition." Besides the cases recorded as being definitely due to the milk, there were some others which seemed somewhat doubtful; but of these some at least might have partaken of the milk from Kershaw's farm, for they had obtained milk irregularly from different shops near their homes, and one of those shops was supplied from that farm, and, moreover, the milk from that farm was not seldom exchanged with that of other dairymen. Mr. Sergeant gives some remarkable evidence of the dependence of the outbreak of the disease on the quality of the milk. "One man told me," he says, "that he vomited immediately after taking some of it, and, refusing to take any more, he was not further troubled, while his wife, who continued to take it, became seriously ill; and one person who, on January 30, drank only half a pint of it, 'just as it came from the cart,' suffered considerably for three weeks after. In a family of nine, eight of the members who drank the milk had typhoid fever; the mother, who did not like it, and took none, remained perfectly well." Mr. Sergeant considers, as Mr. Robinson does, that two factors were concerned in the causation of the epidemic—viz., unwholesome milk from a diseased cow; and water, used for dairy purposes, "from a brook which had been conspicuously polluted by the fæcal deposits of large numbers of men employed in erecting a mill." But he, very rightly, thinks that "the mixing of the milk with that obtained from an unhealthy cow could not alone produce true typhoid, undoubtedly developed in many cases, though it might account for the symptoms of intense colic, constipation, and vomiting, which were marked, and peculiar to this outbreak, and which in some cases constituted the entire disease"; and here also he is quite in accord with Mr. Robinson. He admits that specific contamination of the polluted water has not been accurately traced, but he does carry the history in this direction somewhat further than had before been done, for he states that "there is abundant evidence of some individual who has used the polluted stream having suffered from diarrhœa"; and this is undoubtedly a very suspicious circumstance, for the diarrhœa may have been of a typhoidal character, and its recent deposit go far to explain the suddenness of the outbreak. The typhoid part of the epidemic is only to be accounted for, Mr. Sergeant observes, "by the water having been contaminated with the above-mentioned diarrhœa-fæcal matter, possibly of a typhoidal type, or by a sudden accession to the water of fæcal matter undergoing peculiar putrefactive changes." The report concludes with some remarks on the necessity for sanitary supervision and control of dairy farms, and of a legislative enactment making it compulsory upon the medical attendant, or the head of a family, to report immediately upon the contraction of infectious disease of one or more members of the household. At present, Mr. Sergeant observes very forcibly, "for the detection of epidemic disease the officer of health has only at his command registered deaths and the information kindly given by his medical friends. This is palpably insufficient; we want information on the first occurrence of an outbreak, not after its close. Compulsory registration of every case of infectious disease is the only safeguard by which health officers would be made cognisant of every case as it occurred, and enabled to 'surround it with a sanitary cordon,' and thus effectually prevent the further extension of the disease. In my opinion, not uncommonly epidemics run their course in large towns, and are detected, when too late for any good, by an excess of deaths from one or other of the zymotics. If the milk experiment had not been tried with such disastrous results at the village of Eagley, and detected with such promptitude by the officer of health, it is difficult to say what wholesale disease might not have been produced in the borough before its detection."

DISTAL LIGATURE IN CASES OF ANEURISM.

The debate which was raised by the cases read by Dr. Greenhow and Mr. Holmes at the Clinical Society on Friday week can hardly be said to have exhibited in a very favourable light either the debating power of its surgical members, or the definiteness of their views on the important question as to when and how they should be called upon to bring their skill to bear upon the treatment of aneurisms in the root of the neck. A most hopeless confusion seems to exist in the minds of some as to the varieties of what is known as the distal ligature, which we suppose is now to be reserved for aneurisms in this situation inasmuch as it is necessarily an imperfect method of treatment, and should in all other parts give place to something more efficient. Brasdor's method proper—or, as Mr. Holmes prefers to call it, Wardrop's—is something very definite, and has a *rationale* which is quite easy to understand: it consists in the ligature of an artery beyond the seat of an aneurism in cases where no branches intervene between the aneurism and the ligature, as, *e.g.*, in aneurism of the common carotid, or in cases where the common carotid and the subclavian in the first part are ligatured for aneurism of the innominate. This Mr. Wardrop seems to have shown by cited cases is occasionally a successful, as it certainly appears to be a rational, line of treatment. The next step was also suggested by Mr. Wardrop, and consists in applying a ligature to the distal side of an artery in cases where branches do intervene, as, *e.g.*, where, for innominate aneurism, either the carotid or the subclavian alone is tied. Here the chance of a successful result seems, *à priori*, more doubtful; and the *rationale* of a cure, if such occur, is more difficult to understand. We find, indeed, on referring to Mr. Heath's table, published in the article on Aneurism in Mr. Holmes's "System of Surgery," that out of the eighteen cases mentioned, six lived more than four months; or, in other words, that in a third of the cases the operation did not itself cause death. But only one of these is said to have recovered; and in that one, of course, the diagnosis was not proved. Lastly, there is a more problematical mode of applying the ligature (first suggested by Dr. Cockle, and first put in practice by Mr. Heath), which has about as little relation to Brasdor's method as one operation can possibly have to another. Mr. Heath lays down the rule for our guidance in its performance by saying that the practice should be to tie the first artery on the distal side of the aneurism. Now, in favour of this practice, all that can at present be brought forward are two cases: one of Mr. Heath's, in which the left carotid was tied in February, 1872, for aneurism presumably in the arch of the aorta, and which was followed by almost immediate relief of urgent symptoms, which relief continues up to the present time; and that read by Mr. Holmes at the Clinical Society—unless, indeed, we include Dr. Greenhow's case, which, we venture to think, does not bear very forcibly upon the question. We may say, in passing, that Mr. Heath's case of ligature of the subclavian and carotid for an aneurism supposed to be of the innominate, but which was afterwards found to be of the aorta, comes under none of the three heads we have mentioned, but stands in a category altogether by itself, as a case in which cutting off the flow of blood through a large trunk opposite, or even on, the proximal side of an aneurism produced an improvement, which is as remarkable as we believe it to be up to the present time unexplained. The explanation given by Mr. Holmes to account for the improvement in his particular case appears a very rational one, and coincides with that which is obviously suggested by the success of Brasdor's operation, and it seems not unlikely that it may account for the marked improvement in Mr. Heath's case of 1872. But in what manner the simple deligation of that one branch of a large vessel which happens to arise next beyond an aneurism can possibly influence it except by increasing the pressure in the sac for a time, we fail to see, and the ultimate diminution in the flow of blood through it after the establishment of the collateral circulation would, in such a case as that under consideration, be quite insignificant. Who would suggest the ligature of the subscapular artery for aneurism of the axillary, or of the great anastomatic for one of the femoral in Hunter's canal? Yet the conditions will not be found, on reflection, to be very far from parallel. Until Mr. Heath, or some other supporter of this line of treatment, suggests a reasonable hypothesis as to the manner in which it is likely to act, or can bring forward some more undoubtedly successful cases in which it has been employed, it is hardly likely to be regarded by many surgeons with great approval. Lastly, we must fully concur with Mr. Holmes that it is a great pity that a serious question such as this should be treated with anything approaching to flippancy. The suggestion that operative interference is to be called in only as a *dernier ressort*, when medicine has obviously failed, is surely scarcely worthy of the science of surgery in the nineteenth century.

THE DIAGNOSIS OF EMPYEMA.

A new method of distinguishing between different kinds of pleuritic effusions has lately been brought forward by Professor Guido Baccelli, of Rome,(a) and promises to be a real addition to our diagnostic aids. We have hitherto been able to say whether there was fluid in the pleura or not, but the question of its serous or purulent nature has had to be answered by reference to a number of collateral circumstances, none of which by itself was conclusive, and which, as Professor Baccelli points out, may even fail collectively. We have decided that there was an empyema present when an effusion has remained long unabsorbed, while at the same time the fever kept up, and the patient gradually lost flesh and strength, and perhaps suffered from œdema of the extremities. By the new method, which is quite simple, we are at once able to determine whether the exudation is serous or purulent. It is founded on a physical law—namely, that the vibrations of sound in liquids are transmitted *inversely* to their density. In a serous fluid, therefore, the sound passes more readily than in a purulent; and it is found that, whereas the whispered voice (*la parola aforcicamente sillabata*) can be heard clearly(b), accompanied with bronchial expiration, at the base of a *serous* effusion, the spoken voice is not transmitted nor bronchial breathing heard over a purulent exudation. To use the method accurately, two conditions must be complied with: (1.) The ear of the auscultator, which is not applied to the chest, must be withdrawn from all external sounds by closure with the finger, and the ear must be firmly pressed naked against the chest, unassisted by a stethoscope. (2.) The patient must be placed in such a position that when he speaks the bundle (*fascio*) of oral vibrations shall issue in a direction diametrically opposed to the ear of the listener. This condition is attained, supposing that the right lung is being auscultated behind, "by turning the patient's head so much to the left that, by drawing an imaginary line from his mouth to the point in the thorax where the ear is applied (on the posterior paraxillary line), it passes diagonally downwards through the centre of the effusion." Besides distinguishing between a simple serous effusion and a purulent effusion, this method enables the

(a) "Sulla Trasmissione dei Suoni attraverso i Liquidi Endopleurici di Differente Natura," di Guido Baccelli, Professore di Clinica Medica nella R. Università di Roma.—(*Archivio de Medicina, Chirurgia, ed Igiene*, 1875, Dispensa vii. e viii.)

(b) Professor Baccelli makes his patients say the words, "trenta-trè," pronounced "tren-tah-tray"; but probably "ninety-nine" would do as well.

existence of a mixed effusion to be detected—*i.e.*, of a serous exudation, in which flakes of fibrine and a moderate amount of leucocytes are contained,—since the latter, by their subsidence to the lower part of the thorax, prevent the passage of the whispered voice over the area which they occupy.

The following case, which is one of several which Professor Baccelli details, will illustrate the application of this principle in practice:—"Santi D., aged twenty years, a peasant, was admitted with symptoms of pleuritic effusion filling his whole left chest. Here the whispered voice was transmitted clearly over the anterior surface of the thorax along the paramammary line as low as the fifth intercostal space. The right border of the heart was under the right nipple, and would be indicated by a line descending obliquely from the second piece of the sternum. The actual displacement amounted to seventeen centimetres measured horizontally. As far as the edge of the eighth rib the whispered voice was transmitted distinctly. Over the left lateral (axillary) region it was heard clearly to the sixth rib; indistinctly to the eighth. Over the left back the whispered voice was transmitted clearly from above downwards as far as to two centimetres above the angle of the scapula, and indistinctly for five centimetres lower still. The diagnosis founded on the physical signs was 'an exudation of moderate density containing fibrine, albumen, and leucocytes.' Paracentesis was performed, and one litre and a half of serum, in which floated some flakes of serum, and which contained a moderate amount of leucocytes, was withdrawn." The simplicity of this new method will insure for it, we feel confident, general acceptance. Professor Baccelli's reputation is sufficiently high in Italy to render his suggestions worthy of our best consideration in this country, and we shall hope before long to hear of cases to which his method has been successfully applied by English physicians.

THE WEEK.

TOPICS OF THE DAY.

Mr. Gathorne Hardy has lately given proof that, where his mind is made up, no outward pressure will turn him from his determination; and it would be well if the opponents to the reconstruction of the Knightsbridge Barracks upon their original site would bear this in mind. A deputation hostile to the present position of the barracks has waited upon the Secretary of State for War, and the subject has been discussed in Parliament, but we are bound to say that, in our opinion, nothing has been yet advanced which should induce the authorities to abandon the present position for the proposed buildings. The plans for the intended structure have been submitted to Sir William Muir, the Director-General of the Army Medical Department, who was for some time the head of the sanitary branch of that office, and have been pronounced by him to be perfectly unobjectionable. An exception has been taken to the scheme on the ground that the quarters for the men are to be over the stables; but Mr. Hardy points out that at Shorncliffe and Colchester, where cavalry barracks have been constructed on this principle, no ill-effects have been observed,—on the contrary, at the latter station the men have been found to be more healthy than when located in separate rooms. The stables, moreover, according to the approved design, are to project beyond the rooms above, and every known sanitary precaution is to be adopted. We think that in the end it will be found that the present site will be retained, and that the reconstruction will greatly benefit the health of the troops.

In answer to an inquiry in the House of Commons, Sir C. Adderley explained that the Board of Trade had received notice of the numerous cases of scurvy in sea-going vessels which had been lately reported. In most instances, he stated, medical officers had been instructed to institute official examinations; and he observed that it was remarked that the cases of scurvy increased where teetotalism was practised, so that it was recommended that a ration of spirits should be served out when the disease appeared. No new provisions for preventing scurvy had occurred to her Majesty's Government, the penalties on shipowners for any default of precautions being considered ample, and the provisions of the Act of 1867 having greatly tended to reduce occurrence of the disease. It must not, however, be forgotten that a batch of these cases have lately been reported, and it becomes a question whether, if a proper supervision had been exercised before the vessels left port, many of these outbreaks of scurvy might not have been prevented.

According to a return recently issued it appears that there are 340 coroners in England and Wales, and the cost of the coroners and the expenses of the inquests in the last year given amounted to £82,538.

We have to record yet another outbreak of typhoid fever in the North attributed to unwholesome milk. Dr. Settle, Medical Officer of Health to the Astley Bridge Local Board, reports an outbreak of fever of a typhoid type in that place, which is situated near Bolton. Careful investigation disclosed the fact that in eleven out of thirteen cases milk from the same farm had been partaken of. In ten out of twelve cases, however, where the same milk was used, Dr. Settle found only two additional cases. Only one fatal case has up to the present time been recorded. The farm whence the milk was furnished is supplied with water by the Bolton Corporation, and none other is used. The cows have been stall-fed during the winter, without any grazing, and all are said to have been healthy.

The report of Dr. Whitmore, Medical Officer of Health for the Parish of St. Marylebone, for the month of February, still records an exceptionally high death-rate, equivalent to an annual death-rate of 28·57 per 1000 of the resident population. In the three past months bronchitis alone has caused 276 deaths in the parish; whilst from all diseases of the respiratory organs, including phthisis, the deaths amounted to 489, being about 42 per cent. of the total deaths registered in the parish during that period. Dr. Whitmore, in alluding to the numerous cases of fever which have resulted all over the country from drinking polluted milk, observes that in the absence of legislative interference the public themselves should awaken from their present apathy, and take vigorous action. In most of the poorer localities there are many small shops where, amongst such articles as herrings, onions, cheese, and tobacco, milk also is sold, and in the majority of these shops it is utterly impossible to preserve it pure, or prevent it absorbing the unpleasant combination of smells arising from the articles beforementioned. In London and its suburbs there are large milk establishments where the utmost attention is paid to cleanliness, and where every precaution is taken to keep the milk free from pollution of every kind. To these establishments wise and prudent people interested in the health and well-being of their children will naturally go for their milk supply, and until other milk vendors adopt similar precautions they cannot expect to retain public confidence.

A question of the greatest importance to householders has just been decided by Mr. Justice Quain. An action was brought in the Queen's Bench Division by the trustees of a Mrs. Hall to recover the rent of a furnished house from May 7 to July 31. The defendant, acting on behalf of Lady Winchelsea, had agreed, in writing, to take the house, but there was no express covenant that the same was reasonably habitable. When Lady Winchelsea entered it, she believed that she noticed symptoms of bad drainage, and she immediately left the house and declined to occupy it. The sanitary inspector of the district subsequently inspected the house on

behalf of Lady Winchelsea, and on his recommendation glazed pipe-drains were substituted by Mrs. Hall for the barrel brick drains. Dr. Corfield, Professor of Hygiene, also inspected the house, and pronounced it unfit for habitation. On the other hand, it appeared that Mrs. Hall was very particular in sanitary matters, and she had, six weeks previous to May 7, instructed her builders to put the drains into thorough order; and she and her children had lived in the house until May 6. Mr. Justice Quain, however, ruled that, although the agreement was silent on this point, there was in such a case an implied condition that a house should be reasonably habitable; and, if the house in question were not so, Lady Winchelsea was justified in declining to occupy it. The jury found a verdict for the defendant, and leave was reserved to the plaintiff to appeal. Thus the question whether there is an implied condition of the sanitary sufficiency of a house in the contract for letting it may be directly raised before the Court *in banco*.

Ill-temper is a possession which must be dreadfully trying to its owner, and scarcely removable, we should think, by a lengthened imprisonment, even in a padded room. The Bethnal-green Board of Guardians would seem to be of a similar opinion. A young woman, aged twenty-two, was lately shut up in the padded room of the Workhouse from Monday until the meeting of the Committee on Thursday, when, not appearing to be insane, she was released. One of the guardians expressed an opinion that something more than an order of the doctor or master should be required before an inmate should be subjected to such treatment, and that a second medical opinion should be taken before such a course was adopted. The Chairman explained that on several previous occasions it had been found necessary to place the girl in question under restraint, in consequence of her violent behaviour. The Board, however, did not appear to be thoroughly satisfied with this explanation, and it was moved, "That it be an instruction to their medical officer that where a case of confinement in the padded room for twenty-four hours occurred, a second medical opinion should be obtained." Some of the guardians were of opinion that the medical officer should not shut up anyone for a single hour without a second medical opinion being taken, but an amendment to this effect was negatived, and the original motion carried.

We understand that an association, called "The Queen's University Graduates' Association in London," has recently been formed under the presidency of Mr. W. Mac Cormac, of Harley-street. The objects of the Association are the promotion of social intercourse and intimacy amongst the graduates of the Queen's University in Ireland residing in or near London, and the maintenance and extension of the interests of the University.

Dr. Hassall, in his recent work on "Food and its Adulterations," referring to an analysis of the well-water from which the famous pale ales brewed by Samuel Allsopp and Sons, of Burton-on-Trent, are manufactured, states that this water contains 7·65 grains of sulphate of zinc, the fact being that no sulphate of zinc whatever is to be found in the water. Dr. Hassall's attention having been called to this erroneous statement, he has explained, in a letter addressed to Messrs. Samuel Allsopp and Sons, that for "sulphate of zinc," "sulphate of potash" should have been substituted. Dr. Hassall expresses his great annoyance that, through an inadvertence upon his part, so damaging a mis-statement should have been allowed to appear in his book.

It will be learnt with much regret by old Middlesex Hospital men that Dr. Robert Liveing has resigned his appointment as Physician to the Hospital. For several years Dr. Liveing was a popular lecturer and teacher in the Middlesex Hospital Medical School, and in this capacity especially endeared himself to the students. As is well known, however, Dr. Liveing has for some few years past been devoting a great portion of his time and thought to the treatment of skin diseases, and as the duties of the office of physician to a general hospital make great demands upon the attention of the holder, Dr. Liveing has felt himself obliged to resign. The students of the Hospital have petitioned him to withdraw his resignation, but this Dr. Liveing is not willing to do. It is expected, however, that he will be invited still to retain his connexion with the Hospital and School by continuing to see the patients suffering from diseases of the skin at the out-patient department, and by giving lectures on the pathology and treatment of skin diseases.

THE CONTRACTILITY OF THE SPLEEN.

Professor Botkin, of St. Petersburg, has recently(a) pointed out that splenic enlargements, due to leukæmia, malarial influence, or acute infectious disorders, can be much diminished in size by passing an induced galvanic current through the adjacent parts. The reduction of volume is, however, not permanent, and either only persists as long as the current is passing, or else for varying periods up to twenty-four hours. The liver not unfrequently becomes larger as the spleen gets smaller, owing to the additional quantity of blood which is then forced into the portal system. The effect of mental emotions, and of strong percussion or palpation, is similar to that of electricity in reducing splenic enlargements, and in all these cases the variations of size which the organ undergoes are due partly to the varying amount of blood which it contains, and partly to the contraction of its muscular fibres. In one case of leukæmia, in which electricity was used, the number of white blood-corpuscles in the body generally was decidedly increased after each sitting; and both this case and another were so much benefited by repeated electrisation as to lead Prof. Botkin to the conclusion that the nutritive disturbances in leukæmia can be explained by the increase of white blood-corpuscles. Some of our readers may remember that Prof. Biesiadecki, of Cracow, has lately propounded a similar view; but from other reasons (vide *Medical Times and Gazette*, page 552, vol. ii. 1875), Dr. Botkin believes, too, that splenic enlargements are injurious, owing to the stagnation of blood which accompanies them, and probably to an increased destruction of red blood-cells, and that electricity may prove a remedy of value in the splenic enlargements of acute infectious disorders by counteracting these two events. Hence, he considers that extreme congestion (*starke Blutanhäufung*) is the main feature in such enlargements as are rapidly produced, and again as rapidly and completely disappear, and that hyperplastic changes are of only secondary importance.

The relation of the swelling of the liver above spoken of to the contraction of the spleen has been lately made the subject of experimental investigation by Dr. Drosdoff and Dr. Botschetschkaroff, of St. Petersburg, with the following confirmatory results. They found (*Centralblatt*, Jan. 29, 1876) that in dogs (1) the spleen enlarges in all its diameters several centimetres when the nerves of the splenic plexus are divided, and that it contracts again when the peripheral ends of these nerves are electrically excited; (2), that when the contraction of the spleen is produced by electrical stimulation the liver enlarges, its outlines become more definite, its colour brighter, and its consistence firmer, and when the spleen again enlarges these signs disappear; (3), that if a prick be made in the liver when the spleen is swollen, scarcely any blood flows, but as soon as the spleen contracts it issues in abundance; (4), that with each contraction of the spleen there is a discharge of white blood-cells into the hepatic blood, as proved by counting the proportion of white to red corpuscles in blood drawn before and during the contraction. It seems probable that the spleen

(a) S. Botkin, "Die Contractilität der Milz," Berlin, 1874.

thus rids itself, so to speak, of the white corpuscles which were stored up in it; (5), if a manometer is attached to the splenic vein, and the splenic nerves are stimulated, the pressure rises in the instrument in proportion to the extent to which the spleen contracts, and it again falls to its former level when the stimulus is intermitted. But it is important to observe that the spleen itself does not immediately begin to enlarge again on the withdrawal of the stimulus, but takes some minutes before it alters perceptibly in shape. This proves that its contraction and enlargement depend not solely on vaso-motor influences, but also on the presence of muscular elements in its tissues, such as Müller and others have described; (6), the contractile power of the spleen is not completely destroyed by ligaturing all its vessels, but only considerably diminished. If the arteries alone are ligatured, so that no blood enters it, the organ enlarges and diminishes on stimulation much less than in the normal state. If, on the other hand, the veins alone are tied, the spleen swells up more, and contracts less powerfully, than if the exit of blood from it is unimpeded.

AN ANTI-CONTAGIOUS DISEASES ACTS CONFERENCE.

A MEETING of a few medical men representing the "National Medical Association for the Repeal of the Contagious Diseases Acts" was held in the Mayor's Parlour at the Manchester Town Hall on the 7th inst. Some idea of the enthusiasm manifested in the meeting—or, rather, the "annual conference," as the promoters delight to call the gathering—may be obtained when it is stated that *one* member of the profession resident in Manchester was present during the greater part of the proceedings. The numerical weakness of the "conference" was amply compensated for by the energy of those who were present, and it must have been intensely gratifying to them that the resolutions they proposed were carried with the greatest unanimity. We are glad to find, from a perusal of the speeches as reported in the local press, that the "conference" advanced no direct claim to represent the collective wisdom of the medical profession, or to a monopoly of information respecting the working of the Acts under discussion; but we cannot help thinking that Dr. J. Birkbeck Nevins must have some exclusive sources of information, as he was able to narrate some instances of "innocent girls" having been "subjected to shameful outrage at the hands of the police and hospital surgeons,"—whereat the meeting was moved to indignation. The "innocents" were not, we believe, forthcoming.

QUALIFIED MIDWIVES.

LAST week a deputation waited upon the Duke of Richmond and Gordon, Lord President of the Privy Council,—with whom were Lord Sandon, Vice-President, and the President of the Local Government Board,—representing the Parliamentary Bills Committee of the British Medical Association, the Obstetrical Society, the Infant Life Protection Association, and the Social Science Association, to call attention to the necessity which is alleged to exist for the protection of life in mothers and infants among the poorer classes, by requiring that the "midwives" who attend upon the poor professionally shall be qualified and registered. The deputation was introduced by the Right Hon. Lyon Playfair, M.P., Mr. Ernest Noel, M.P., Sir Trevor Lawrence, M.P., and Mr. Walter H. James, M.P. Among those present were Dr. Priestley, President of the Obstetrical Society; Dr. Arthur Farre, Dr. Braxton Hicks, Mr. Heckstall Smith, Dr. Murray, Dr. Graily Hewitt, Dr. Tilt, and Mr. E. Hart. The latter gentleman addressed the Ministers, and handed them copies of the statements which had been laid before the late Government. There was a striking fact given in the comparison of the statistics of the Royal Maternity Charity with the general statistics of childbirth in England. The mortality of childbirth in all England was said to be 1 in 200, while in this Charity it was but 1 in 400 one year, and another 1 in 900. Thus it seemed to be shown that with wholly skilled attendance the mortality in births was more than four times less than among the general births, which were attended by skilled and unskilled persons; and this was to be accounted for by the evil results arising from women engaging in midwifery without any skill or experience. Mr. Lyon Playfair, whilst pointing out the importance of insuring the competency of persons acting as midwives, guarded against the confusion of the objects of the deputation with the movement for licensing "medical women," which was a totally different question. The Duke of Richmond and Gordon said he was much indebted to the learned gentlemen who had placed these facts before the Government on a subject which he recognised as of the highest importance to the country; and to show that the Government were quite alive to its importance, he mentioned that he had been in communication with the General Medical Council, to ascertain the views of that body with regard to the matter. He had no doubt the gentlemen present were actuated by the highest feelings of humanity in asking that the poor should not be given over to unskilled midwives. He concluded by observing that though there were difficulties in the way of dealing with the subject, yet he would promise that it should not be lost sight of.

GLASGOW: VENTILATION OF SEWERS.

AT a meeting of the Glasgow Police Board, recently held, the Lord Provost intimated that the scheme recommended by Sir John Hawkshaw for the ventilation of sewers,—which has been found so beneficial in London and Brighton,—was about to be applied in Blythswood-square and Park-terrace. The former is situated in a very populous locality, and the latter has a very high elevation. In both, the inhabitants have made frequent complaints of noxious gases penetrating their dwellings, and in not a few of the houses cases of typhoid fever have been traced to this cause. The sewers in Glasgow already possess a system of ventilation, but it is not nearly so complete as that suggested by Sir John Hawkshaw. If the experiment proves successful, it will be carried out in other districts. In the districts above referred to, both of which are elevated, it will have a fair trial. From the medical officer's report for the fortnight ending February 26, submitted to the same meeting, it appears that the mortality is on the increase, having advanced from 27 per 1000 to 33 per 1000. The increase in the mortality seems to have fallen upon those under one year and upwards of sixty years respectively; and to have been caused largely, if not chiefly, by the greater prevalence of pulmonary affections and of infectious diseases.

DEATH OF PROFESSOR PARKES, F.R.S.

WE deeply regret having to announce that Dr. Parkes died, at his residence near Southampton, on Wednesday, the 15th. It has for some little time been known that he was so ill that recovery seemed all but hopeless. At the end of last week some of his oldest and most intimate friends, among whom we may mention Sir William Jenner and Dr. Hermann Weber, saw him as he and they believed for the last time; and on Monday, the 13th, a report of his death was current in London. In reality, however, he had on the 12th rallied so much that there seemed to be again some hope that he might still recover. But this was not to be, and on the Wednesday afternoon he quietly sank to his rest. We cannot attempt this week to give any account of Dr. Parkes's eminent public services. His life was one long devotion to his country and to science; and to within a very short time of his death, we believe, he busied himself with the correction of the proof-sheets of a popular Manual of Hygiene. As regarded his own health and strength he worked "not wisely, but too well," and in that respect only, if in any, can it be felt that his life was not a perfect

example to all. His sterling nobility and rare sweetness of character won the love as well as the high regard and respect of all who knew him; and it would be difficult to name any-one whose death would be more deeply and widely mourned, at home and abroad.

A NEW DANGER OF THE STREETS.

THE shocking accident which occurred at Duncan-street, Islington, on Sunday last, vividly illustrates a new danger to life in the streets of London. In the accident to which we refer the severe storm blew down the telegraph-wires running parallel with Duncan-street, one of which stretched across the roadway leading to the omnibus yard at the back of Duncan-terrace. Almost immediately afterwards an unfortunate ostler was driving an omnibus into the yard, and, being probably prevented by the heavy snow-storm from seeing the wire, he was caught by it under the chin, as it were in a loop, and, being unable to stop the horses, his throat was cut clean across as if by a knife, all the soft structures immediately above the hyoid bone being divided to the vertebræ. The wound then took an upward direction behind the ramus of the inferior maxillary bone on each side, and terminated at the base of the skull, the resistance of the bone being, it is believed, sufficiently great to cause the wire to break. Death must have been instantaneous, as the large vessels in the neck were completely divided. Sir John Hawkshaw states in the *Times* that galvanised wire does not last more than a dozen years, and in all probability the first intimation of decay will be the falling of the wires upon passers-by; and the weight of the wires falling from such heights as those at which they are now so frequently suspended will generally be sufficient to kill or maim those upon whom they fall.

PRESCRIBING CHEMISTS OF BOTH SEXES.

CASES continue to be recorded, which show the imprudence of the public in applying to chemists for medical advice, and the urgent need of adopting more rigorous measures to check "counter prescribing." Recently an inquiry was held by Dr. Hardwicke touching the death of the infant daughter of the Rev. Mr. Canney. The child was suffering from a cold and cough, and the nurse was sent to a chemist in Lisson-grove, who provided some medicine, of which one teaspoonful was to be given as a dose. This quantity was given at bedtime, and the child slept heavily all night. In the morning, Dr. H. C. Stewart was called in, who found the child suffering from "sopor ab opio" with bronchitis, and it died at 11 p.m. on the same day; death having, to all appearance, been accelerated by an overdose of opium. The jury were of opinion that more care should have been taken in preparing the mixture; but perhaps it would have been more to the point to caution the chemist not to assume the duties of a medical man.

An inquest in a similar case was held at Clerkenwell last week. The deceased child was suffering from wheezing and shortness of breath. The mother went to a chemist's shop, and procured a powder from a woman who was in attendance. A few days after, she obtained another powder from the same person. Next day the child was worse, and she took it to Dr. Smyth, who found it in a state of stupor, apparently from an overdose of opium. Death resulted shortly after. The jury in this case, having returned a verdict in accordance with the medical evidence, stated that they were desirous to caution mothers against obtaining medicines from unqualified chemists. "Cautions" are very good in their way, but, unfortunately for infants, neither mothers nor chemists appear to heed them.

GLASGOW OPHTHALMIC INSTITUTION.

THE annual general meeting of the subscribers to the Glasgow Ophthalmic Institution was held on the 13th inst. The Lord Provost presided, and amongst the gentlemen present were the Right Hon. the Earl of Stair, Sir James Watson, etc. We make the following extracts from the Directors' Report:—At the beginning of the year a number of patients were on the roll, but, in addition to these, 3391 new cases have been admitted, of which number 3054 were dispensary patients, while 337 were treated as indoor patients. This shows an increase of 236 in the number of patients as compared with the previous year. The total number of patients treated at this Institution during the last six years amounts to 15,987, of which upwards of 95 per cent. have been dismissed cured. Of the 3391 cases admitted during the year, 3277 were cured, 78 relieved, and 97 dismissed as incurable. Notwithstanding the general depression in trade, the income of the Institution has continued to increase, and it is gratifying to observe that nearly two-thirds of the entire annual income is derived from the working classes. Of the operations performed during the year, nearly 500 were for cases of injury received in public works. Of the cases of cataract in both eyes successfully operated on, one patient was two years old, and one had reached the age of eighty-five years. The number of patients is increasing so rapidly that an extension of the accommodation is contemplated. At present the hospital contains twenty beds. All the speakers bore testimony to the admirable manner in which the Institution is conducted by Dr. Wolfe and his assistants.

ASSOCIATION OF LEGALLY QUALIFIED DENTAL SURGEONS.

WE are authorised to state that the new Dental Society, which will be known by the above title, will be open to any persons practising dentistry whose names are entitled to be placed upon the Medical Register. Its objects, briefly stated, are to elevate the status of the specialty of dental surgery by inducing those practising it to become fully qualified practitioners; to encourage a higher educational standard, both general and special; and to further those modes of practice which are compatible only with the highest professional status. All qualified medical practitioners will be eligible for membership, and honorary members will be elected. The management of the Society will be entrusted to the following gentlemen:—*Chairman:* S. Cartwright, Esq., F.R.C.S. *Vice-Chairman:* S. J. A. Salter, M.B. Lond., F.R.S. *Treasurer:* A. Coleman, F.R.C.S. *Secretary:* S. Hamilton Cartwright, M.R.C.S. *Council:* H. Craigie, Esq., M.R.C.S.; T. Edgelow, M.B., M.R.C.S.; D. Napier, M.R.C.S.

THE HEALTH OF BRIGHTON.

DURING last quarter the health of Brighton was, we learn from the report of Dr. Taaffe (Medical Officer of Health), most satisfactory. The total number of deaths registered in the municipal borough was 477, or 19 per 1000, as against 558, or 22·7 per 1000, in the corresponding quarter of 1874. The seven principal zymotic diseases were represented by 37 deaths, of which 5 were referred to whooping-cough, 2 to diphtheria, 7 to fever, 16 to diarrhœa, and 7 to scarlatina. Brighton was more fortunate than some of its neighbours, in not having a single death from small-pox. It is noteworthy that of fifteen children who died from diarrhœa, only six were nursed by the mother, three were fed by milk-and-water from a bottle, and the remaining six were fed on artificial foods.

THE MEDICAL DEPARTMENT AT KING'S COLLEGE.

THE following changes have taken place at King's College, consequent upon the resignation by Dr. Johnson of the chair of Medicine:—A chair of Clinical Medicine has been established, to which Dr. Johnson has been appointed, he retaining at the same time his Physicianship at the Hospital; and Dr. Beale has been appointed Professor of Medicine. An additional Assistant-Surgeon is also to be appointed at King's College Hospital.

THE ANTIPYRETIC ACTION OF SALICYLIC ACID AND SALICYLATE OF SODA.

In April, 1875, attention was called by Dr. Butt, of St. Gall, and Dr. Fürbringer, of Heidelberg, to the power of salicylic acid to reduce the temperature in various feverish affections. Dr. Butt even described the acid as almost equal to quinine as an antipyretic, and stated that he had given it in doses of from four to eight grammes in typhoid fever, erysipelas, acute rheumatism, etc., with the best results (vide *Centralblatt. Med. Wiss.*, No. 18, 1875). Since then Dr. Wolffberg has tried it in Professor Ziemssen's clinic in a number of cases of typhoid fever, in doses of from two to six grammes, and he has come to the conclusion that its antipyretic effect is not nearly so powerful as that of half as large a dose of quinine; and that, moreover, the action of the drug is uncertain. Dr. Wolffberg states that the internal use of salicylic acid is not unattended with danger. He found hæmorrhagic erosions in the mucous membrane of the stomach and duodenum, in several persons who died after they had taken the acid made up into wafers; and in the large intestine of a dog which had had an enema containing two grammes suspended in forty grammes of water there were numerous hæmorrhagic ulcerations. Instead of salicylic acid, Dr. C. Mveli has lately (*Berliner Klin. Wochenschrift*, No. 38, 1875) recommended the use of salicylate of soda in fever. He gives it in doses of four to five grammes, and finds that such a quantity exercises a marked antipyretic effect when the temperature is only moderately high, but that in severe cases a second dose is needed, from four to sixteen hours afterwards, to reduce the fever as much as 1·5° to 3° Cent. As a rule, the effect of a dose lasts twenty-four hours; and it is most marked if the acid is given during the natural interval of daily defervescence. Dr. Mveli has used the soda salt with benefit in typhoid fever, and also in pneumonia and acute rheumatism. The fall of temperature which it causes was accompanied by copious perspirations in about half his cases. There were no injurious after-effects. Occasionally transient vomiting was excited by the drug. Its action was most satisfactory when administered by the mouth; less so in the form of enemata. In healthy persons, salicylate of soda appears to have no effect on the temperature at all; and, according to Dr. Fürbringer's experiments, the same is true of salicylic acid.

MEDICAL SOCIETY OF LONDON.

The annual meeting for election of officers and Council was held on March 6, when the following gentlemen were elected: —*President:* William Adams, F.R.C.S. *Vice-Presidents:* F. W. Pavy, M.D., F.R.S.; C. F. Maunder, F.R.C.S.; J. C. Thorowgood, M.D., F.R.C.P.; F. W. Braine, F.R.C.S. *Treasurer:* John Gay, F.R.C.S. *Librarian:* C. Theodore Williams, M.D., F.R.C.P. *Secretaries-in-Ordinary:* Richard Davy, F.R.C.S.; Clement Godson, M.D. *Secretary for Foreign Correspondence:* Leonard Sedgwick, M.D. *Orator:* J. Hughlings-Jackson, M.D., F.R.C.P. *Council:* William Allingham, F.R.C.S.; H. Royes Bell, F.R.C.S.; Thomas Bond, F.R.C.S.; W. H. Broadbent, M.D., F.R.C.P.; John Brunton, M.A., M.D.; Thomas Bryant, F.R.C.S.; William Cholmeley, M.D., F.R.C.P.; Charles Coates, M.D. (Bath); W. H. Day, M.D.; T. S. Dowse, M.D.; Robert Farquharson, M.D.; J. Milner Fothergill, M.D.; F. J. Gant, F.R.C.S.; J. D. Heaton, M.D., F.R.C.P. (Leeds); Thomas Harvey Hill, Esq.; George Lichtenberg, M.D.; W. D. Napier, Esq.; J. H. Paul, M.D.; R. Semple, M.D., F.R.C.P.; Erasmus Wilson, F.R.S.

DEATH OF PROFESSOR STEINER.

We are sorry to have to announce the death of Professor Steiner, of Prague, which took place on February 15. His most excellent Manual of Children's Diseases lately appeared in an English dress.

THE AUSTRIAN PHARMACOPŒIA.

The metric system has been introduced into pharmaceutical use throughout Austria since January 1, 1876, and for the future all physicians will be expected to prescribe according to it, and all druggists to dispense by it. Tables have been issued for reducing the old grain and ounce weights (the same as we still adopt in Great Britain) into that of the gramme and its fractions; and old prescriptions, written prior to the new system, will, if re-dispensed, have to be so reduced. An excellent feature of the Austrian system seems to us to be, that for poisonous drugs there is not only a maximum single dose defined, but also a maximum collective dose *for the day of twenty-four hours*, which the chemist is forbidden to exceed, unless the prescriber has appended a note of admiration to show that he purposely ordered an unusual dose. We might with advantage take a hint from the Austrian regulations.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

The sixth meeting of this Society was held on Friday, March 3, at the Royal Kent Dispensary, Greenwich-road, Dr. Creed (Vice-President) in the chair (the President, Dr. J. N. Miller, being unavoidably absent). Dr. Carr read for Dr. Miller a paper "On the Germ Theory of Disease, especially on its Relation to Diseases of an Acute and Specific Nature,"—a subject which was handled by the writer in a very masterly and practical manner, and gave great satisfaction to the members present. The next meeting will be held Friday, April 7, at 8 p.m. precisely.

PARLIAMENTARY.—MEDICAL DEGREES—THE CATTLE DISEASE—SCURVY—ARMY MEDICAL OFFICERS—ARMY VETERINARY SURGEONS—TYPHOID FEVER—VIVISECTION—CONTAGIOUS DISEASES (ANIMALS).

In the House of Commons, on Thursday, March 9,

Viscount Sandon, replying to Mr. Eslington's inquiry respecting the "Conjoint Scheme," said that the Government has reason to believe that, as regards England, considerable progress has been made towards settling the basis of an arrangement which is likely to receive general assent. If satisfactory arrangements are concluded in England, they could not but hope that a like result would follow in the other parts of the United Kingdom. In this state of the case the hon. gentleman must understand that he could not give any opinion as to what may be the views hereafter of her Majesty's Government as to the expediency or necessity of proposing legislative measures to promote or hasten the general adoption of the Conjoint Scheme.

Mr. O'Conor gave notice that on the motion referring to this subject being brought forward, he would move that it was desirable that the recommendations of the Select Committee relating to foot-and-mouth disease should be carried into effect.

Sir C. Adderley, in reply to Mr. Ward's inquiry respecting the appearance of scurvy, said that several cases had occurred on board ship. The medical inspectors were instructed to make inquiries, and they reported that the causes were dirty habits of the crew, bad provisions, deficient lime-juice, bad water, and the use of cook's slush by the men; and observed that scurvy increased where teetotalism was practised. A ration of spirits was recommended in such cases. No new provisions for preventing scurvy have occurred to her Majesty's Government. The penalties on shipowners for any default of precautions are ample. The provisions of the Act of 1867 have greatly reduced scurvy.

On Friday, March 10,

Mr. Hardy, replying to Mr. Playfair, said that a Warrant would very speedily be issued in which all the details would be given as to how both the new and the old Surgeons would be affected by the proposed short-service system in the army. He might say their prospects would be affected by the promotions which would be received. The matter was rather one to be tested by the operation of the new rules which they proposed to issue.

On Monday, March 13,

In reply to Mr. Stacpoole, Mr. Hardy said that there was no Warrant relating to the holding of their office by the principal Army Veterinary Surgeons, and there was no regula-

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tion fixing the period during which they should hold the office. Whether it would be prudent to make a change was a question well worthy of consideration.

In the debate on the Navy Estimates,

Mr. Ward Hunt said it would be in the recollection of the Committee that a new Order in Council had been issued improving the condition of the medical officers of the service. He was anxious to ascertain the operation of that Order, and he found that by the retirement of four Inspectors-General at the age of sixty, four had been given to Deputy-Inspectors and four to Fleet Surgeons. Six Fleet Surgeons had retired, and ten had gained promotion who would not otherwise have obtained that step. That Order in Council had thus operated to procure a flow of promotion. With regard to the inducements to young men to enter the Service, he found that whereas in February, 1875, there were only four candidates at the medical examination, last February the number of candidates was thirteen, so that the operation of the Order in Council had been highly satisfactory in inducing more men to come forward and join the Service.

In the House of Lords, on Tuesday, March 14,

The Duke of Richmond, replying to Lord Henniker, said that the Royal Commission on Vivisection had sat for a considerable time and taken a great amount of evidence on that subject. The Government did not in any way underrate either the importance of the evidence taken before the Commission or the very able and clear manner in which the whole question had been gone into and reported upon. He was sorry that he could not do more than give his noble friend the assurance that the matter was under the consideration of the Government, and he was unable to say when any legislation would be attempted in regard to it.

In the House of Commons,

Lord E. Cecil, replying to Mr. Olive, was understood to say that, according to a return which he had received, there were six cases in all of typhoid fever reported from the Pigeon-house, Shepherd's-bush, and Island-bridge Barracks, and that there were no other cases reported from any other barracks in Dublin.

Mr. Reed, in a very lengthy and elaborate speech, proceeded to call attention to the Report of the Contagious Diseases (Animals) Act Committee, 1873, and to move a resolution on the subject. Two resolutions were passed—one was that an endeavour should be made to stamp out pleuro-pneumonia by slaughtering cattle and compensating owners for their loss; the other was that the orders for the stoppage of disease should cease to be varying and permissive, and that they should be uniform for Great Britain and Ireland. The late Government omitted Ireland from the order. On the first day of the session he laid before the House a resolution to the effect that the order should be extended to Ireland or rescinded. A few days after, the Duke of Richmond made a statement in another place that the request would be granted. He regretted that it took two years to produce that effect on his Grace. The one article of faith of the permanent officials was their faith in inspection—inspection to discover diseases which everybody admitted had a period of incubation varying from a few days to several months. The thermometer test might be practicable in a London dairy where the cows were as quiet as pet lambs, but impracticable for Irish cattle in a marsh or strawyard. The officials had been fairly successful in keeping out the cattle plague; there had only been one attack since 1865. The Cattle Plague Commission were called barbarous and unscientific for their statement that the cattle plague must be stamped out, but stamped out it was by carrying out their recommendations; and what was more, pleuro-pneumonia was very nearly exterminated. For eighteen months we got rid of foot-and-mouth disease; and it was not till sheep were turned out of the Metropolitan Market that we had this disease again throughout the country. The precautions now taken for pleuro-pneumonia were simply these—a detention of twelve hours to find out a disease which veterinary surgeons declared had an incubation of from three weeks to two months. If all foreign cattle were consigned to Deptford, trade would by this time have settled down there, and buyers would regularly attend that market. If Aberdeen could send dead meat to London with advantage, there was no part of England to which meat could not be sent from the metropolis. Some thirty years ago London slaughter-houses were condemned by Sir R. Peel, but, in consequence of the recommendation of a Committee over which Dr. Brewer presided, the House of Commons passed a Bill for their continuance at a time when most of the cities in Europe, and a good many in our own country, were abolishing them.

Mr. O'Conor said it was perfectly well proved that the foot-and-mouth disease could not be seriously checked by anything short of the most extreme measures. He complained of the double inspection of cattle at embarkation and on landing, and moved a resolution as above.

Mr. Forster alluded to the four diseases with which we had to cope—cattle plague, sheep-pox, pleuro-pneumonia, and foot-and-mouth disease. Partly owing to Government action, there was no sheep-pox or cattle plague in the country, so that practically we had to deal with pleuro-pneumonia and foot-and-mouth disease. Wherever these two diseases originally came from, they are now English diseases, and completely naturalised here. He approved of uniformity of regulations. He believed that slaughter was generally compulsory now for pleuro-pneumonia. The recommendation of the Committee with regard to prolonging the isolation from thirty days to two months could not be carried while the present Act was in force. With regard to foot-and-mouth disease, every member of the Committee was agreed that there was no middle course between no restrictions and restrictions of the most stringent character. With regard to Deptford Market, the Government must either remove those restrictions which required that if any animal in a cargo was affected with foot-and-mouth disease the whole cargo should be sent to Deptford Market, or else that all foreign animals imported into this country must go to Deptford. He was not prepared to take that step, but there was no middle course between them.

Lord R. Montagu said that at the commencement of the cattle plague the farmers of England, struck with terror, sent all their cattle to the Metropolitan Market. But what was the effect upon the market? Butchers instantly raised the price of meat, and their excuse was because of the cattle plague! Two years passed, and the farmers, not having enough stock, kept back the cattle; and upon that the butchers raised the price again. He thought that disposed of the argument against slaughter at the ports.

Viscount Sandon, in the course of his remarks, said that to isolate suspected cattle for two months, as also for the proposed fusion of local authorities, he did not think it desirable to recommend fresh legislation. The Government were completely of opinion that uniformity was an object not only most excellent in itself, but one at which we must aim steadily and perseveringly. Steps had already been taken to effect uniformity, with a view to attain it by the mildest means. When the inspection at Irish ports had been rendered more perfect, that in the English would be relaxed, and the staff of inspectors would be increased. Any unnecessary interference with the meat-supply of the people or with the farmer in his daily pursuits would be a great evil, and the Government must steer clear of this difficulty.

The motion and amendment were withdrawn.

Bequests to Medical Charities.—Mr. William Sands-Cox, of Leamington, who died in December last, has bequeathed to the Cottage Hospital, Moreton-in-the-Marsh, Worcestershire, £3000 Consols; and among other specific bequests to this Hospital, he gives it the chair in which Charles I. sat during his trial in Westminster Hall, and which the testator states he had direct from William Sands, who obtained it from Lady Fane, of Little Compton, Warwickshire, the direct descendant of Bishop Juxon. He also leaves £12,000 Consols, upon trust, to erect dispensaries at Balsall-heath, King's Norton, Worcestershire, Nechells in the parish of Aston, Warwickshire, and Hockley, near Birmingham, and £3000 Consols in each case to form an endowment fund; for the erection and endowment of dispensaries at Tamworth and Kenilworth, £3000 Consols each; to endow medical scholarships at King Edward VI.'s Grammar School, Birmingham, and Guy's Hospital, London, £500 Consols each. Subject to some other legacies, he gives the residue of the personalty to his wife for life, and at her death one-sixth to the Cottage Hospital at Moreton-in-the-Marsh, and the other five-sixths equally between the before-mentioned five dispensaries. The testator also expressed a wish to be carried to the grave by six old medical students of Queen's College, Birmingham, who were each to receive a gold ring of the value of five guineas.

THE REPORT OF THE ROYAL COMMISSION ON THE PRACTICE OF SUBJECTING LIVE ANIMALS TO EXPERIMENTS FOR SCIENTIFIC PURPOSES.

(*Continued from page* 287.)

The following extract from the Report of the above Commission is so good that we cannot refrain from laying it before our readers:—

Experiments upon living animals then may be considered under three principal heads, viz.:—

a. Operations:—These are performed for the purpose of examining, either for original research or for demonstration to students, the processes of life.

b. The administration of poisonous or dangerous drugs:—for the purpose of exhibiting the effect, or of discovering the cure,—or for the purpose of assisting legal investigations.

c. The production of disease:—for the purpose of observing its progress, and discovering the means of preventing, mitigating, or curing the effects of the same or similar diseases in men or animals.

a. The principal cases which have been selected for us as instances in which such operations have resulted in great discoveries have been the discovery of the circulation of the blood,—the discovery of the action of the lacteal and lymphatic systems of vessels,—and Sir Charles Bell's discovery of the compound function of the spinal nerves: these three subjects have been selected for illustration because they lie at the very foundation of our present physiological knowledge. Professor Turner, of Edinburgh, to whom we have been indebted for this selection, has submitted to us notes of the history of various discoveries, and we desire to direct the particular attention of all who wish to examine the extent to which practical medicine has been improved by physiological experiment to his evidence and that of Dr. M'Kendrick on the subject.

It would require a voluminous treatise to exhibit in a consecutive statement the benefits that medicine and surgery have derived from these discoveries. Let us take for our example the discovery of the circulation of the blood, and the various improvements in the treatment of diseases, and in the safer method of performing surgical operations on the human subject, that have resulted from it. In medicine, it is obvious that a knowledge of the nature of, and of the proper treatment to apply, in the large and important class of diseases of the heart and bloodvessels, could not have been acquired without a knowledge of the mechanism of the circulation. In surgery, this discovery has exercised a still more direct influence; and the narrative of the improvements in practice directly referable to it would lead us by gradual and successive stages from the time when after an amputation red-hot irons were applied to staunch the bleeding vessels, to the employment of the carbolised ligature of the present day. If Harvey's experiments, and those upon the lacteal system, were to be performed now, the animals would first be rendered insensible to pain; and even in the case of Sir Charles Bell's experiments, where sensation was the immediate subject of the investigation, by far the most severe part would also be performed while the animal was in a state of complete anæsthesia.

If, therefore, this inquiry had been instituted at some former time, we should have been compelled, in regard to this class of experiment, to weigh in the one scale the infliction of great and perhaps protracted suffering,—and in the other the sacrifice of knowledge, most important to mankind, but only to be looked for from experiments which involved such suffering. By the discovery of anæsthetics we have been relieved from that necessity, and our present task is to devise measures which may prove effectual to prevent abuse.

b. With reference to the administration of poisons to the lower animals, Sir James Paget brings forward the hope of discovering an antidote for snake-poisons, in proof of the absolute necessity for the performance of these experiments. He mentions the many thousands of your Majesty's Indian subjects who perish annually from snake-bites. It is hopeless, he says, to make observations upon the persons bitten by the snakes, with the expectation of effecting a cure. A Government reward has been offered for the discovery of a sufficient antidote. Sir James Paget mentions the case of an enthusiast who was so sanguine of obtaining this reward that he was with difficulty restrained from subjecting himself to the bite of the cobra in proof of the efficacy of his antidote. The medical authorities of St. Bartholomew's Hospital persuaded him to transfer the experiment to some pigeons, which all instantly died. Sir James Paget says we cannot expect that short of fifty years hence a true antidote for snake-bites should be found by any other means than by a series of experiments.

Of the advantages derived to man from the administration of drugs to animals by way of experiment, Sir James Paget gives an illustration in the case of that fatal and distressing malady angina pectoris, which appears quite recently to have been brought in some degree within the domain of medical control, in consequence of a discovery made from observing the effect of nitrite of amyl on living animals. It must not be forgotten that for the discovery of anæsthetics themselves both men and animals have been largely indebted to the practice now in question.

On the subject of administering poisons to animals in furtherance of medico-legal jurisprudence we examined Dr. Taylor, Lecturer on Medical Jurisprudence and Toxicology at Guy's Hospital, the author of well-known works upon the subject. Dr. Taylor has been a principal witness on all great cases of poisoning for the last twenty years. He referred us especially to his experience in the cases of Palmer, Smethurst, and Pritchard. He tells us that in the case of Palmer the conviction resulted from evidence given by himself and Dr. Rees. The effect of strychnine was at that time little known. Great difficulty was occasioned to the prosecution by the mode in which the viscera were handled after they had been taken from the body. The main point in controversy was whether it was possible that the poison could have been the occasion of the death, seeing that it was not found in the contents of the stomach. This possibility was established by experiments upon six rabbits made by Dr. Taylor and Dr. Rees. Again, Dr. Taylor referred us to a case which occurred in Suffolk twelve or fourteen years ago, in which a woman was charged with having administered arsenic to her stepchild, who had clearly died from the effects of that poison. Dr. Taylor and Dr. Pavy established by experiments upon rabbits and dogs what satisfied the coroner's jury that the presence of arsenic in the stomach was not inconsistent with the statement that the death had been occasioned by the admitted application of arsenical ointment to the skin. These cases might be multiplied indefinitely.

It is not possible for us to recommend that the Indian Government should be prohibited from pursuing its endeavours to discover an antidote for snake-bites, or that without such an effort your Majesty's Indian subjects should be left to perish in large numbers annually from the effects of these poisons; nor can we say that new medicinal agents ought in the first instance to be tried upon man, when the risk to human life might have been prevented by a previous trial upon animals. We cannot recommend that for want of such experiments criminals like Palmer should be permitted to escape, or persons suspected be deprived of the means of establishing their innocence. But we think it is most desirable that an effectual restraint should be placed upon what Dr. Taylor has described to us as purposeless cruelty,—on experiments made in excessive numbers,—on experiments made to establish what has been already proved,—on experiments attended with great pain, and defeating the very object in view,—on experiments made where a man has been desirous of bringing himself forward, or trying a new thing merely for the sake of a little notoriety.

c. The production of disease in animals has been already, and is likely to become still more, the source of knowledge prophylactic as well as therapeutic, tending in the most important degree to the prevention as well as to the mitigation and the cure of disease in the human family. There can be no simpler or more striking example than that of vaccination for the small-pox, the discovery which was said to have saved more lives than all the wars of Napoleon had destroyed. It was by observation that Dr. Jenner discovered the immunity from small-pox of those who had contracted cow-pox. But it was by experiments upon cows that the origin of the cow-pox, a disease stated to be derived from grease in the horse, was ascertained. At the present time systematic experiments are being made under the direction of the Committee of your Majesty's Privy Council, for the purpose of establishing facts which may guide that Department in taking efficient measures

for the prevention or for the cure of disease. In an explanatory memorandum given to Mr. Forster, when Vice-President, by Mr. Simon, the Medical Officer, it is stated that the first aim is to obtain exact scientific knowledge of the causes and mode of attack of any disease which is in question; and in this study it frequently happens that more or less experiment has to be made as to the results which the administration of a particular influence will produce on an animal. Studies of this kind are sometimes made more immediately in the interests of man, as for instance in the case of the Asiatic cholera, and sometimes in that of the domestic animals, as in the case of sheep-pox and cattle plague, but perhaps oftenest in the common interests of both. Mr. Simon states in his memorandum that being obliged, as medical adviser of the Government, to make himself as proficient as he can in all that relates to the preventing and resisting of disease, he has felt it indispensable to have recourse *inter alia* to such studies. The subjects to which his investigations have been particularly directed have been cholera, tubercle, pyæmia, sheep-pox, and disinfectants. Much of the practical advice given by the Department to the public as to how they shall deal with the cases of cholera which may arise, and the precautions they shall take against the spreading of the disease, is founded on the basis of such experiments. The mode in which cholera is spread had indeed been suspected. It was a theory in the teaching of Dr. Snow in 1849, but Mr. Simon states that since that time it has been converted by experiment into a certainty which can be made a basis for the advice of a Government department. Important knowledge has also been acquired in respect of tuberculosis, that fatal malady which causes the loss of one-tenth of the whole number of the human family who die in the United Kingdom. This knowledge may be expected to receive fresh development, and to lead, if not to the suggestion of any cure, at least to the avoidance of many of the causes which now occasion the production of the malady in the human subject.

The following are the names of the gentlemen examined; and to certain points in their evidence we may again turn :—

Sir Thomas Watson, Bart.; Sir George Burrows, Bart; Sir James Paget, Bart.; William Sharpey, M.D.; Professor George M. Humphry; William Pritchard, M.R.C.V.S.; Henry Wentworth Acland, M.D.; Sir William Fergusson, Bart.; Alfred Swaine Taylor, M.D.; George Rolleston, M.D.; John Simon, F.R.S.; John Colam; Arthur de Noé Walker, M.D.; Lawson Cape, M.D.; George Macilwain, F.R.C.S.; The Rev. Samuel Haughton, M.D.; Alfred Henry Garrod; Frederick William Pavy, M.D.; Philip Henry Pye-Smith, M.D.; J. Burdon Sanderson, M.D.; Michael Foster, M.D.; William Rutherford, M.D.; William Turner, M.B.; James Crichton Browne, M.D.; David Ferrier, M.D.; George Hoggan, M.B.; Emanuel Klein, M.D.; Edward A. Schäfer, M.R.C.S.; John Gray McKendrick, M.D.; Robert Sawyer; Joseph Lister, M.B.; G. R. Jesse; Robert McDonnell, M.D.; Thomas Hayden, F.R.C.S.; John Cleland, M.D.; Charles Darwin; Francis Sibson, M.D.; John Mallet Purser, M.D.; James B. Mills, M.R.C.V.S.; William Benjamin Archibald Scott, M.D.; Wickham Legg, M.D.; Arthur Gamgee, M.D.; George James Allman, M.D.; Sir William Withey Gull, Bart.; William Benjamin Carpenter, M.D.; Thomas Lauder Brunton, M.D.; Alexander James Sinclair, M.D.; Peter David Handyside, M.D.; William Williams; Edwards Crisp, M.D.; James Maden Holt, M.P.; George Henry Lewes; John Anthony, M.D.

The Muséum d'Histoire Naturelle.—The Professorships of Zoology and Mineralogy having become vacant by the retirement of Prof. Milne-Edwards and Prof. Delafosse, the candidates recommended to the Minister of Public Instruction, both by the Muséum and the Académie des Sciences, are MM. Alphonse Milne-Edwards and Des Cloizeaux.—*L'Institut*, March 8.

The Paul Bert Prize.—Dr. Paul Bert, Deputé de l'Yonne, and Professor of Experimental Physiology at the Faculté des Sciences, has founded a prize with the view of recompensing the author of the best essay having for its object the indication of the mechanical and scientific means of preserving, in the rarefied regions of our atmosphere, the lives of persons ascending mountains or in balloons. The prize (500 frs. in value) will be awarded at the end of 1876 by the Société Française de Navigation Aérienne. Essays to be sent to the office of the Society, 95, Rue Lafayette.

LECTURES ON CLINICAL MEDICINE,

DELIVERED AT THE LARIBOISIÈRE HOSPITAL, PARIS.

By S. JACCOUD, M.D.

TRANSLATED (WITH SPECIAL PERMISSION)

By Mr. C. J. CULLINGWORTH, of Manchester.

CHOREA—RHYTHMIC SPASMS.—II.

(*Concluded from page* 176.)

Disorders improperly styled "Abnormal Chorea"—Systematised Locomotor Impulses: Rectilinear Movements, Movements of Leaping, and of Rotation—Rhythmic Spasms—Account of a New Variety.

Before we separate, I wish to speak to you for a few minutes in reference to certain motor disturbances which have been wrongly coupled with chorea, although they do not present even a remote analogy with it. I have divided these disorders into two groups, according as the abnormal and involuntary phenomenon consists of a combined movement, an act of locomotion on the part of the patient, or simply in a regular and rhythmical movement of a limited portion, without the body being altogether moved from its place. Abandoning the phrase "static cramps," proposed by Romberg, I have named the first group of disorders "systematised locomotor impulses," and the others "rhythmic spasms."(a)

Systematised locomotor impulses come on in recurring attacks of more or less frequency, in the intervals between which the patient has complete mastery over his movements. In the same individual, the impulse is always towards the same kind of movement, but in this respect two altogether distinct varieties must be recognised. Sometimes, indeed, the impulse is to move in a right line, impelling the patient forwards, backwards, and (more rarely) to the right or left; in short, it follows the direction of the antero-posterior or the lateral axis. Sometimes, on the contrary, the impulses are irregular, consisting of sudden leaps, or more or less rapid movements of rotation. Now, *rectilinear impulses*, or impulses in the direction of the axis, which are capable of being reproduced experimentally by section or irritation of certain parts of the encephalon, depend upon lesions of the brain, and, in the intervals between the attacks, other symptoms are manifested, which are connected with the cerebral affection. Saltatory and rotatory impulses consist, in the immense majority of cases, of simple functional disturbances: they are generally observed during the second period of childhood and about the age of puberty, and frequently depend upon hysteria. They are only occasionally seen in the adult, and they are then, very probably, due to some alteration in the spinal cord, for the movement only takes place in consequence of a centripetal impression which excites a morbid hyperkinesia of the spinal axis, and the disorder does not yield to the most suitable treatment. Thus, then, the prognosis in these cases of saltatory and rotatory cramp is entirely different, according to the age of the person affected, and according to whether the impulse is spontaneous or reflex. The two cases published by Bamberger in 1859 are the earliest examples of these saltatory cramps in the adult: in both cases the influence of a centripetal excitation in producing the movement was as clear as could be: as soon as the patient's feet touched the ground, his body leaped into the air, then fell, only to make a fresh leap, and this scene lasted as long as the patient maintained the upright position.(b)

It was not until 1867 that a similar case was reported by Guttmann, who had watched it in Griesinger's wards. The patient was a joiner, of forty-six years, in whom the saltatory phenomena had developed gradually. He was first seized with tremblings in one of the lower extremities, then in both; but these tremblings only occurred when he placed his feet upon the ground. Later on, the trembling was replaced by abrupt and unavoidable leaps, in accomplishing which the body was raised from half a foot to a foot from the ground. These leaps occurred every time the patient touched the ground, unless at the same time he took hold of some solid support. Matters went on thus for years, without the least

(a) S. Jaccoud, "Leçons de Clinique Méd. faites à l'Hôpital de la Charité." Paris, 1867.

(b) H. Bamberger, "Saltatorischer Reflex-Krampf, eine merkwürdige Form von Spinal-Irritation" (*Wiener Med. Wochenschrift*, ix. Jahrg., 1859, Ss. 49 und 65).

favourable change having been effected by the most judicious treatment, including electricity. It is of importance to note that the saltatory attacks were preceded, in the case of this man, by a kind of aura, slightly painful in character, which, beginning from the legs, was propagated along the back as far as the occiput. On the other hand, while no anomaly was observed in the cerebro-spinal functions, no hyperæsthesia in the sole of the foot, there was abnormal sensitiveness over the spinal processes of the seventh cervical vertebra, and from the fourth to the sixth dorsal; moreover, Guttmann succeeded six times in bringing about rudimentary leaps by means of strong pressure over these processes, particularly over those of the fourth and fifth dorsal vertebræ. When the account of this case was published, the condition of the patient remained unaltered.(c)

Records of cases of this kind are very rare: it is not so with regard to those which are met with in children,—they are comparatively frequent. I have myself seen a very beautiful example at Bordeaux, in a boy of twelve, in whose case my learned *confrères* Denucé and H. Gintrac did me the honour to call me in consultation. This child, of delicate constitution and nervous temperament, the offspring of an hysterical mother, had not had chorea, and he had then for several weeks exhibited saltatory phenomena, in the production of which centripetal impressions played no part. The course of events was in fact the following:—Suddenly, whether seated or standing (it did not much matter), the little patient fell on his knees, and in this position he hopped the full length of the room in which he happened to be. The attack over, he raised himself up, and experienced nothing amiss beyond a certain amount of fatigue; for the rest, there was no regularity either as regards the frequency or the duration of these paroxysms. Tonics on the one hand, bromide of potassium and the application of ether-spray on the other, formed the basis of the treatment. I have learnt from Professor Denucé that this boy got quite well.

Rhythmic spasms ("co-ordinated spasms" of Romberg), when occurring independently of any cerebro-spinal lesion, are, above all, hysterical manifestations. These disorders do not provoke movements of locomotion: they are localised phenomena, always identical in the same individual, and consist of spasmodic or rhythmic contraction of certain groups of muscles. These spasms are often termed "abnormal chorea," whence the expressions—malleatory chorea, rotatory chorea, vibratory chorea, barking chorea, etc. These names, founded on a serious pathological mistake, should be permanently set aside; there is no analogy, no possible connexion, mind, between these rhythmic contractions and chorea, and any term which implies such an assimilation is only calculated to introduce the most complete confusion. These rhythmic spasms may co-exist with other disorders which remind one to some extent of the saltatory impulses of which I spoke. This coincidence must, however, be very rare, for I am only acquainted with one well-authenticated example—the case recorded by Porter; it is of sufficient interest to lead me to lay before you the principal details. A soldier of twenty-eight years, after one of those desperate races in which terror alone could have supported him, finally pulls up breathless, dripping with perspiration and rain, sinks exhausted upon the wet ground, and loses consciousness. When he was lifted up, and had recovered his senses, he was stiff, he experienced violent palpitation and marked dyspnœa, and his lips were considerably swollen. Some minutes later, the general rigidity disappeared, and was succeeded by rhythmic cramps of the most singularly complex character: the head, carried round by a semicircular movement, turned from left to right, and from right to left, about two hundred times in a minute; at the same time the forearms rose and fell in accordance with the rhythm observed in the rotation of the head, but the patient moved the upper arms freely. In the sitting or recumbent posture, the lower limbs were still; but as soon as the patient endeavoured to rise and touched the ground, his feet began to move in regular time (*mouvement cadencé*), rising alternately on the toes and the heel, and every time the heels struck the ground during these oscillations, grinding of the teeth occurred. These movements went on uninterruptedly so long as the patient was awake; nevertheless, he did not appear to suffer much fatigue from them; the muscles obtained rest during sleep, which was ushered in by a violent trembling. The cervico-dorsal vertebræ were very tender on pressure, and feeding was attended with serious difficulties, owing to the rotation of the head, and the cramp of the masseters. On the ninth day of this strange affection, an eruption of herpes appeared over the right shoulder, and thence, following the border of the scapula, extended to the axilla and half-way down the upper arm. Internal remedies were of no avail; the application of blisters along the vertebral column was rather more useful, in that the patient was enabled after it to maintain the upright position for a few moments. This man was then discharged from the service, and, after having returned to his mountain home, he gradually got well without further therapeutic treatment.(d)

Many lessons are to be learnt from this case. The spontaneous cure proves the absence of cerebro-spinal lesion, notwithstanding the gravity of the symptoms; the influence of the centripetal impression upon the rhythmical raising of the feet is not less clear than in Bamberger's and Guttmann's cases. Lastly, the cause and the onset of the disease are most remarkable, considered with reference to certain pathological affinities. The causes are precisely those of tetanus *à frigore*. The disease commenced with general rigidity; then, instead of ending in tetanus, it underwent a sudden change, and the tetanic spasm was replaced by diffused rhythmic cramps. True, these two morbid conditions are very different, both as regards their clinical characters and their prognosis; yet, for all that, with this case before us, it is difficult not to admit a certain affinity between them, based upon their common pathogenic origin: in the one case, as in the other, the cause being a spinal hyperkinesia.

Rhythmic spasms occur most frequently during childhood and youth; yet they may be developed in the adult, not only as the sequel of some serious disturbance, as in Porter's patient, but also after a simple chill. This was the case in the lady of thirty-five of whom Schützenberger speaks, who was attacked with rhythmic cramps of the muscles on the left side of the neck, notably of the trapezius and sterno-mastoid. The convulsions, beginning at the moment of awaking, were repeated sixty times per minute, drawing the head forcibly towards the left shoulder, which rose at the same moment. A constant current, composed of ten of Bunsen's elements, produced a remarkable amendment.(e)

The ordinary forms of rhythmic spasm do not generally place the patient in imminent danger. This cannot be said of a variety, not yet pointed out, which I have recently had the opportunity of witnessing. A young lady belonging to one of the first families in Florence, remarkable at the same time for the weakness of her physical constitution, and the precocity of her intellectual development, had, from eleven years of age, exhibited some hysterical phenomena; at the same time, emotional impressions had assumed in her a truly morbid predominance: they had invaded, and absorbed, so to speak, every other sphere of cerebral activity, and this condition had awakened in the parents a justifiable anxiety, when, at the beginning of 1871, this young lady, then thirteen years old, was suddenly seized with complete paraplegia, which continues at the present time.

Later on in the course of the same year, fits of sobbing supervened, which gave place to true paroxysms of dyspnœa. The most suitable modes of treatment, especially tonics internally, the water treatment, and electrisation by means of the constant current, were without avail. There even occurred this curious coincidence: that the attacks became longer and more frequent from the moment when electrisation began to be employed. In the autumn, the family went to reside at Pisa, to avoid the comparatively severe winter of Florence, and matters remained almost the same up to the middle of November. Then a new modification supervened, which quickly placed the patient in imminent peril from the prolongation and rapid succession of the paroxysms.

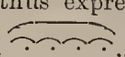
Such was the state of affairs when, on November 27 last, Dr. Galligo did me the honour to summon me to Pisa to see his interesting patient. On my arrival, I had scarcely entered the adjoining room to the one she was occupying, when I stood still with amazement at what met my ear. I was present at one of these paroxysms without actually witnessing it. The silence was suddenly interrupted by a cry, followed, after an interval equal in length to that of the two respiratory movements, by a loud moaning of longer

(c) Guttmann, "Ueber einige seltene Krampfformen" (*Berliner Klinische Wochenschrift*, iv. Jahrg., 13, 1867).

(d) J. G. Porter, "Anomalous Choreic Convulsions" (*Amer. Jour. Med. Sci.*, vol. xlvii., Philad., 1864, page 138).

(e) Schützenberger, "Obs. d'un Cas de Tic Rotatoire de la Tête" (*Gaz. Méd. de Strasbourg*, 1867).

duration. These alternating sounds succeeded one another with a measured regularity of mathematical precision, and produced on the ear an impression which may be accurately represented thus: "ah hoo—ah hoo—ah hoo," etc. There was nothing in these rhythmic sounds that simulated a bark. After having listened to three or four of them, it became certain that they were composed of an inspiration and expiration, both equally noisy, and that in this series of two terms the expiratory noise was of longer duration and higher pitch than the other. These respiratory spasms were repeated three or four hundred times in succession, without any modification in their persistent symmetry. Then the conclusion of the paroxysm was indicated by an expiration of surprising length, so that the last series of the paroxysm might have been thus expressed by the use of a semi-musical notation:



"ah hooooooooo." From its much higher pitch, from its heart-rending character, and from its very length, this closing expiration produced an alarming impression; it seemed, indeed, as though the poor child, worn out by the struggle, was thus making a final and fruitless effort.

Being then ushered into the presence of the patient, I was commencing to speak with her when a fresh paroxysm broke out before my eyes. I then witnessed the confirmation of all that my ear had led me to surmise; and I ascertained, moreover, that during each inspiration the head was slightly raised from the pillow, upon which it again fell at the commencement of expiration, with a movement of partial rotation, causing an inclination towards the right. The final expiration was accompanied with a general depression of very short duration, and then respiration immediately assumed its normal characters. Even at the close of the paroxysm there were no signs of cyanosis. The circulatory, vascular, and respiratory apparatus were perfectly intact; the spinal processes of the vertebræ were not painful on pressure; the region of the ovaries was equally free from tenderness; the cranial bones, and notably the occipital, presented no anomaly. The spasms very clearly depended on hysteria, which had declared itself, you will recollect, for the last few months by complete motor paralysis of the lower extremities.

In possession of these preliminary data, I immediately set myself to find out the mechanism of these singular phenomena, and I obtained the following information:—At the moment when the paroxysm commenced, there was a powerful inspiration; and from the end of that inspiration to the termination of the paroxysm the diaphragm remained completely motionless in the condition assumed after taking a full breath. The epigastric region bulged forward, the lower ribs were elevated as they are at the end of inspiration, and showed no movement, not even an oscillation. The expiration which followed was accomplished by the upper portion of the thorax; and the noisy character of this expiration, which was much more marked than that of inspiration, doubtless pointed to spasmodic narrowing of the glottis. The next and succeeding inspirations, up to the end of the paroxysm, were executed with difficulty by the cervico-thoracic muscles and the superior intercostals. I took pains during several paroxysms to assure myself of the constancy of these phenomena; and then, without forgetting the possible intervention of some accessory pathogenic elements, I deduced therefrom, as the chief cause of the disorder, an inspiratory spasm of the diaphragm, with partial contraction of the constrictors of the glottis. Considering, lastly, whether this symptomatic complexus could be compared with the result of any physiological experiment, I easily reconciled it with Rosenthal's celebrated experiments with reference to irritation of the upper end of the divided pneumogastric nerve; there, too, the diaphragm was arrested after inspiration, and there also this was the cause of the respiratory disturbance. As to the narrowing of the glottis, it formed no obstacle in the way of this comparison, for Budge, Gilchrist, and Schiff all three ascertained that there was narrowing of the vocal orifice under these experimental conditions.

In the consultation which followed my examination, I expounded my views to my learned brethren who were associated with myself in this case—Dr. Galligo, Professor Landi (of Pisa), and Dr. Almansi (of Florence), and I had the satisfaction of seeing them accept my pathogenic diagnosis in every point. With regard to the medical diagnosis, spasms due to hysteria, these eminent practitioners had thus formulated it from the outset, long before my visit. This form, which, so far as I know, has not hitherto been described, might be termed *inspiratory rhythmic spasms*, or *respiratory cramps*.

You easily conceive, gentlemen, whence the danger arises in this case. The nutrition of the patient, naturally delicate, had been interfered with for more than a year, on account of the various phenomena she had experienced. The interval between the paroxysms was so short—barely three or four minutes,—that it was possible to foresee a time when the child could no longer be fed. A more complete constriction of the glottis was to be feared, and hence the formidable symptoms of spasm of the glottis. Lastly, it was necessary also to take into consideration the possible propagation of the disorder to the sphere of the spinal accessory nerve and the cervico-thoracic muscles—a circumstance which would involve sudden death from suffocation. All these fears were well grounded, for during the eight preceding days the duration and frequency of the paroxysms had presented a continuous increase. There was only one favourable fact, and that was the total disappearance of the spasms during sleep, which lasted from eight to ten hours.

There was, then, not a moment to lose,—the treatment must be energetic, and fulfil the twofold indication furnished by the spasmodic hyperkinesia on the one hand, and the condition of nutrition on the other. Past experience, and the formal objection on the part of the family, forbade us to think either of the water-treatment or of electricity; consequently we contented ourselves with the following line of treatment:—The application of ether-spray along the vertebral column; bromide of potassium in increasing doses, so as quickly to reach five or six grammes (seventy-seven or ninety-two and a half grains) daily; to give the medicine night and morning, so as to be able to take advantage of the intervals between the paroxysms for the administration of wine, meat jelly, uncooked meat, and granules of arsenious acid, the daily number of which has been gradually raised to six. Sulphur baths, the use of which had already been commenced by Galligo, completed this treatment, the somewhat unusual complexity of which was amply justified by the urgency of the situation.

Under the able superintendence of Dr. Galligo, the treatment has accomplished satisfactory, although incomplete, results. The paroxysms have become less frequent, and more superficial; they have lost the suffocating character which they at first presented; the intervals of freedom have reached a duration of forty minutes; and (a remarkable fact, upon which Galligo, with just cause, insists in his last letter) the paroxysms cease exactly at sunset, so that between then and the hour of retiring there is a rest of several hours. There is, then, no longer any immediate danger or impending peril: respiration is no longer menaced, alimentation no longer impeded, the nutrition and the strength are progressing—these are real benefits, and the rapidity with which they have begun to manifest themselves entitles me to ascribe them to the influence of the remedial measures; but, on the other hand, the paraplegia persists, the spasms are not subdued, and our last hope is in the establishment of menstruation, which has not yet taken place.

Had this case only possessed the interest of novelty, I would not have detained you upon it for so long a time; but its consideration is of undoubted practical utility, and this is my justification for entering so fully into the details.

As these sheets are passing through the press, I receive, under date June 30, another letter from Dr. Galligo, in which he announces the complete cure of the patient. Not only have the dyspnœa and the spasms disappeared, but the paraplegia has yielded, and the motor power is perfect. Contrary to our expectation, menstruation has not yet been established.

French Medical Deputies.—The total number of medical men elected as Deputies to the present National Assembly on February 20 and March 5 amounts to forty-four, thus constituting a very large representation of the medical profession in that body.

Free Lectures for Artisans in Oxford.—The President and Fellows of Magdalen College, Oxford, have instituted free courses of lectures on botany, zoology, and chemical physics for artisans resident in Oxford. The lectures are under the management of Professor Lawson and Messrs. Chapman and Yule, and will be given during the present and Easter Terms, and throughout the long vacation, on each Saturday evening.

THE TRANSMISSION OF SYPHILIS.(a)

(*Concluded from page* 259.)

The author next proceeds to consider "whether syphilis acquired by the mother during pregnancy is conveyed to her previously healthy fœtus?" He believes that, though this is generally believed, it is accepted rather as a matter of course than as the result of practical and well-considered observation. As the whole question of possible placental infection rests on this point, it is considered at some length. First, even those who support this view allow that it does not occur in every case and Dr. Kassowitz argues that such a transmission is only possible on the supposition that the poison is conveyed by the placental circulation to the fœtus; and if it occur once, that it should always occur. Authors differ as to the exact time of fœtal life when infection takes place, while they all agree that during certain months the fœtus is safe from infection. Such facts, however, only prove that syphilitic mothers can bear healthy children. Seeing, therefore, that certain doubts can now be put aside (the recent syphilis of the mother, and the continued good health of the child), fresh ones arise—viz., the absolute correctness of other data, and chiefly "Was the ovum which developed into a syphilitic child really a healthy one?"

In order that such a kind of transmission have a scientific basis, the following conditions are necessary:—That the health of the father at the time of the coitus be accurately known; that the health of the mother at the time of conception be also known, and the exact time of her subsequent infection be determinable (the infecting sore or some of the earlier secondary symptoms should have been seen by the observer); the syphilis of the child must be unmistakable (premature-born, still-born, or weakly children, or early death without a previous outbreak of syphilitic symptoms, in no way to be considered as conclusive proof of syphilis). In the absence of the above evidence, the cases would be worthless as proofs of syphilis acquired by a mother during pregnancy being conveyed to the fœtus. In all the published cases in support of the theory known to the author, there is not one which conclusively proves this point, and the author therefore denies that it is possible for it to occur. Then, if the mother is to be alone responsible for the transmission of syphilis, how are we to account, in the case of twins, for the fact that one child is often more affected than the other, and that even one child may be entirely free, while the other suffers unmistakably?

The theory of transmission is next considered. It may be stated as follows:—The transmission of syphilis from the parents to the child can only occur in the act of reproduction. Father and mother are alike able to transmit syphilis. The presence of syphilis in one parent, however, is sufficient to transmit it to the child. The infection of a woman after conception has no influence on the transmission of syphilis. Before following out the practical outcome of the above axioms, the author discusses the nature of the syphilitic virus. From the assertion which has been made, that this poison passes neither from a diseased mother to a healthy fœtus, nor from a diseased fœtus to a healthy mother, it might be argued that other poisons ought not to pass—a fact which is disproved by experience. But it is easy to show that this is only an apparent contradiction, due to the inherent differences between the syphilitic virus and the contagium, say of the acute exanthemata. According to our present knowledge, the latter is a particle which can be carried by the surrounding air from one individual to another: the former is contained in a blood-cell or an ovum, and is inseparable from it. It is easy, therefore, to imagine how a mother may imbibe along with the air she breathes the finely divided infectious particles, and how they will reach and infect the fœtus, the mother, meanwhile, remaining free from the disease, because her organism is protected by a previous attack. Syphilitic contagion, however, is quite different—it is a fixed contagion, bound up with and inseparable from the ultimate elements of which the organism is composed. It attaches itself to pus cells and blood cells, while it is well known to be absent from fluids which do not contain organised elements. Pelizzari has conclusively proved this by experiment. He applied, by means of a pledget of charpie, some freshly drawn syphilitic blood to an abraded surface of a healthy man; and to another healthy man he applied the serum after coagulation had taken place—that is, when the fibrinous clot had closed—in all the blood corpuscles. In the first case infection occurred; in the second there was none. It is equally well known that the vaccine lymph of a syphilitic individual may be used without fear, provided it be clear and free from blood cells. If we now review the interchange of maternal and fœtal fluids, we must admit an improbability of any interchange of blood corpuscles: such an interchange is almost anatomically impossible; and this quite agrees with the views arrived at from the clinical point of view.

Not less important is the question, At what period after infection does an individual acquire the power of transmitting syphilis to the offspring? The author answers it thus: From the moment of the appearance of general syphilis, being altogether independent of syphilitic affection of either the testis or the ovum.

Does the transmissive power exist during the latent stages of the disease? No doubt it does, and seems to be quite unaffected by this latency; it begins with the earliest symptoms of general syphilis, and lasts without being subject to any marked variations in power, but decreasing the while steadily in intensity until it gradually dies out. It does, however, very occasionally show remarkable intervals, and these are, no doubt, mostly due to the anti-syphilitic action of mercury. Many undoubted cases are recorded in support of this supposition. Not only has mercury the power of decreasing and even neutralising the intensity of the transmissibility, but also its total duration. Dr. Kassowitz gives a minimum of seven years as the average duration of the power of transmission. He has known healthy children born to parents with the visible symptoms of tertiary disease, and believes that this depends on the length of time which has elapsed since the primary infection: if it be a short time, the children will probably be syphilitic; but if a long time have elapsed, they may be healthy. His views on the unconditional transmission by syphilitic parents are as follow:—That transmission necessarily follows an attack of syphilis, which is not neutralised either by a mercurial treatment or by the lapse of long years; and immunity, even if it ever happens, must be regarded as an extreme rarity. Dr. Kassowitz agrees with Hutchinson and others that syphilis is more frequently conveyed by the father than by the mother. In seventy-six known cases, the father was at fault in forty-three, the mother in ten, and both parents in twenty-three cases.

The remaining chapters of this exceedingly interesting little work discuss the intensity of the transmissive power, the conditions of abortion and premature birth, and the vitality of syphilitic children. They contain nothing new. As to the period of latency in inherited syphilis, Dr. Kassowitz sums up that the appearance of the first exanthem almost always occurs within the first three months. The earlier it appears, the stronger may we consider the dose of the syphilitic poison. Thus, of ten children in whom the exanthem appeared in the first week, eight were the first living children after several preceding premature births; and of thirteen children who developed the exanthem in the second week of life, five were first and five were second liveborn children. The outbreak of the first exanthem in the third month of life is of itself a proof of the diminishing transmissive power of the parents.

Lastly, we have shortly to consider "the relation of hereditary syphilis to other constitutional diseases." In propounding whether syphilis in the parents can in the children assume another form not characterised by the usual symptoms of hereditary syphilis, Dr. Kassowitz remarks that a connexion between the syphilis in parents, and scrofula, phthisis, and rickets in the children, could only be established on two grounds—either by showing that these diseases are more common among children who suffer or have suffered from hereditary syphilis, or among the children of such parents who, though the subjects of syphilis themselves, either as the result of treatment or of lapse of time have outlived the power of transmitting the disease to their children as such. The author, while believing that this condition would favour such constitutional anomalies, cannot accept syphilis as the cause, nor does he believe that syphilis can be transmuted into any other disease whatever. It is scrofula especially which has been largely considered as an altered form of syphilis. Maisonneuve described it as a special form under the term "scrofuloid." The author allows that glandular swellings and caseation are

(a) "Die Vererbung der Syphilis." "The Transmission of Syphilis." By Dr. Kassowitz, Physician to the Sick Children's Institute in Vienna. Vienna: Braumüller.

as frequent, perhaps even more frequent, in children who have had syphilitic manifestations than in the non-syphilitic, and considers it due partly to a lowering of the general nutrition, and partly to the glandular swelling which characterises syphilis as such, though this glandular participation in hereditary syphilis is much less frequent than in the acquired form.

Further, in later life, obstinate forms of tertiary syphilis are frequently met with, which may easily be mistaken for scrofula, though quite distinct and independent of it.

Such is a very brief *résumé* of the author's views on the transmission of syphilis; and while appreciating the great difficulty of abstracting from a book which itself is concisely written, and is both original and critical in its arguments, we hope nevertheless to have laid before our readers the essential points in such a manner as will do justice both to the author and his subject.

FROM ABROAD.

Treatment of Angina Pectoris.

Dr. Brochin, giving an account (*Gaz. des Hôpitaux*, March 11) of a clinical lecture on this subject by Prof. Sée, at La Charité, observes that no one who has not been present at a final paroxysm of angina pectoris can form any but a very imperfect idea of the horrible anguish to which the patient is a prey, and of the perplexities of his attendant in face of the impotence of all his efforts to save him. It is from having known these perplexities that he is always glad to seize hold of any occasions that present themselves with avidity, either of acquiring new light concerning the symptoms, progress, or nature of this affection, or of some therapeutical indication or means of treatment that may prove more energetic, and especially more prompt in its action, than those which have hitherto been at command.

A recent case has given Prof. Sée the opportunity of saying a few words to his class concerning this terrible affection. It was here mild in character, and was supposed by Prof. Sée to be cardiac in its origin. He observed, however, that in these cases we must not base our prognosis on the fact of the cardiac or hysterical origin of the symptoms of angina, for some of them exhibit great gravity, although only proceeding from hysteria; while others, originating and depending on a cardiac lesion, may—as in the present case—present very benign appearances. Dr. Brochin lays stress on the term "benign appearances," as contrasted with real benignity; inasmuch as the case to which he alluded at the commencement, in which the fatal paroxysm was obviously due to cardiac disease, had never before manifested its nature, except by distant and apparently very mild paroxysms, which had scarcely excited the attention of those who surrounded the patient. However, the conclusion Prof. Sée arrives at is that in all these cases we should act with energy and promptitude, whether we have to do with a gouty, hysterical, alcoholic, or cardiac angina. In fact, whatever be its primary cause, the pathological condition is always the same—ischæmia of the heart, accompanied by pain, giving rise to two indications of equal importance. This double indication is most successfully met by the use of morphia, which, independently of its sedative action on the pain, possesses the property of stimulating the activity of the circulation, and consequently of the respiration itself. And beyond contradiction the best means of administering it is by hypodermic injection—all other modes of administration being too slow in their operation. We may inject at one time ten drops of a solution of morphia one-fiftieth in strength, representing exactly one centigramme of morphia; and this may be repeated two, or even three, times in the same day. In order to prevent a return of a paroxysm Prof. Sée is in the habit of prescribing two injections daily during several days, and that even when only a single paroxysm has occurred. The hypodermic injection having met the most urgent symptoms, he usually, when the patient's condition has not been very materially amended, follows it up by the use of chloral, the best of hypnotics, and, after morphia, the most appropriate means for meeting this disease. This he gives in an enema composed of two or three grammes of chloral to 150 of water—first because it is most promptly absorbed in this way, and next because of the great difficulty there is in getting these patients to swallow it. Various other remedies Prof. Sée only notices to reject their employment, such as chloroform, nitrite of amyl, belladonna, and the whole list of antispasmodics. Among all these agents, only one is thought well of by him, and that he does not regard as an antispasmodic—viz., the acetate of ammonia, one of the most energetic stimulants of the circulation, and which also acts very favourably on the respiration. The paroxysm having been relieved, of all the means that have been suggested for preventing its return—dry cupping, blistering, electricity, etc.,—Prof. Sée only retains as likely to be useful the external application of chloroform. Most of the other means are insufficient or useless, and electricity is positively dangerous. The best of all remedies to administer during the intervals of the paroxysms are the bromide of potassium and digitalis—the true regulators of the circulation.

Mortality Returns of the Paris Hospitals.

In reporting to the Hospital Medical Society (*Union Méd.*, February 10 to 29) on the mortality of the Paris Hospitals for the quarter ending December 31, M. Besnier states that it amounted to 2982, being slightly in increase over that of the corresponding quarter of the preceding four years. Casting the eye over the comparative tables produced, we may follow the variations in the mortality of the hospitals in the different months, years, and seasons,—these variations being indeed much less than would be supposed. The regular and normal curve of the mortality, according to season, is very clearly indicated; sinking to a minimum during the third quarter, rising during the fourth, reaching its apogee during the first, and recommencing its decline during the second.

Diphtheritic Affections.—These have proved more numerous and more fatal than at the corresponding quarter of any of the last six years. The total number of these cases admitted during this quarter from 1869 to 1875 has been 703, with a mortality of 73·11 per cent. But during this quarter of 1875 there were admitted 192 cases (the highest number of admissions in any preceding corresponding quarter having been 122), with 144 deaths, or 75 per cent. M. Archambault has communicated to M. Besnier some interesting documents regarding tracheotomy performed for *croup*, derived from the Hôpital des Enfants. In 1875 there were 168 cases of croup operated upon, with 38 recoveries, or 1 in $4\frac{1}{2}$—a result which cannot be regarded as unfavourable, considering that the disease took on somewhat of an epidemic form, no year of the prior ten having furnished more than 106 operations. During the ten years 1866-75 there were 886 operations performed, with 236 recoveries and 650 deaths—*i.e.*, 1 cure in 3·3 operations, or 31 cures per cent. Such a result as this, derived from so many cases over so long a period, is well calculated to favour the performance of the operation. In M. Archambault's own wards, of 58 operations only 11 were successful—*i.e.*, 1 cure in 5, or 20 per cent. During the whole course of 1875 he received into his own wards 23 cases of pharyngeal *diphtheria*, and of these he lost 10; but for the most part they were very severe cases, brought from where the disease was epidemic. An interesting fact is, that of the 23 cases in only 1 was the disease propagated to the larynx; and in 20 out of the 23 cases albumen was found in the urine. The same proportion has been observed in cases of croup. Albuminuria has seemed to be proportioned to the gravity of the disease, although croup may be cured when it is present in a high degree. Its diminution is of good augury.

Small-pox.—The partial isolation of small-pox patients, which the Hospital Medical Society has had such difficulty in obtaining at the hands of the Hospital Administration, has been attended with the happiest effects, although none of the establishments have been rendered completely special. During the eight months that have elapsed since the institution of this improvement, there have been received into the small-pox services of La Pitié, St. Antoine, and the Temporary Hospital, 224 cases, and only 6 cases have appeared within the other wards; these indeed being attributable to the commencement of an epidemic recrudescence. Of the 224 cases, 32 proved fatal, and 182 were discharged. M. Léon Colin reports that no case of small-pox occurred at the Val-de-Grâce during October and November, and only five cases during December, since when the disease has shown no signs of spreading. He remarks also, as a proof of the slight epidemic predisposition prevailing at present, that each of these five cases remained isolated examples of the disease, although they originated

among centres of military populations of from 1000 to 1500 men.

Typhoid Fever.—While this has remained below the mean of preceding years, the annual epidemic of typhoid has presented a considerable autumnal exacerbation, which M. Besnier on several occasions has shown to be the normal and constant circumstance attaching to Paris and places under similar climatic conditions. On examining the comparative tables given for the years 1867-75, it will be found that the last four months of each year furnish a considerable excess of mortality, exhibited in two maxima—the one when the seasonal complications of the thorax intervene, and the other at the commencement of the autumnal paroxysm; the mortality then rapidly diminishing so as to reach its minimum in December.

Treatment of Opium-Poisoning.

From a clinical lecture on this subject, delivered by Prof. H. C. Wood (*Philadelphia Med. Times*, December 25, 1875), we take the following observations:—

The doctor is usually called to these cases in adults during their second stage, that of stupor, with a slow, full, and strong pulse, very slow and deep respiration, warm dry skin, and contracted pupils. In deciding whether to use an emetic or stomach-pump, we should be guided by the form in which the poison has been taken. If this has been fluid, the pump should be used, as the emetic is too slow and uncertain, while the pump will not bring up solid opium. A stomach-pump may be readily extemporised by passing one end of a piece of gum tubing, three or four feet in length, into the patient's stomach, pouring water through the tube until it and the stomach are full, and then dropping the fore-end so as to form a syphon. The stomach should thus be washed out by alternate filling and emptying. An emetic should be quick and active in operation, and leave no depression, so as not to increase the exhaustion of the already paralysed nerve-centres. All preparations of antimony are to be avoided, and one of the best emetics is formed by a heaped tablespoonful of mustard given in a tumbler of water, to be speedily followed, if it fail, by thirty grains of sulphate of zinc, or ten of sulphate of copper. These mechanical emetics can be rarely given in larger quantities, but ipecacuanha may be administered almost *ad libitum*.

"Whether the emetics succeed or not, the indications are to keep up the respiration and prevent exhaustion. If the dose taken be sufficient, the patient is destroyed either by the effect of the drug upon the respiratory centre or by the exhaustion which is secondarily produced; the respiration gradually gets slower and slower, until it may fall to three or four a minute. This deficiency of movement prevents the admission of the requisite amount of oxygen and also the escape of the carbonic acid; the blood becomes more and more poisoned with the latter gas, until at last the narcosis is due not only to the opium, but even more largely to the carbonic acid. The failure of respiration precedes, and also in a great measure produces, the exhaustion; therefore, the first indication is usually to maintain breathing. Happily, we have numerous means at our disposal to effect this. Of these, the simplest is urging the patient to breathe by vehement commands shouted in the ear; and it is really astonishing how great an effect this may have. I have seen deep inspirations follow such orders in one apparently unconscious. For the purpose of aiding this by arousing the patient, shaking and walking are employed, and are often of great benefit. In severe cases they are not sufficient, and flagellation is often used. But here let me impress upon you the uselessness, and often the harm, of carrying these measures too far. I have seen patients after recovery from narcotic poison black and blue from head to foot, and others whose lives were imperilled by the exhaustion from marching for several hours. The use of the *dry electric brush* renders all whipping unnecessary. If the current be very strong, it causes a great deal of pain, and wakes the patient most effectually; and at the same time, if the brush be quickly passed over the body, no trace of action is left. Another and admirable method is the cold douche, which acts first by arousing the patient by the shock to the nervous system, and secondly by directly stimulating the respiration. The patient should be stripped to the waist, and an alternate douche of ice-cold and very hot water dashed over the head, neck, and chest. I have employed the douche in this way in various forms of failure of respiration with the happiest effects."

Prof. Wood does not regard opium and atropia as antagonistic of each other, and yet considers atropia invaluable in opium-poisoning. It should not be employed as an antidote, but as a remedy when the respiration is failing, just as alcohol is used when the circulation is failing. It is a powerful stimulant to the respiratory centres. If given in small doses when the breathing is very slow, the respirations are remarkably increased in frequency, and the carbonic acid being thrown off from the blood, the patient is aroused—restored to consciousness, not by direct, but by the indirect action of the remedy on the nerve-centres. It should always be used hypodermically and in very small and repeated doses—for belladonna-poisoning may be produced by its incautious employment. The dilatation of the pupils is not a safe guide as to the amount to be given.

"You give atropia to stimulate respiration, and therefore let its influence on that function direct you as to its administration. For instance, suppose we had a patient who was in the last stage of opium-poisoning, with respiration down to 4 or 5, and we had exhibited one-thirtieth of a grain of atropia. If in fifteen minutes or half an hour the respiration had risen to 10, we should know that the desired end was being accomplished, and as long as the breathing continued to increase we would give no more. But if the respirations commenced to grow less frequent it would be proper to administer one-sixtieth of a grain, and repeat it every half-hour until the breathing showed the effect, or the dilatation of the pupil warned us that we were approaching the danger-point. The golden rule is—give the least possible quantity that will produce the required effect."

Dr. Wood has not seen any benefit derived from strong coffee, but he believes that caffeia administered conjointly with atropia might be of service, although he has never employed it. In the third stage of poisoning—that of coma and exhaustion, with profound stupor, rapid feeble pulse, distant and often stertorous respirations, moist and cool skin, and contracted or dilated pupil—alcohol should be used with freedom to maintain the circulation, atropia being employed for its cardiac as well as its respiratory stimulant action, and dry external heat used freely to prevent the depressing effect of the lessened bodily temperature. In some cases of opium-poisoning in very young children the symptoms of impending collapse set in very early, and require the free use of alcohol from the commencement. In some very rare cases, when the patient is seen early, and there are excessive symptoms of venous engorgement of the lungs and brain, venesection may be very useful; but in the great majority of cases it is highly hurtful.

When by the above measures the respirations cannot be brought to above six in a minute, and voluntary efforts cannot be induced, artificial respiration should be resorted to, and, indeed, should not be put off too long. Dr. Wood prefers Sylvester's plan, which should be persevered with until long after every cardiac sound has ceased. He considers maintaining respiration by means of galvanism as decidedly inferior to direct artificial respiration, while if prolonged it may become dangerous.

The Dental Hospital.—The annual dinner of this excellent charity took place on the 16th inst., at St. James's Hall, under the able chairmanship of Mr. W. Scovell Savory, F.R.S., and with 110 stewards. The meeting was large and most successful, as well as a very pleasant reunion of metropolitan and provincial members of the dental profession, together with many distinguished visitors.

Small-pox and Cholera in India.—Small-pox and cholera are reported to be prevalent in Southern India. In Madras there were forty-three deaths from cholera in the week ending February 11; and in one day (Tuesday, the 15th) it is said that there were twenty-one deaths, but on the 16th and 17th only eight or ten deaths. It is said that the mortality is quite one in three. Small subcutaneous injections of chloral hydrate are the favourite remedy. Small-pox is extremely prevalent at Bombay. There is great drought over the whole of India, but especially in Mysore. Calcutta is healthy; the death-rate in the week ending February 5 was only 24·5 per 1000 per annum. There were only one death from small-pox and twelve from cholera. When Dr. Fayrer was at Jeypore, in attendance on the Prince, he received a very flattering testimonial from his former pupils there, with a pair of gold earrings and casket of Punjaub workmanship for Mrs. Fayrer. Cholera is bad at Secunderbad, and on February 14 three cases occurred in the 78th Regiment, which is under orders for England.

REVIEWS.

On Paralysis from Brain Disease in its Common Forms. By H. Charlton Bastian, M.A., M.D., F.R.S., Physician to University College Hospital, etc. London: Macmillan and Co. 1875.

It appears to Dr. Bastian strange that so large a subject as hemiplegia receives but small space in our text-books, and finds in this an apology for the appearance of his book, which certainly needs no apology. But, we may ask, does not the consideration of "large" symptoms properly belong to the bedside and the clinical theatre, when the student has at least obtained a general book-knowledge of medicine? We think, however, that students and practitioners will find a value in tabular classifications of the causes of such wide symptoms as hemiplegia, dyspnœa, paraplegia, etc.; and it may be noted that it has been a long time the fashion to test students at examination by questions involving a discussion of those prominent symptoms which are vulgarly classed as diseases.

Among the causes of hemiplegia (which are very well tabulated in Dr. Bastian's book), the author gives a prominent place to emotion. We cannot think with him—perhaps we misunderstand him—that emotion can not only cause a temporary hemiplegia, but a permanent one more or less, by setting up nerve-change and thrombosis of vessels. Of course, emotion may excite such changes in subjects among whom there are greater tendency to decay than to repair, and vascular changes, either partial or general, of a more or less constant character. If emotion can cause permanent brain lesion of coarse kind, ought not its effects to be more often witnessed in hysterical persons, with whom emotion holds greatest sway?

The account given of the arterial supply of the brain is supplemented by an excellent series of diagrams at the end of the book. The author enumerates with care the conditions which make regional diagnosis difficult. In this enumeration lies some hope of our soon attaining power of localising disease within the skull with more certainty; for if the difficulties in the way of research are accurately determined, it is half the battle in favour of research.

The modes of onset of hemiplegia are fully described and dwelt on, especially that onset associated with epileptiform convulsions in disease of the cortex and pons. More might have been said, we think, on the occurrence of convulsion in extension of hæmorrhage from surrounding parts into the ventricles—for it certainly does occur, and all the symptoms at first resemble those of extension towards the surface merely. Dr. Bastian quotes from the observations of Bourneville on temperature in apoplexy in this lecture—a subject to which we shall more fully refer; but we would point out that the low temperature at the onset of a hæmorrhage does not always remain low with accessions of hæmorrhage. In some cases of extension—especially into ventricles or pons—it rises very rapidly to a high position. And we may here state incidentally with what pleasure we found that Dr. Bastian had fully availed himself of the work of French physicians, believing, as we do, that the Germans have been unfairly favoured in this respect of late years. With the high temperature above mentioned there is also frequently a most profuse perspiration—as profuse, perhaps, as in any disease known,—a co-existence of symptoms not a little remarkable, and very useful diagnostically. The author passes on to a description of "typical" hemiplegia at the end of this lecture. A remarkable and interesting symptom—the condition of the pulse on the hemiplegic side—Dr. Bastian does not refer to. It was pointed out long ago, we believe by Sir William Jenner, that on the paralysed side the pulse becomes abnormally full and voluminous—a state of vessel which may be present for a very long period. Diagnostically this occurrence might be of importance in some cases. The comparison, also, of local thermometric and arterial states would be of much interest. In regard to another symptom of the ordinary hemiplegic attack, we are inclined to think that the orbicularis palpebrarum is paralysed much more frequently than has occurred in Dr. Bastian's practice; the paralysis only declaring itself in the fewer and less firm wrinkles on the side affected when the patient attempts to close the eyes forcibly. Here we may note the importance of not being misled by acquired or congenital inequalities of the face, to which Dr. Bastian briefly alludes. Such are very common, and lead the careless observer to erroneous diagnoses, —even in the young, from loss of teeth or the habit of eating on one side, they are met with; while many things give rise to them in the old—in the very persons to whom hemiplegia is common.

Dr. Bastian, avoiding controversy, accepts Dr. Broadbent's view as to the cause of exemption from paralysis of bilaterally-acting muscles in hemiplegia; and there is no doubt the theory has much to recommend its general acceptance. But exceptions to the rule of exemption do occur; and, on the other hand, muscles which, though used voluntarily in a great measure, still act together in an involuntary way, so to speak, very often—as the muscles of the corner of the mouth —do not escape, but are very commonly paralysed. It is true that the neck muscles and those of the eyes and trunk are not often affected; yet sometimes, and even when the disease is severe only as to the extent of the paralysis, they may be. For example, there may be a remarkable loss of elevation and expansion on the affected side of the chest—indeed, sometimes the business of respiration would appear to be almost entirely one-sided; of course this occurs more evidently in rapidly fatal cases of hæmorrhage. The palate not infrequently is thrown into folds on the affected side, and the uvula deviates even in simple cases, though these muscles certainly act bilaterally and involuntarily, as in respiration.

The author extends Dr. Broadbent's theory to the sensory system, and discusses the subject with much clearness and strength, though briefly. He believes that the centres of common sensibility are really in the posterior parts of the pons Varolii. With regard to this particular part of the nervous centres, indeed, are scattered throughout these pages many valuable observations throwing much light on their physiology, and likely, if followed up, to aid us much in the regional diagnosis of cerebral lesions. As a great assistance to the study of affections of particular parts, and of the account the author gives of the implication of cranial nerves, we should advise the reader to draw for himself rude diagrams of the decussations in the pons and medulla. A rusty anatomy is much benefited by such a proceeding.

Nutritive changes occurring in hemiplegia form an interesting subject, and illustrate well how far pathology has advanced of late years, and how usefully it can be applied clinically to disease. In most works these changes are unnoticed, or simply hinted at; more welcome, therefore, is the excellent account which Dr. Bastian gives. Following Brown-Séquard and Mr. Callender, he believes that these changes are most apt to supervene on lesions of the right hemisphere—that is, in left hemiplegia. Thus the right cerebral lobes are accredited with a function in excess, at any rate, of that of the left. The lecturer in another place, anent this subject, says that Dr. Hughlings-Jackson is of opinion that mental disturbances are most marked in lesions of the right posterior lobes, contrary to the usually accepted view. The analysis as to the frequency of hysterical paralysis on the right and left sides is very striking. Out of 121 cases, Brown-Séquard (quoted by the lecturer) found the hemiplegia in ninety-seven had been on the left side. This must be something more than accidental, and indicative of greater change in the disease than is commonly supposed; or, at any rate, "of peculiarities of function pertaining to the right hemisphere."

We have not space for a notice of each of these lectures, but we feel bound to allude to the still unsatisfactory diagnosis of the different forms of coma. Medicine has advanced but little in this direction, so that Dr. Bastian is obliged to repeat simply what has been often said. And all that has been written is, as a rule, of but little use in cases of difficulty, for the simple reason that all the diagnostic differences given by authors are too frequently unattainable—for example, in the casualty wards of hospitals. A great responsibility rests with the physician, on whom the labour of diagnosing amongst coma of hæmorrhage, opium, alcohol, etc., is thrown: so great, indeed, that it is best to err in favour of the former, and decline to adopt violent measures in treatment. It is not pleasant to find that the man whom you admitted, *supposed* to be drunk, and whom you treated by the stomach-pump, etc., died a certain number of hours after admission, and presented, post-mortem, evidences of "hæmorrhage into corpus striatum, with extension into the ventricles," that extension being not improbably the effect of the violent treatment.

Is not the thermometer, if its results be recorded in a number of cases, likely to be of use in this direction? Scattered throughout these lectures are several very valuable notes as to the value of the thermometer in observations,

but no attempt is made to utilise them for the purposes of diagnosis of the more common forms of coma. We suppose the subject is not sufficiently worked out; but if, as Bourneville (quoted by the lecturer) says, there are four classes of hæmorrhagic coma thermometrically, in all of which there is initial lowering of temperature, followed, if death do not occur within a few hours, by a considerable rise, have we not good grounds for hoping that greater results might follow the steady application of this method of information? At any rate, the thermometer would sometimes (for it is cases lasting a few hours which are difficult as a rule) give us positive results, though, of course, negative evidences might be of little service. The case is simply this: if in hæmorrhagic forms of coma the temperature may, and often does, run high —even as high as 110° Fahr.—while in poisoning by alcohol or opium it does no such thing, is not the thermometer calculated to be of decided service in the diagnosis of these states? Bourneville has proved the value of the instrument in the diagnosis of uræmic coma, and Dr. Bastian says that in certain hemiplegic conditions (so-called congestive attacks) the temperature rises from the first. The lecturer's chapter on pathological diagnosis is exceedingly well worthy of attention, though we should like to have seen the results of various thermometrical observations concentrated, as it were, for the purposes of removing the "*opprobrium medicinæ*."

To treatment few pages are devoted, but from what is given it is clear that much may be done in hemiplegia. Attention to so-called trifles, where we cannot meet the actual disease, is never more serviceable than here; and this attention is particularly demanded, because friends are apt to become agitated and fussy in the suddenness of the attack and the gravity of the symptoms, and worry the patient to death by overdoing. We remember being taught that if called to treat a person "struck with apoplexy" in a hay-field, the best thing we could do would be (if possible) to leave him lying where he fell, to raise his head and protect him from the weather. This really means a great deal, and if extended to the treatment of apoplexy through a number of minute details, would take up many more pages than Dr. Bastian has devoted to treatment. He has given an excellent *résumé* of what we know is useful to our patients. In conclusion, we cordially recommend the lectures as likely to enlarge our views on the study of brain diseases, both clinically and pathologically.

The Madras Manual of Hygiene. Compiled, under the orders of Government, by Surgeon-Major H. King, A.M., M.B., Ex.-Sch., Senior and Junior Moderator, T.C.D.; Professor of Chemistry, and some time Lecturer in Hygiene, Madras Medical College. Madras: Printed by E. Keys, at the Government Press. 1875.

We owe an apology to Surgeon-Major King for not having sooner directed attention to this excellent manual. In his short preface he modestly calls his work an "elementary text-book," and states that it "makes no pretence whatever to originality"; but it is, at least, a valuable and very handy compilation, the result of great and careful labour; and only pressure on our columns has delayed our recommending it to the notice of *all* army medical officers, though its value will, of course, be greatest to all who are serving, or may be called on to serve, in India. The subjects treated of in the eleven chapters composing the body of the work are—air, water, food, soils, dwellings, clothing, exercise, climate and meteorology, military hygiene, and statistics; while in five appendices to the work a large amount of very useful information is given, in the shape of notes and tables on the waters, dietaries, soils, climates, and statistics of the Madras Presidency. As an example of the thoroughness with which each subject is handled, we will take the chapter on water. First its impurities are considered: their kind, whether suspended or dissolved, gaseous or solid, organic or inorganic; their effects, the means of detecting them, and the means of removing when removable; then the sources of water-supply, the quality of water obtainable from them, and the probable quantity, are considered; and the quantity necessary for food, washing, and sewerage; then storage and distribution are treated of; and, lastly, the indications of the presence of water, and the search for it in an unknown country. All the subjects dealt with are treated with similar thoroughness; and though, as the work is by no means a large one, and was compiled primarily as "an elementary text-book for the use of the students of the Madras Medical College," it has been written with great regard to brevity and conciseness, yet the information and instructions are very plain and clear, and so full as to make the work eminently practical and useful.

GENERAL CORRESPONDENCE.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Letter from Dr. William Kebbell.

[To the Editor of the Medical Times and Gazette.]

Sir,—In one of the leading articles of the last number of the *British Medical Journal* I find the editor suggests "a personal conference" between the Council of the Association and the medical men of Brighton as "the most hopeful way of arriving at an amicable solution." It is far from my wish to throw any impediment in the way of any such conference; but before it is agreed upon I may be permitted to remind the Council and members of the Association that the opposition to the next annual meeting taking place in this town did not originate at the late meeting of the local medical men; nor does it depend only upon the question of the addresses.

So long ago as August 28 last a letter from me appeared in the columns of the *Lancet*, calling the attention of the Council and members of the Association to the feeling which then existed amongst the profession at Brighton respecting the proposed meeting of 1876, from which I beg to make the following extract:—"My impression is, that if the opinion of the profession were now taken upon the question (of the annual meeting), three-fourths would be found to give their votes against it." This letter was confirmed by Mr. Bramwell in a subsequent number of the same journal.

I am not aware that the opinions of the medical men of Brighton have changed since the above date; and fear accordingly that if the Association still persist in their intention of coming here in August next they will be far from meeting with a cordial reception from their local professional brethren —a state of things, I imagine, unexampled in the history of this or any kindred society.

I am, &c., William Kebbell, M.D.,
Senior Physician to the Sussex County Hospital.

Brighton, March 14.

LONDON MEDICAL MISSION.

Letter from Dr. A. P. Stewart.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has only now been called to the leading article on "A Medical Mission" in your issue of the 4th inst. Had I known of it sooner, a week should not have elapsed without a few words of explanation and remonstrance from me. I will not discuss with you such mere matters of opinion as the style and phraseology of the report, for that which, in reference to spiritual work, is "simply repulsive" to one man, may appear seemly and appropriate to another. But I consider it my duty to vindicate Dr. Saunders, whose friendship I account it an honour to possess, from your very severe strictures by a simple statement of facts.

Dr. Saunders is not in any sense an "irresponsible individual." He was cordially invited to occupy the post of Superintendent of the London Medical Mission by the large committee which had for some time been vainly endeavouring to obtain the services of one who should rescue the metropolis from the reproach of doing nothing in a department of missionary enterprise which the experience of Edinburgh, Liverpool, and Manchester at home, and of every existing mission to heathen lands had proved to be most fruitful of blessings both to the bodies and the souls of men. In common with all the other members of Committee, I firmly held the principle—from which, I apprehend, you do not dissent—that "the labourer is worthy of his hire." We also felt that, as it was a question not of Dr. Saunders "indulging a whim" for his own gratification, but of our calling him to an important work, involving the devotion of the whole of his time, much self-denial, and hard—not to say repulsive—labour among the sick poor of St. Giles's, we could not "offer burnt-offerings to the Lord our God of that which cost us nothing." We therefore thankfully welcomed Dr. Saunders, and gave as large a salary as the funds permitted; though, we all felt, very inadequate. That salary

(£300) he, of course, retains. If it had been an ordinary dispensary, you would have said we were setting an example worthy of universal imitation.

Under Dr. Saunders's earnest and zealous management—all earnest and zealous men are liable to be thought "sadly injudicious"—the Mission prospered so greatly, that the Committee, after repeated meetings and discussions, resolved, and declared in a document which I signed along with others, that it was "desirable that the entire charge of the work should be given to Dr. Saunders," who accordingly accepted all the responsibility of the Mission from March 25, 1874. A better proof of their thorough confidence in Dr. Saunders than is given by this resolution it would be difficult to imagine. But the same fly-leaf at the commencement of the report for 1874—which, I suppose, informed you of the resignation of the Committee—contains also the announcement that eight gentlemen (all but one members of the Committee) had been associated with Dr. Saunders as trustees for the new premises in Short's-gardens, showing not only that Dr. Saunders retains the hearty sympathy of the founders of the Mission, but that the trustees retain the power of interference in the event of any irregularity or departure from the well-defined objects of the trust. Through a mere oversight the names of these gentlemen have not been reprinted in last year's report. One of them, Sir Thomas Beauchamp, has gone to his rest; but when I mention that among the survivors are Mr. Robert Baxter, Mr. Hugh M. Matheson, and Mr. James E. Mathieson, I feel that I have given a very high guarantee for the satisfactory management of the institution.

An audit by a gentleman so very well known as Mr. James E. Mathieson (for many years a partner in one of the Lombard-street banking-houses) might be supposed sufficient, even for the most punctilious, and would, I apprehend, be accepted in the City as fully equivalent to a professional audit, though he is himself of opinion that it will be advisable in future "to employ an official auditor, as the feeling grows in favour of such audits, even where there is no difficulty in the accounts." He expressly authorises me to state that, in making the audit, he looked carefully into the expenditure, and considered the salaries as very moderate, regard being had to the rapid rise of all kinds of wages, except those of professional men, in these—to people who unfortunately have to pay—evil times. I might content myself with making this statement on the part of the Trustee-Auditor, but I agree with him that all the items should be frankly stated, premising, merely, that *the whole time* of each worker is required for Mission purposes. What those purposes are, anyone may learn on visiting the Mission premises, as announced on the cover of the report, any Monday, Wednesday, or Friday afternoon, at a quarter to one. Perhaps a little inquiry on the spot might have obviated the necessity of much waste of good ink and paper. The salaries are as follows:—Dr. Saunders, £300; Assistant, £150; Secretary, £35; Three Nurses, £90; Dispensers, £52; Porter and Housekeeper, £60; total, £687. Yours, &c.,

75, Grosvenor-street, March 14. A. P. Stewart.

*** We are heartily glad to publish Dr. Stewart's letter, though we should have been better pleased to have heard Dr. Saunders himself. Our remarks were founded, as we plainly stated, on the report for the year 1875. We were aware that there had been a committee, and that this committee had—unwarrantably, as we thought—resigned, leaving under the sole responsibility of Dr. Saunders funds which had been collected in their name. Dr. Stewart tells us certain gentlemen are associated with Dr. Saunders as trustees for the premises, but, as far as we can make out, Dr. Saunders has whole and sole control of the finances of the concern, even to the extent that his receipt shall be sufficient for any sum left by will in aid of the institution; we therefore must hold we were quite justified in making use of the term "irresponsible," as applied to Dr. Saunders.

The latter part of Dr. Stewart's letter simply concedes all we asked for. We are very far from wishing evil to the London Medical Mission. By all means let Dr. Saunders be paid £300 a year—we fully agree that "the labourer is worthy of his hire"; only we repeat that it is not well that a man should pay himself out of trust-funds,—it is not well that a man should be deprived of the support which a powerful and responsible committee can give him. And in bringing this forcibly under the notice of such a man as Dr. A. P. Stewart, we are sure we win half the battle. Finally, if in our remarks on the wording of the report we have offended anyone, we are heartily sorry: such was far from our intention.—Ed. *Med. Times and Gaz.*

THE TITLE OF "DOCTOR."

[To the Editor of the Medical Times and Gazette.]

Sir,—The question has been lately mooted, whether licentiates of the Royal Colleges of Physicians, as such, have a right to the title of Doctor, but in the discussion that has ensued no one, as far as I have seen, has referred to the legal decisions on the subject. It was, however, decided long since, by Lords Ellenborough, Mansfield, and Denman, that "Physicians are Doctors"; and as licentiates of a College of Physicians are necessarily Physicians, they must also be, according to these judgments, "Doctors." Lord Chief Justice Coke went farther than this, for he stated that "licentiates of the London College of Physicians are 'Doctors of Physic.'" What in fact, is the meaning of "Medicinæ Doctor" but *Doctus in Medicinâ;* and if a licentiate be not *doctus* he has no right to be a member of any college. It may, however, be thought that the Medical Act, passed since, precludes the assuming a title different from that under which the individual is registered. Such is not the fact. In the case of Ellis *v.* Kelly, in the Court of Exchequer (November 14, 1860), the Chief Baron (Bramwell) gave it as his opinion, that "a man with an Erlangen degree might call himself 'Doctor' although *not registered* as such."

London, March 6. I am, &c., Lex.

The following letter, addressed to Dr. Wyllie, has been sent to us for publication:—

"Oxford, February 22.

"Sir,—My attention has been called to two letters in the *Lancet* of the 19th inst. (one from Dr. Cumming, the other from yourself) upon a subject on which much has been printed of late, as formerly, in that and other journals—the Edinburgh College of Physicians and the title of 'Doctor.' I trust it will be sufficient that I address this to you, the Secretary of the College, as I conclude that you are sufficiently in communication with Dr. Cumming to be able to make him acquainted with the contents, without trouble to yourself.

"You are aware that I am a Member of the College, and that I do not call myself 'Doctor.' But I claim the right to do so; and I certainly should, if I wished it, notwithstanding Dr. Cumming's assertion that it is a 'false title'—an assertion, I take the liberty of adding, without a particle of evidence to support it.

"In your letter written as the Secretary of the College you say that you always tell the licentiates that the title of 'Doctor' 'legally belongs only to those who hold the degree of M.D. from a university.' Be kind enough to refer them to the statute or judicial decision which declares the law to be so.

"The Secretary of the College ought to be aware that the Archbishop of Canterbury has long had the power, and still holds it, of creating Doctors of Medicine, and that the Doctors so created have as full a right to the title of M.D. and Doctor as 'those who hold the degree of M.D. from a university.' The honour so conferred by the Archbishop—whether title, degree, or position, *status*, *gradus*, or *dignitas*—is not now, as before the Medical Act of 1858, a qualification for practice; but the *right* to the *title* is the same as ever—it is unquestioned, and it is valid in law. The worth of it—or, indeed, of any title—is not the matter in question.

"Dr. Cumming, if he wishes to make good what he has written, should point out for the information of physicians generally, and especially for the correction of 'the wilful error,' as he calls it, 'of those licentiates who have taken the false title,' why it is more false for a Physician to style himself Doctor than for a surgeon, apothecary, or other professional man to call himself Mr., without holding the degree of M.A. from a university. There is surely less falsehood in it than in styling himself or any of his friends esquire, or in allowing himself to be so styled by others, without being in possession of an office of honour under the Crown, to which only such a title belongs of right.

"It has always been the custom in England to call a Physician practising medicine Doctor, as it has also been the custom to call a surgeon, or apothecary, or a gentleman, Mr. It is a title or mark of designatiou given by courtesy, and, surely, it may be said without fear of contradiction, that those who do not give it are not courteous. This is the sum of it.

"In strictness of law, perhaps, the universities cannot make a physician, as they cannot make a gentleman. But their graduates in medicine—Bachelors and Doctors equally—were recognised, if they wished it, as Physicians; and those to whom the College of Physicians gave the right, under charters confirmed by Parliament, *tam docendi, quàm exercendi, Scientiam et artem Medicam*, were recognised in society, and were addressed as Doctors, without a thought or suspicion that there was anything dishonourable or illegal in the practice. No more falsehood was seen in it than in the courtesy by which the younger sons of a duke or a marquis (Lord Edward Fitzgerald, Lord Henry Petty, Lord John Russell, and Lord Charles Wellesley) were called Lords; or the judges of your Courts (Lord Monboddo, Lord Auchinlech, and Lord Medwyn) were honoured with a similar designation, without being in possession of a peerage. "I am, Sir, your faithful servant,

"Dr. Wyllie, M.D., Edinburgh. E. L. Hussey."

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, March 10.

Sir William Jenner, Bart., K.C.B., M.D., D.C.L., F.R.S., President, in the Chair.

Successful Case of Gastro-Enterotomy (Artificial Anus in Small Intestine).

Mr. Maunder read an account of a case of intestinal obstruction which he had attended in consultation with Mr. F. Gordon Brown, of Finsbury-circus. The history of the case was as follows:—The patient, a man sixty-eight years of age, of costive habits, passed some blood on two occasions per anum about six weeks ago, without any apparent cause. He had for some months suffered from borborygmus. His general health was not good; his pulse was feeble and intermitting, and his lower extremities and nose were frequently cold and blue. Has had occasional attacks of gout. On October 23, 1875, he consulted Mr. Gordon Brown for constipation and great uneasiness in the bowels. A mild aperient relieved him. On the 28th he saw Mr. Brown again, and made a similar complaint. On examination the abdomen was found to be distended and tympanitic, especially in the centre; while the regions occupied by the colon were markedly flat. A tumour could be detected on deep pressure, situated somewhat to the left of the umbilicus. The patient looked anxious and felt sick. Two senna draughts were administered; he had previously taken a large number of aperient pills. The next morning he was no better, and he complained of great pain round about the umbilicus and towards the right iliac fossa. The pain was paroxysmal, recurred constantly, and was so excessive that each time it came on he felt as if it would be impossible to bear the next attack. Temperature 97·5°; pulse 68, as usual. On October 29, at 2 p.m., Mr. Maunder saw the case. Hiccough had set in. A copious stimulating enema was administered. Evening: Pulse 100, and feeble. The pain in the abdomen was severe, and the tenderness had increased towards the right side. An O'Beirne's tube was introduced on October 30, and about five pints of warm water, medicated with a little brandy, were readily injected, but without satisfactory result. Mr. Maunder agreed with Mr. Brown that the large intestine was empty, and that the cause of obstruction was very likely a growth seated in the wall of the bowel, and probably somewhere about the lower part of the ileum. Belladonna suppositories were ordered, and seemed to give relief to physical pain, and to procure sleep. Hiccough continued. October 31: No better. November 1: Bowels still unrelieved; no flatus; vomiting commenced; tympanites has increased; hiccough continues. Possible relief by operation was suggested, but declined. November 2, 11 a.m.: Is weaker, with an anxious, sunken countenance; the abdomen is more distended, jutting forward at the umbilicus; still vomits. Small hopes are entertained of his recovery. November 3: Has rather gained ground than otherwise. Dr. Strange Biggs (a relative of the sufferer) having joined in consultation, it was agreed—the patient now having consented—to make an artificial anus in the small intestine in the right iliac region. 3.30 p.m.: Operation by Mr. Maunder. Somewhat below the level of a line drawn between the antero-superior spine of the ilium on the right side, and the umbilicus, a longitudinal incision was made, about the length of the ungual phalanx of the thumb (an inch and a half), over a coil of distended bowel, dividing, layer by layer, skin, fasciæ, muscles, and, lastly, peritoneum to the extent only of some three-quarters of an inch. Bowel now presented, but did not protrude in the least; to allow it to do so, in order that some superficial sutures might be introduced to fasten it to the margins of the wound, a minute opening was made into it with the point of the scalpel to set free pent-up gas. This rapidly escaped, and as the bowel began to collapse the operator seized that part with the aperture in it with a pair of forceps, and, drawing the viscus slightly forwards, gave it to his assistant (Mr. C. F. Hawkins) to hold, while he introduced on each side a fine suture. Three silver wires, to be converted hereafter into six sutures, were passed through the edges of the wound and across the bowel, and then this latter was opened in its long axis sufficiently to admit the point of the index-finger. A large quantity of gas immediately escaped, and was soon followed by an abundant flow of semi-solid, rusty-black fæces. Immediately after the operation the temperature was found to have dropped 1·5°; sickness and hiccough ceased. 11 p.m.: Patient expressed himself greatly relieved by the operation. November 4, 10 a.m.: Mr. Mercier (House-Surgeon of the London Hospital) sat up during the night with the patient, who slept well. The pulse varied from 60 to 100. Abdomen flattening. 10 p.m.: Passed a comfortable day. Temperature 97°; pulse 60. Has eaten some bread-and-butter. November 6: Mr. Price (student of the London Hospital) watched the patient during the night. He took his nourishment well. Temperature normal. November 16: Sat up out of bed today (the thirteenth after operation). December 17: Patient has gained flesh. He says he is in better health than he has been for many months. The passage of fæces is controlled by a hollow indiarubber plug, devised by Mr. Brown for that purpose [similar to one exhibited]; it is worn within the bowel without the least inconvenience. In his remarks on the case the author said that for the moment the history concerning the persistently sluggish nature of the patient's bowels led one to hope that an accumulation of fæces might be the cause of his discomfort; but the absence of distension in the line of the colon, and the ready injection of five pints of fluid with small material results, quickly dissipated this, and likewise compelled us to accept for the seat of obstruction probably a point not lower in the alimentary canal than the cæcum—possibly higher. The nature of the obstacle was doubtful, but the fact that the anus and the rectum were both healthy, and that the patient never had hæmorrhoids, and yet on two occasions recently blood had been voided, coupled with the fact that a tumour could be made out with moderate distinctness (the existence of which has been confirmed since the operation), led to the suspicion that a growth, probably malignant in character, had invaded the wall and obstructed the channel of the intestine. Again, the absence of great distension, and the comparatively early vomiting, made it reasonable to suppose that the obstruction was not lower than the point already indicated. At the same time the disease must be regarded as chronic in its character, and certainly non-inflammatory, the temperature never being above normal; and thus it was possible to eliminate, as probable causes of obstruction, every variety of internal strangulation and ileus. With regard to treatment, very little was advisable, and that little without much hope of success. Supposing the calibre of the bowel to be narrowed by a growth in its wall, there yet might be a channel along which fluid, but not solid, fæces could pass, and with that view belladonna and sulphate of magnesia were administered. Vomiting having set in, he was fed by the bowel alone. On the next day, having rallied, an immediate operation was urged as his only chance. The operation was somewhat similar to that which Mr. Maunder advised when meeting in consultation Dr. Sutton and Mr. McCarthy in February, 1872 (*Medico-Chirurgical Transactions*, vol. lv.): Mr. McCarthy performed it successfully on a male adult fifty-two years of age; it consisted in opening the ileum. Both Trousseau and McCarthy have shown that this bowel will be reached in this region—an important fact as regards the nutrition of the patient. The great principle of practice upon which Mr. Maunder insists is non-interfere-

with the general contents of the abdomen. A knuckle of bowel having been exposed, that alone is to be manipulated. No particle of the intestinal contents must enter the peritoneal cavity; and therefore the utmost care must be had to plug the wound with the protruded bowel. It is noteworthy that gastro-enterotomy (artificial anus in the small intestine) is not even alluded to in some recent English works on surgery—probably because it had been regarded as too dangerous to life, a sufficient distinction not having been drawn between the operation now under consideration and gastrotomy, in which search is made for the obstruction. In this search lies the danger. Another reason is the supposed uncertainty at what distance from the stomach the small intestine would be opened, and early death by inanition (erroneously) expected. In the present instance the excreta are of a brown colour, and all but solid. February, 1876 : The patient has gained flesh, is in capital health, and goes about as usual. With one exception, the author could learn by inquiries among professional brethren of no other instance of recovery in the history of British surgery. In two cases only had he recommended this operation, and in both it had been successfully performed.

Mr. Gordon Brown said the patient had improved very much since. He can now walk well, and finds no trouble from the instruments used as plugs. The bowels were open every day by the injection of a little hot water.

Mr. T. Smith had a similar case. A man had been severely wounded in the abdomen by an axe, but recovered from the effects of the injury. After a time he became liable to attacks of constipation, which were relieved by croton oil or other strong purgative. Ultimately these ceased to have any effect, and he was called in. He found a well-marked scar on the abdomen, and suspected that the bowel had become adherent there. This, on opening the abdomen, he found to be the case; but operation came too late, and the man died.

(*To be continued.*)

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 9:—

Dutton, Edward George, Peel Lodge, Hammersmith.
Hallsworth, Francis Arthur, Atherstone, Warwickshire.
Iles, Alfred Robert, Fairford, Gloucestershire.
Le Quesne, Edwin Joseph, Metropolitan Free Hospital.
Thurstan, Edward Paget, Guernsey.

The following gentlemen also on the same day passed their primary professional examination:—

Harvey, Joseph Jarrom, Queen's College, Birmingham.
Harris, Spencer Clabon, Westminster Hospital.
Meek, John William, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Coghill, J. G. Sinclair, M.D., F.R.C.P. Edin.—Physician to the Royal National Hospital for Consumption at Ventnor, as colleague to Dr. Arthur Hill Hassall.

Sewill, Henry, M.R.C.S., L.D.S.—Dentist to the Clergy Orphan School.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Inspector-General of Hospitals and Fleets James John Louis Donner, M.D., has been placed on the Retired List of his rank from the 5th inst.; Surgeon Anthony Gorham, M.D., will be promoted to the rank of Staff-Surgeon, with seniority of the 9th inst., subject to his passing the qualifying examination.

India Office.—Her Majesty has been pleased to approve the following admissions to her Majesty's Indian Medical Service:—To be Surgeons—Bengal: Patrick Alexander Weir; Peter Johnson Freyer, M.D.; Percy de Haga Haig; John Lewtas; and John O'Neill, M.D. Madras: Edward Ferrand; Francis Hopkins Pedroza; and Charles Henry Day. Bombay: John Wilkins Clarkson; and Joseph Parker, M.D.

BIRTHS.

Bromley.—On March 7, at Castle Hedingham, Essex, the wife of J. B. Bromley, M.R.C.S., of a daughter.

McClure.—On March 11, at Worle, Somerset, the wife of Thos. McClure, F.R.C.S.I., of a son.

Nunn.—On March 8, at Maplestead, Bournemouth, the wife of Philip W. G. Nunn, L.R.C.P. Lond., of a daughter.

Spence.—On March 4, at Aberfeldy, Bournemouth, the wife of J. A. W. Spence, F.R.C.S., Surgeon 40th Regiment Madras Native Infantry, prematurely, of a son.

Venning.—On March 9, at 87, Sloane-street, the wife of Edgcombe Venning, F.R.C.S., 1st Life Guards, of a daughter.

MARRIAGES.

Fox—Sacré.—On March 11, at St. Stephen's, Chorlton-on-Medlock, Manchester, Richard Dacre Fox, F.R.C.S. Eng., of Manchester, to Mary Augusta, third daughter of Charles Sacré, C.E., of Ardwick.

Hyde—Cooper.—On March 9, at the parish church, Beckenham, Edward Forrester, second son of the late Clarendon Hyde, surgeon, of Loughborough, to Eliza Ann, daughter of the late Thomas Cooper, of Wimberley House, Fulham.

Middlemiss—Whitson.—On March 8, at St. Andrew's, N.B., George Middlemiss, L.R.C.P., of Darlington, to Elizabeth Freer, eldest daughter of the late Rev. John Whitson, M.D., of Essendy, N.B.

Turner—Davenport.—On March 9, at St. Nicholas, Brighton, Theophilus Bryett Turner, M.R.C.S., second son of the late Rev. Thos. Turner, M.A., Rector of Port Royal, Jamaica, to Edith, younger daughter of J. T. Davenport, Esq., of Wyndham House, Brighton.

DEATHS.

Gibney, Elisabeth, widow of the late Sir John Gibney, M.D., on March 8, aged 89.

Giles, Samuel, M.D. Lond., late of 214, Lewisham High-road, on March 14, at 6, Churchfields, Margate, aged 43.

Mason, Charles Ignatius, L.R.C.P., at Surbiton-hill, on March 8, aged 47.

Nayler, George, F.R.C.S., of 3, Savile-row, W., at Brighton, on March 9, aged 48.

Sheffield, R. L., F.R.C.S. Edin., Surgeon to the Metropolitan Free Hospital, and Assistant-Surgeon to the City Orthopædic Hospital, on March 3, aged 33.

Simson, James, M.D., F.R.C.S.E., at 3, Glenfinlas-street, Edinburgh, on March 8.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bermondsey.—Medical Officer of Health. Applications, with testimonials, at the Vestry Offices, Maltby-street, on or before April 1.

Birmingham General Hospital.—Registrar and Pathologist. Applications on or before March 31.

Charing-cross Hospital.—Physician or Surgeon for the treatment of Diseases of the Skin. Applications on or before March 28.

Christchurch Union.—Medical Officer for the Eastern District. Applications, with testimonials and qualifications, to be delivered at the Union Board Room, before twelve o'clock at noon on March 27.

General Infirmary, Leeds.—House-Physician. Must be duly qualified. Applications on or before March 21.

Great Northern Hospital, Caledonian-road, N.—Physician. Must be duly qualified. Applications, with testimonials, on or before April 4.

Hospital for Diseases of the Throat, Golden-square.—Physician. Applications on or before March 25.

Lisknaskea Union.—Medical and Sanitary Officer for the Brooksborough Dispensary. Applications on or before March 21.

Manchester Royal Infirmary and Dispensary, and Lunatic Asylum.—Honorary Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before March 25.

Nottingham Dispensary.—Assistant Resident Surgeon (single). Applications on or before March 20.

Suffolk Lunatic Asylum.—Medical Superintendent. Applications to the Clerk of the Peace, County Hall, Ipswich, on or before April 4.

University of London.—Eighteen Examiners: two in Chemistry, at £175 per annum each; two in Medicine, at £150 per annum each; two in Surgery, at £150 per annum each; two in Physiology, etc., at £150 per annum each; two in Anatomy, at £100 per annum each; two in Botany, at £75 per annum each; two in Obstetric Medicine, at £75 per annum each; two in Materia Medica, etc., at £75 per annum each; and two in Forensic Medicine, at £50 per annum each. Applications on or before March 28.

Walsingham Union.—Medical Officer for the Fakenham District. Applications, with testimonials, on or before March 28.

Whitehaven and West Cumberland Infirmary and Fever Hospital.—Resident House-Surgeon and Dispenser. Applications on or before March 21.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Cockermouth Union.—The Keswick District is vacant; area 76,703; population 6414; salary £26 per annum.

Guildford Union.—The Workhouse is vacant; salary £60 per annum.

Southwell Union.—The Sutton-upon-Trent District is vacant; area 12,064; population 2673; salary £28 per annum.

Thetford Union.—Mr. H. Taylor has resigned the Sapiston District; area 2286; population 537; salary £11 10s. per annum.

APPOINTMENTS.

Bourn Union.—George N. Adams, M.B. Edin., L.R.C.S. Edin., to the Rippingale District.

Burton-upon-Trent Union.—Alfred E. Prockter, M.R.C.S. Eng., L.R.C.P. Edin., to the Barton-under-Needwood District.

East Retford Union.—Charles E. Whittington, M.R.C.S. Eng., L.S.A., to the Tuxford District.

St. Matthew, Bethnal Green Parish.—Edward A. Burgess, M.R.C.S., L.S.A., to the Workhouse.

Northamptonshire Sanitary Districts.—We are informed by Mr. Haviland that he intends offering himself for re-election to the above sanitary districts.

Dr. Robert Barnes has resigned his seat at the Midwifery Board of the Royal College of Surgeons. The election of his successor, who must be a Fellow or Member of the College, or a Fellow or Licentiate of the Royal College of Physicians, will take place at an early meeting of the Council.

Royal London Ophthalmic Hospital.—It has been decided to enlarge this Hospital by erecting a third storey capable of containing thirty beds, thus raising the total number of beds to 100. The cost of the alterations will amount to about £3000, one-half of which has already been subscribed.

Arts Examination.—At the preliminary examination of candidates for the diplomas of Fellow and Member of the College of Surgeons, which was brought to a close at Burlington House on the 16th inst., there were 36 for the first-named distinction, and 145 for the latter, making a total of 181.

Royal College of Surgeons.—At a meeting of the Council on the 16th inst., Mr. T. Blizard Curling, F.R.S., of the London Hospital, was re-elected a member of the Court of Examiners, and Mr. J. Whitaker Hulke, F.R.S., of the Middlesex Hospital, was elected a member of the Board of Examiners, in the vacancy occasioned by the decease of Mr. G. G. Gascoyen. At the same meeting of the Council, the President invited the members of it to nominate from the Fellows of the College of Physicians a gentleman as an Examiner in Medicine, in consequence of Dr. George Johnson, the recently elected member, having resigned the appointment. The Council will proceed to the election at an early meeting. At the same meeting of the Council, Mr. Benjamin Thomas, L.R.C.P. Edin., of Llanelly, Carmarthenshire, having been elected a Fellow at a previous meeting of the Council, was admitted as such, his diploma of membership bearing date May 6, 1836.

The Paris Faculty of Medicine.—During the summer session, commencing March 15, the following courses of lectures will be delivered:—1. Medical Natural History, Prof. Baillou: A special study of the Plants that concern Medicine. 2. Physiology, Prof. Béclard: Digestion, Absorption, Circulation, Secretion, and Nutrition. 3. Pathological Anatomy, Prof. Charcot: Pathological Anatomy of the Digestive Organs. 4. Surgical Pathology, Prof. Trélat: Affections of Regions. 5. Legal Medicine, Prof. Lancereaux (as substitute for Prof. Tardieu): The Medico-Legal Study of Poisoning. 6. Pharmacology, Prof. Regnauld: Application of Pharmacology to Therapeutics; and the various groups of Medicinal Substances considered especially in relation to Pharmaceutical Forms and the Art of Prescribing. 7. Experimental and Comparative Physiology, Prof. Vulpian: The Experimental Physiology of the Nervous System. 8. Midwifery, and the Diseases of Women and Children, Prof. Pajot: Obstetrical Anatomy, Gestation, and Natural Parturition. 9. Medical Pathology, Prof. Potain (just elected). 10. Hygiene, Prof. Bouchardat: Alimentation, the Excretions, and General Hygiene. 11. Therapeutics and Materia Medica, Prof. Gubler: Hypnotic, Aphrodisiac, and Emmenagogue Medication; Treatment by Emaciation and Fattening, and the Treatment of Gout and Diabetes.—*Union Méd.*, March 7.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

B. B. B.—1. Certainly not. 2. They take rank in the order you mention. The L.R.C.P. is a double qualification; the M.R.C.S.E. is a qualification in surgery only; and the L.S.A. in medicine only, but empowering to deal in drugs.

A Metropolitan Teacher.—There will be two *primary* examinations for the diploma of membership of the Royal College of Surgeons—viz., the 31st inst. and 21st prox.

Colonist.—From the "Results of Observations in Meteorology and Terrestrial Magnetism, taken at the Melbourne Observatory, during the year 1874," recently published, we find the maximum temperature of the year was 102·7° in December, and the minimum 29·3° in August.

Originality.—It is a remark of Cicero that those who know not what has been previously written on a subject always remain in a state of childhood. And a later writer has said: "He that *will* be so original as to scorn to borrow from others may indeed acquire the wisdom of age, but he throws away the wisdom of ages. In this world that originality is sufficiently original which, having first acquired the knowledge and practice of others, improves on them—adds one storey to the original edifice."

W. C. Grosse.—Pleuro-pneumonia in France, Belgium, and Italy is termed *exudative pleuro-pneumonia.*

Electrician.—Faraday was appointed in 1836 scientific adviser to the Trinity House, a post he held for thirty years, and in which he was succeeded by Professor Tyndall.

A Student, St. Bartholomew's.—The registration takes place at the Royal College of Surgeons during the last ten days of the present month.

Member, Microscopical Society.—You will find the articles respecting Professor Quekett and the *Quarterly* Reviewer in the *Medical Times*, vol. xxiv. pp. 462 and 517. Quekett died several years ago; the writer survives, and his MSS. also.

"Who killed poor Keates?
I, said the *Quarterly*,
So savage and slaughterly,
I killed poor Keates."

M.A., Guy's.—Without any inspiration the Council of the Royal College of Surgeons confirmed the recommendation of the Committee by appointing the representative of the Middlesex Hospital we named three weeks ago.

Mr. Thompson, R.N.—Dr. Matthews Baillie died on Tuesday, September 23, 1823. It is not generally known, but we were informed by the late Mr. Clift that the fac-simile of the handwriting of John Hunter in the first volume of Palmer's edition of his works was really that of Baillie, who had Hunter's permission to write the testimonial.

Dr. Shebbeare.—Mr. Knight Hunt, M.R.C.S., the founder of this journal, states in his "Fourth Estate," vol. ii. page 94, that he was condemned to stand in the pillory at Charing-cross for publishing "An Eighth Letter to the People of England."

The Beale Fund.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In again requesting you will kindly insert the further subscriptions to this Fund, I beg to inform you the amount received is not sufficient to enable me to proceed to Canada (the amount promised by the British Medical Benevolent Fund is only given conditionally upon sufficient being otherwise subscribed); and as the time draws nigh when I purposed starting, I should feel extremely obliged if you will make a further appeal on my behalf. Subscriptions will be received by H. Hodson Rugg, M.R.C.S., 1, Grove-road, St. John's-wood, and R. Walter Goddard, M.D., 107, Edgware-road, Paddington. I am, &c.,

197, Junction-road, Holloway, N., March 15. Sarah Beale.

	£	s.	d.
B. (Med. Benevolent Fund)	10	0	0
Sir Thos. Watson	2	0	0
Sir H. Thompson	1	1	0
Dr. R. W. Goddard ...	1	1	0
Christopher Heath, Esq....	1	1	0
Dr. C. Hare	1	1	0
Dr. Bissett Hawkins ...	1	1	0
Dr. Stevenson	0	5	0
R. Ramson, Esq.	0	15	0
Miss Ramson	0	5	0
Total	£18	10	0

Tubercular and Respiratory Diseases.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your publication of February 12 you have been good enough to give insertion to Dr. Althaus' paper, read before the Royal Medical and Chirurgical Society, "On the Prevalence and Fatality of Nervous Diseases," in which I find a comparison made between the years 1871 and 1838, a period of thirty-three years. It was therein incidentally remarked that tubercular and respiratory diseases (added together by myself) amounted to only 29·13 per cent. in 1838, but in 1871 to 35·95 per cent. (added together by myself), leaving a difference of 6·80 per cent. against the last year, 1871.

Facts are stubborn things. As it is during the last thirty years that the stethoscope has been so much resorted to, may I not suggest that, probably, it is owing to its use that this increase can be attributed? If we believe, with Virchow, that tubercle is produced in the cellular tissue, we can easily see how such inflammations rapidly spread when cold is applied to the body, as must follow, it is presumed, when the stethoscope is applied to a part that is generally protected from the external air. I think, then, that the stethoscope ought not to be so freely used in diseases of the lungs; and only in cardiac affections, when uncomplicated, can it be safely resorted to.

Hoping you will be kind enough to give insertion to this communication,

Wallingford, March 13. I am, &c., Willoughby Arding, M.D.

COMMUNICATIONS have been received from—

Mr. Godlee, London; Mr. MacSwinney, London; The Secretary of the Medical Society of London; Mr. Smith, Reigate; Editor of "Iron," London; Dr. Milner Fothergill, London; The Secretary of the Royal National Hospital for Consumption, Ventnor; Mr. Sewell, London; Mr. Beaney, Melbourne; Dr. Whitmore, London; Mr. Hemming, London; Dr. Sheppard, London; Dr. Hughlings-Jackson, London; Mr. Atkinson, London; Mr. Moss, London; Dr. Sparks, Mentone; The Secretary of the Cremation Society, London; Mr. Gordon Brown, London; The Secretary of the Quekett Microscopical Society, London; The Secretary of the Royal Institution, London; Dr. A. B. Duffin, London; Dr. C. Theodore Williams, London; Dr. Francis Ogston, Aberdeen; Mr. J. Chatto, London; Mr. Henry Morris, London; Mr. Jonathan Hutchinson, London; Mr. W. E. Poole, London; Mr. B. R. Wheatley, London; The Secretary of the Pathological Society, London; Mr. W. F. Teevan, London; Dr. F. Churchill, London; Dr. A. Balmanno Squire, London; Mr. Hitchcock, Lewisham; The Registrar of the Apothecaries' Hall, London; Mr. De Renzy, Punjab; The Registrar-General, Edinburgh; Mr. Hussey, Oxford; The Dean of the Medical Department of King's College, London; Mr. Thompson, Malton; M.D., St. Leonard's; Mr. Sergeant, Bolton; Messrs. Kingsbury, London; B. B. B., London; Dr. Kebbell, Brighton; Mr. Dewar, Kirkcaldy; Dr. Arding, Wallingford; Mr. Haviland, Northampton; The Secretary of the Clinical Society of London; Mr. Maunder, London; Mr. Holloway, London; Mr. Donelly, Dublin; The Secretary of the Howard Association, London; Dr. Innay, Dominica, West Indies; Dr. Buchanan, Glasgow; Mr. Beale, London.

BOOKS AND PAMPHLETS RECEIVED—

Heath's Course of Operative Surgery, part 1—Youman's Class-Book of Chemistry—Report of County Lunatic Asylum, Colney Hatch—Supplement to the Thirty-fifth Annual Report of the Registrar-General of Births, Deaths, and Marriages—Lithotomy, its Successes and its Dangers, by a Practical Surgeon—Acland's Relation of Modern Engineering to Public Health and Local Government—Hooker's Botany—Loring's Refraction of the Eye—Report of Cholera Epidemic of 1873 in United States—Report of United States Marine Hospital Service 1873 and 1874—Annandale's Hip Disease—Birnbaum's Iron Springs of Schwalbach—Child's Letter to Mr. Stansfeld on Sanitary Legislation.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Londonderry Standard—Daily Courier—Journal of the Scottish Meteorological Society—Druggist Advertiser—American Psychological Journal—Manchester Examiner—Dublin Medical Journal—Indian Medical Gazette—Medical Examiner—Hastings and St. Leonard's News—Students' Journal—Labour News—New York Medical Journal.

APPOINTMENTS FOR THE WEEK.

March 18. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On the Human Senses."

Society of Medical Officers of Health, 7½ p.m. Dr. C. Meymott Tidy, "On a Story of Parish Dusting and Slopping."

20. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Henry Smith, "On some Manifestations of Syphilis and their Treatment." Dr. B. W. Richardson, "A Description of Two New Instruments for Artificial Respiration and Tracheotomy; also a New Exhaustive and Injecting Instrument."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—7. Shoulder-Girdle, Fore Limb, and Sternum of Mammals."

21. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Adjourned Discussion on Syphilis.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Statistical Society, 7¾ p.m. Meeting.

22. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Mr. Clement Lucas will exhibit a piece of Intestine with a Diverticulum. Dr. Hilton Fagge, "On Paroxysmal Neuroses."

Royal College of Physicians, 5 p.m. Croonian Lectures—Dr. Dickinson, "On the Pathology and Relations of Albuminuria."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—8. Shoulder-Girdle, Fore Limb, and Sternum of Mammals."

23. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Mr. William Spottiswoode, "On Polarised Light."

24. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Mr. George Brown, "On a Case of Amputation of the Thigh for Acute Necrosis of the Tibia and Suppuration in the Knee-Joint in an Infant nine months old" (the patient will be exhibited). Mr. Holmes, "On a Case of Excision of the Ankle-Joint, illustrating the utility of Linhart's Chisel." Dr. Goodhart, "On a Case of Headache, Vomiting, Double Optic Neuritis, Blindness,—ending in Recovery." Mr. A. T. Norton, "On a Case of Cleft Palate; Treatment by Operation and Artificial Uvula."

Quekett Microscopical Club, 8 p.m. Mr. W. K. Bridgman, "On the Principles of Illumination."

Royal College of Physicians, 5 p.m. Croonian Lectures—Dr. Dickinson, "On the Pathology and Relations of Albuminuria."

Royal College of Surgeons of England, 4 p.m. Professor W. K. Parker, "On the Shoulder-Girdle and Fore Limb of Vertebrata—9. Summary and Conclusion."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. McK. Hughes, "On Geological Measures of Time."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 11, 1876.

BIRTHS.

Births of Boys, 1296; Girls, 1261; Total, 2557.
Average of 10 corresponding years 1866-75, 2354·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	729	726	1455
Average of the ten years 1866-75	810·3	765·4	1575·7
Average corrected to increased population ...	...	...	1686
Deaths of people aged 80 and upwards ...	...	...	50

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	10	3	...	11	...	2	1	3
North	751729	...	10	10	2	20	4	3	...	5
Central ...	334369	...	2	4	...	8	...	...	1	2
East	639111	...	5	6	...	18	1	...	2	3
South	967692	1	19	12	3	23	...	4	...	3
Total	3254260	1	46	35	5	80	5	9	4	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·159 in.
Mean temperature	42·4°
Highest point of thermometer	55·0°
Lowest point of thermometer	33·8°
Mean dew-point temperature	36·5°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·46 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 11, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Mar. 11.	Deaths Registered during the week ending Mar. 11.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2557	1455	55·0	33·8	42·4	5·78	0·46	1·17
Brighton	100632	42·7	50	45	54·5	34·7	42·8	6·00	1·37	3·48
Portsmouth ...	124867	27·8	82	42	...	...	...	...	...	...
Norwich	83430	11·2	64	31	52·0	32·5	41·3	5·17	0·24	0·61
Plymouth	72230	51·8	45	44	55·0	35·5	44·8	7·12	0·73	1·85
Bristol	199539	44·8	156	97	51·5	32·9	42·4	5·73	2·02	5·13
Wolverhampton ...	72549	21·4	59	33	52·8	30·7	40·9	4·94	0·60	1·52
Birmingham ...	371839	44·3	334	166	54·2	29·5	41·4	5·22	0·45	1·14
Leicester	113581	35·5	107	32	52·0	31·8	40·7	4·83	0·59	1·50
Nottingham ...	93627	46·9	88	49	51·9	29·1	39·9	4·39	1·15	2·92
Liverpool	521544	100·1	428	316	52·7	31·8	40·2	4·55	0·97	2·46
Manchester ...	357917	83·4	283	217	...	...	...	...	...	...
Salford	138425	26·8	134	89	52·5	27·8	39·9	4·39	1·51	3·84
Oldham	88609	19·0	62	47	...	...	...	...	...	...
Bradford	173723	24·1	147	70	51·3	29·0	39·3	4·06	1·29	3·28
Leeds	291580	13·5	238	146	53·0	30·0	40·4	4·66	1·08	2·74
Sheffield	274914	14·0	209	112	49·0	30·0	39·2	4·00	1·47	3·73
Hull	136933	37·7	121	71	...	...	...	...	...	...
Sunderland ...	108343	32·8	95	34	51·0	31·0	40·3	4·61	0·41	1·04
Newcastle-on-Tyne	139929	26·1	96	58	47·0	30·0	37·2	2·89	0·44	1·12
Edinburgh	215146	51·3	145	109	50·0	31·5	41·2	5·11	...	...
Glasgow	545144	90·4	370	280	47·5	30·0	39·1	3·95	2·13	5·41
Dublin	314666	31·3	163	207	53·0	28·8	40·6	4·78	0·89	2·26
Total of 23 Towns in United Kingdm	8028595	37·7	6038	3750	55·0	27·8	40·7	4·83	0·99	2·51

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·16 in. The highest was 29·72 in. on Tuesday evening, and the lowest 28·52 in. on Thursday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture V.

(*Concluded from page* 272.)

MEDICO-LEGAL ASPECTS OF DEATH.

The phenomena last adverted to, you will have noticed, occur *simultaneously* with the extinction of the vital functions. Those to which we have now to direct our attention are, secondly, the phenomena which follow the arrest of the vital functions, and indicate the occurrence of molecular death, or the arrest of the organic functions. Their occurrence precedes, in order of time, the subsequent changes originating in physical alterations of the tissues. The most important phenomenon belonging to this period is—

1. *The coagulation of the blood in the heart.* In this organ the form assumed by the blood is occasionally that of a fibrinous clot, sometimes a soft clot; in some forms of death the blood remaining to all appearance fluid, though this last is asserted by Hassal to be only apparently the fact in any case. To what extent the coagulation of the blood takes place in the interior of the body, elsewhere than in the heart and large vessels, is a moot point, to which we shall have to return under Wounds—(Hassal, "Med. Anat.," vol. i. page 23; Caspar, vol. i. page 24.) There is no doubt of the fact, however, that blood withdrawn from the body within the first three or four hours after death will, as a general rule, be found to coagulate on exposure.

In addition to this sign of death and indication of its reality, we have the further phenomenon—

2. *The loss of muscular contractibility*,—like the last, a sign of greater value and importance than either of those which have been as yet adverted to. This change is not to be confounded with the *mere state of relaxation of the muscles*, which, as we have seen, so strikingly marks the cessation of the vital functions. Although the *tonicity* of the muscles has ceased at the moment of systemic death, these tissues are found to retain their *contractibility* for some time longer, admitting, as this property of theirs does, of being readily elicited by certain stimuli.

The appearance and disappearance of the muscular contractibility in different parts of the body is believed to follow a certain fixed order. Thus, according to Nysten, the parts which first present this change are the neck and trunk; it then appears in the lower extremities; and lastly in the upper: its departure observing the same order. With this agree substantially the later assertions of Kussmaul.—(*Viertelschrift für Gerichtl. Med.*, vol. ii.)

The duration of this phenomenon in the dead body is shortened by its exposure to warmth and moisture, and to ammoniacal, carbonic, and sulphuretted hydrogen gases; it is unaffected by carburetted hydrogen, chlorine, and sulphurous acid gases, nor is it diminished in cases of asphyxia, strangulation, and drowning.—("Cyc. of Anat.," vol. i. page 804, and vol. iii. page 31.)

But, independently of these causes affecting the continuance of this property of the muscular fibre after death, it has been lately discovered that the nature of the disease of which the person has died exerts a considerable influence on this change. Thus, in some experiments on the muscles of the trunk and limbs with the galvanic stimulus, the irritability was found to disappear in peritonitis in about three hours; in phthisis, scirrhus, and cancer, in from three to six hours; in death from profuse hæmorrhage or mortal lesions of the heart, in about nine hours; in apoplexy with paralysis, in about twelve hours; and in adynamic fevers and pneumonia, in from ten to fifteen hours.

The continuance of contractibility in the muscles after the extinction of the vital powers explains some facts already adverted to, as well as some which will come under our notice afterwards—viz., the alleged delivery of the fœtus, and the discharge of the urine and fæces after apparent death; the appearances of wounds at various periods after death, etc. The best method for testing its presence is galvanism, though it may be shown to exist by simply pricking or otherwise irritating a nerve of motion leading to the part. As a general principle it may be stated that the *disappearance of the muscular irritability* is synchronous with *the commencement of cadaveric rigidity.*

The loss of animal heat which follows the extinction of the vital functions is a more equivocal sign of death than the phenomena last mentioned. The *mean time* required for the complete cooling of the corpse has been fixed by Caspar at from eight to twelve hours. The process, however, admits of modification by a great variety of circumstances. As a general rule, the cooling of the dead body is slower of completion after *acute* than after chronic diseases. It is usually considerably retarded in asphyxial cases, except in the case of submersion. In suddenly fatal apoplexy, accident, or acute disease the body has often been found to retain its heat for long periods. After death by hanging, suffocation, or breathing carbonic acid gas, it has been observed to retain its heat from twenty-four to forty-eight hours, or even longer; though in some cases of fatal asphyxia it has been known to cool as rapidly as in death from other causes.

"It has been observed, on the other hand, that in those who have died from chronic disease, and in whom death has taken place slowly, the bodies have cooled very rapidly. They have been found quite cold on the surface within *four* or *five hours* after death; at least, as cold as other subjects after the lapse of fifteen or twenty hours, who have died under reverse circumstances. In such cases, coldness of the body is commonly manifested *before* dissolution in the parts most exposed, as the hands and feet, the nose and the ears."—(Naylor, *Medical Gazette*, new series, vol. ii., page 134.)

The human body, *cæteris paribus*, will part with its heat in the same way as any other mass of matter placed in a medium cooler than itself—viz., by radiation and conduction. Thus the facts are easily explained of the body parting with its heat sooner in water than in air, in a current of air than in a tranquil atmosphere, and in a large than in a small room; as also the circumstances that the body of an adult cools more slowly than that of a child or of an old person, a fat than a lean person, a body wrapped in clothes than a naked corpse, etc.

The time the body will take to cool may occasionally form an important element in a case of murder, by the connexion which the period of death may have with the act of the accused party.

In the case of a person of the name of Millie, for the manslaughter of whom a man named Bolam was tried in England some years since, the body, although clothed, is reported to have been found cold about nine hours after death.—(*Ibid.*)

In the case of William Spicer, tried for the murder of his wife at Reading, in March, 1846, the facts connected with the rigidity and cooling of the body, and the period of time required for the development of these conditions, formed essential elements in the chain of circumstantial evidence by which guilt was brought home to the pannel. Two contused wounds were found in the woman's temples, sufficient to have stunned her, but not to have caused her death. It appeared probable that the prisoner had thrown her down a cellar-stairs, where she was found lying dead with fracture of the skull, and of the second cervical vertebra. The noise of the fall of the deceased was heard about half-past twelve; her body, when discovered at nine o'clock, was quite cold and rigid. The inference which the prosecutor required to establish was that she had been dead for the whole of this period. In proof of the correctness of this assumption, the medical witness declared that at that season rigidity would not come on before at least from eight to ten hours—a period which corresponded with a short visit to his house by the pannel at the time the fall was heard, and completely negatived the possibility of a statement made by him that he had seen his wife in life at a subsequent visit at a quarter to five.—(*Ibid.*, pages 136-138, *pass.*)

There is a curious circumstance connected with the one we have been considering, and forming an apparent exception to the rule of the cooling of the body after the cessation of the vital functions, which requires here to be adverted to. I allude to certain alleged instances of the corpse, without any evident cause, maintaining its temperature for many hours after dissolution; or even exhibiting a degree of heat greater than it had done during life. Thus, Dr. Davy has found a temperature of 113° in the pericardium after death.

The difficulties which such an occurrence might give rise to are well illustrated by the following case, which appeared

in the *Lancet*, and which had evidently been communicated by the reporter in a fit of remorse, occasioned by his precipitancy :—

"In October, 1840, a servant-girl, who had retired to bed in apparently perfect health, was found the following morning, as it appeared, dead." A surgeon called pronounced her really so, and that she had been dead for some hours. A coroner's inquest was summoned for four o'clock, and the reporter and the surgeon who had been called in to the girl were ordered to inspect the body previous to its sitting. On proceeding to the house for this purpose, at two, the inspectors found the girl lying in bed in an easy posture, her face pallid, but placid and composed, as if she had been in a deep sleep, while the heat of the body had not diminished. A vein was opened by them, and various stimuli applied, but without affording any sign of resuscitation. After two hours of hesitation and delay, a message being brought that the jury were waiting for their evidence, they were forced to proceed to the inspection. In moving the body for this purpose, the warmth and pliancy of the limbs were such as to give the examiners the idea that they had to do with a living subject! The internal cavities, as they proceeded, were found "so warm that a very copious steam issued from them" on their exposure. All the viscera were in a healthy state, and nothing was detected which could throw the smallest light on the cause of this person's death.

The explanation of such an occurrence as the above is not difficult. In such instances the body will have parted with its natural heat so slowly, that, before this has had time to disappear, the commencement of putrefaction—which is unusually early in such cases—will have led to the evolution of additional heat, by the occurrence of those chemical changes on which this process depends. One or two facts from my own experience will place this matter in its true light. The cases which follow, allowing for some exaggeration in the *Lancet* case, do not differ from it essentially.

A seaman affected with scorbutus died suddenly, from (as was found on dissection) the effusion into the chest of sixteen ounces of serum. Next day, on proceeding to his house for the inspection, I was informed that the body had retained its heat, and the limbs their flexibility. The heat of the trunk and limbs was little, if at all, below the vital temperature. Next day putrefaction had advanced so far as to leave no doubt of his state, the heat being greatest in the chest, where the decomposition was farthest advanced. I once witnessed the momentary alarm of a student on the removal of the sternum at finding the contents of the chest warm, and steam issuing from its cavity. The following case, however, is more to the point :—

One morning, in the summer of 1840, I was sent for to Littlejohn-street, Aberdeen, to see a lad of seventeen, who had just fallen down in the street, when on his way to a workshop in the neighbourhood. He had immediately before left his parents' house in good health and spirits. The death appeared to have been instantaneous. Finding that nothing could be done, I left as soon as I perceived that he was really dead. On the afternoon of the same day I was again sent for by the lad's mother, who stated that she had been deterred from proceeding to dispose of the body by observing that it did not become cold, as might have been expected had he been really dead; that the limbs were still supple; and that within the previous half-hour the colour had returned to his cheeks. In short, she expected that he was about to come to life again. These statements were undoubtedly correct, and it was my painful duty to make the poor woman aware that all this was owing to the very rapid approach of decomposition in this instance, which, by next day, was fully developed in the body, its increased temperature still continuing.

In some rare cases the commencement of putrefaction, with the consequent warmth of the body caused by it, follows dissolution so speedily that the previous process of rigidity of the limbs succeeding the cooling of the corpse has escaped notice altogether, from its slightly marked character or brief duration. Instances of this exceptional sort are encountered after the sudden deaths (especially in very warm weather) of persons previously in health falling victims after brief illness to attacks of acute inflammatory or apoplectic diseases. In all such cases a careful investigation will lead to detection of some of the indications of the commencement of decomposition in the body.

The continuance of secretion, absorption, and *nutrition* for a short period after death has been contended for, from the exhalation of serous fluids in some parts, their disappearance in others, and the alleged growth of the hair after the extinction of the vital functions. These facts—admitting to some extent their reality—are capable of explanation on such merely physical principles as transudation, endosmose, penetration, etc., without supposing the continuance for a time after death of the molecular processes; others of them may be accounted for on chemical principles. Still, it is not impossible that, as in some of the lower grades of organisation, cell-growth, from its comparative independence of the vital functions, may continue for a short period after the cessation of these functions.

From *the combination* of the signs we have passed in review—viz., 1, the cessation of the vital functions; 2, the lustreless eye; 3, the loss of muscular contractility; 4, the pallor of the surface; 5, the loss of the animal heat; 6, the relaxation of the muscles—Caspar fixes *the period of death* at *from ten to twelve hours at the longest*.—(Pages 17, 18.)

LECTURES ON INJURIES TO THE HEAD.

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Lecture IX.

ON THE SYMPTOMS INDICATING INJURY TO THE SURFACE OF THE BRAIN.

I will not trouble you with the details of the life-history in the following case, but will merely state that the man died after a compound fracture, with laceration of the dura mater, and that hemiplegia had been throughout a very definite symptom. Trephining and removal of some fragments of bone had been done soon after his admission.

I must give you the post-mortem in full, for it was of great value, in proof that severe contusion of external parts, without any injury to the centres, can produce hemiplegia.

The skull was very thin. The right parietal bone had been broken into fragments, and several fissures passed downwards through the squamous portion of the temporal. A surface of dura mater, nearly as large as the palm of the hand, had been exposed by the removal of fragments in the operation. In this were two distinct lacerations—one a triangular one, with sides an inch long; the other, which was close to the right side of the longitudinal sinus, half an inch long. There was no depression of bone anywhere, and the dura mater was nearly at a normal level. I removed some other large fragments before using the saw, as they were quite loose. Between the dura mater and bone in front of the wound was a thin layer of blood-clot. When we separated the edges of the larger laceration in the dura mater, some blood-stained, thin, purulent fluid escaped, but in no great quantity. We could see the contused brain-substance below. The saw was now used, and the calvaria detached. The hemispheres were sliced off *in situ*, the line of incision passing through the ventricles, etc. A small quantity of blood-stained serum escaped from the skull. At one spot in the lining membrane of the posterior cornu of the right lateral ventricle there was a little yellow effusion, but it was very little; and, with this exception, there was no evidence of inflammation. The line of section had passed through the corpus striatum and thalamus. These structures presented no traces of injury or of subsequent softening. It was impossible to distinguish any difference in the appearance of the section on the two sides. The hemispheres, which had been removed with the calvaria, were next examined. On the right side over the whole surface there was a greasy, purulent effusion, with a few flakes of lymph. This effusion covered also the parietal layer of the arachnoid. There was much less lymph than is usually seen. The effusion was not present, excepting to a very slight extent, in the left side; nor was it found at the base of the brain at any part. Over the middle of the hemisphere the pia mater was extensively lacerated; the brain-substance contused. There were patches of contusion over the middle of the hemisphere, and also over the posterior lobe, and on the side as low as where we had cut the bone, but not lower. The anterior third of the hemisphere was not contused, but of the middle and posterior thirds but little of the surface had escaped, the chief damage being directly beneath the lacerations, and near the middle of the upper surface. Here the pia mater was much ecchymosed, and the cortical substance was in a state of soft pulp. On

making a vertical section we found the white substance beneath also much ecchymosed. It was stained yellow by the adjacent blood, and showed numerous small specks of extravasation. These evidences of contusion extended deeply—almost into the posterior cornu of the ventricle. A stream of water poured on the part broke its way through the softened brain-substance into the cornu of the ventricle, but in the first instance there was no actual communication with the ventricle. Over the damaged parts it was impossible to remove the pia mater without tearing off also some of the grey substance, but from the anterior lobes the pia mater could be easily removed. Having thus established the fact that, as we had expected, the surface of the middle of the hemisphere was extensively injured, we next examined carefully each one of the cranial nerves, the pons, medulla, and cerebellum. There was no effusion, nor the slightest evidence of contusion in the centres or at the base of the brain. Beneath the left lobe of the cerebellum the pia mater was a little ecchymosed, but the cortical substance beneath the ecchymosis showed no evidence of contusion. In the cortical substance of the left sphenoidal lobe were two patches of minute dots of extravasated blood, doubtless the result of *contrecoup*. They were very small indeed. There was no blood in the arachnoid cavity. After tearing up the dura mater from the base, we discovered a very minute fissure extending downwards from the right squamous bone across the line of the foramina in the sphenoid to the body of that bone.

The post-mortem was witnessed by some who were most unwilling to admit that damage to the external parts of the brain could produce hemiplegia, and all admitted that the central parts were free from any evidence of injury.

The next case which I have to detail to you is one which at first puzzled us a good deal, because we had an incomplete history; but which, when looked at by the light of the post-mortem, is very characteristic of an important group. When the man was first admitted, some conjectured that he was intoxicated; afterwards we had to entertain the hypothesis of fever, or of arachnitis. The man himself, from the first, was in a state of stupor. Just after he came into the hospital ward he managed to tell the nurse his name; but after that we could never get him to speak. He was admitted about Wednesday noon, and he died on Saturday. During the whole of this time he had lain in a stupid condition, without speaking; capable of resisting vigorously when we disturbed him, but never speaking. His tongue and lips were dryish, but he would never put his tongue out. His face was flushed and bloated. When he was covered his skin got hot, but when he kicked the clothes off (as he often did) he rapidly became cold. His pulse was steady, and usually about 65. We could not make out that he was paralysed in any part; he moved all his limbs when we pricked them, and screwed up his eyes when we tried to open them. His pupils were of medium size. He was more or less restless, frequently tossing the clothes off and turning in bed. He could rouse himself when the bladder was full, and would then get out of bed, stagger to the next patient's bedside, and make water against it. No friends came to see him, and the only history which had been obtained from those who brought him was that he had had a fall of a few feet, and that he was a very drunken man. There was no contusion to be discovered about any part of his head. He had had no bleeding from ears or nose, nor was there any ecchymosis of his eyes. We could find no fever-spots on his body. After remaining three days in the condition I have described, getting gradually more and more stupid, he had, on the morning of the third day, a succession of convulsions, each one weaker than the preceding, after which he died.

In discussing the diagnosis of the case, I had remarked that on the whole I was inclined to think that he had sustained some severe injury to the head; and I pointed out that it was unusual, in cases of mere concussion, that we should be unable to rouse the patient to speak. I stated, also, that the circumstance that he could rouse himself when the bladder was full was quite in keeping with what we often notice in concussion: very often a patient who is in a stupid sleep at all other times will rouse himself to make water, then go to sleep again. The absence of paralysis seemed to show that the patient had no extensive injury to the middle parts of his hemispheres, and it was also, to my mind, tolerably conclusive that he had no surface arachnitis. I will explain my reasons for thinking so at a future lecture.

On the day of the man's death we obtained an account of his accident from the foreman of the yard where he had worked. He had, whilst sober, fallen backwards from the cart which he was loading, and struck the back of his head. He was stunned, and was picked up by the bystanders. Soon afterwards, he regained consciousness sufficiently to tell them that "he felt very bad, but hoped he should be better soon." He was at once conveyed to the hospital, and the rest of the case I have already given you. The height which he had fallen was eight or nine feet.

Now let us ask, What are the usual consequences of a severe blow on the occiput, such as this man had received? Very often there is, in the first place, a fissure-fracture of the bone where struck, and a slight contusion of the cerebellum above it; but the most important lesion is to the anterior lobes of the brain. These are driven violently forwards against the skull, and very frequently they are lacerated (laceration by *contrecoup*). Not unfrequently there is further evidence of the effects of *contrecoup* in a few linear fissures in the thin plates of the frontal bone on each side of the ethmoid, and in ecchymosis beneath it. Connected with the laceration of brain there is always the effusion of more or less blood into the bruised brain-substance, into the meshes of the pia mater, and into the arachnoid cavity. These were precisely the lesions which our patient had sustained. I show you in this sketch the direction which the line of fracture had taken.

The symptoms which the man had presented fitted very well with the conditions found at the post-mortem. The case was essentially one of very severe concussion of the entire brain, *plus* laceration of the anterior lobes, *plus* a certain amount of general compression by effused blood. The compression had probably a good deal to do with the immediate cause of death. The convulsions no doubt very much hastened his death, and they might have been due either to the laceration or to the compression. I have known a series of convulsions precede death in a case of pure and uncomplicated compression.

ORIGINAL COMMUNICATIONS.

ON THE

TREATMENT OF CHRONIC ECZEMA BY GLYCEROLE OF SUBACETATE OF LEAD.

By BALMANNO SQUIRE, M.B. Lond.,
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(*Concluded from page* 303.)

I HAVE already declared my experience to be in favour of ointment made with Goulard's extract, in preference to the Pharmacopœial preparation made with the powdered crystals of the solid acetate, but I must also declare my experience to be very greatly in favour of either of the above to the Viennese preparation (recently imported) of diluted diachylon plaster. The latter is, to begin with, a very uninviting, putty-like substance, quite like putty softened by admixture with oil. This would be a small matter, but pharmacists are aware of the real value of a difficulty of that kind, and would at once exclude a preparation of this sort from the category of "elegant," that is to say, acceptable, preparations. But it does not end there. This "ointment" (unlike ointment of any other kind) may be plastered on the skin with some pains, but, like putty on unpainted wood, it will not stick until at length it has slowly liquefied and so flows over the surface. It is even difficult to get it on the finger so as to apply it; it cannot be got out of the pot as ordinary ointment may be, by a mere scrape of the finger, but has to be dug out as an inadherent stringy morsel, which is difficult to retain as well as uneasy to deal with; and, in addition to its pharmaceutical defects, it is vastly inferior in its therapeutical results to an ointment made with Goulard's extract. It may be to some surprising to say that an ointment made with the latter may be quite easily varied in strength from a few minims of the subacetatis plumbi liquor to as much as a drachm of it to an ounce of lard, the larger quantity of the aqueous solution being easily incorporated with so small a quantity of grease. However, I have found that for the majority of cases of chronic eczema greasy preparations of any kind are *pro tanto* a disadvantage: they appear to act in a minor degree in the same disadvantageous manner that water-dressing covered by oilskin does. I was accordingly induced, when I had fairly satisfied myself that lead was a good agent, and that the basic acetate of

lead was a good form of exhibiting that remedy, to seek some more favourable vehicle for exhibiting it in cases of chronic eczema than grease of any kind had seemed to me to be (I had tried, amongst other vehicles, oil). Glycerine has proved in my hands far superior either to oil or water as a vehicle for applying remedies in the case of chronic eczema. It has neither, so to speak, the desiccating effect of water nor the macerating effect of grease. Its viscidity is about parallel with that of the viscid secretion proper to eczema, so that, in smearing it over, it is readily miscible with it, and while it preserves the surface moist, it readily incorporates itself, and, more than that, undergoes true admixture or diffusion (osmosis) with the viscid aqueous solution of lymph and albumen which is exuded slowly but continuously from the surface of the diseased skin. Thus it conveys the remedy held in solution by it more freely to the actual surface of the skin itself. At the same time it fulfils an indication which is less perfectly attainable by the use of oiutment: it adheres more closely to the comparatively moist surface of eczematous skin than ointment does, and so is less readily rubbed off by accidental friction. In this way it more efficiently preserves a uniform supplencss of the skin affected by eczema—a matter of importance in more than one respect, for not only is the patient relieved from the hide-bound feeling which is one of the chief distresses of chronic eczema, but the chapping and cracking of the skin, caused by the partial splitting on every movement of the body of the inelastic varnish formed on its surface by the partially dried-up exudation, is avoided; and this latter phenomenon is one of the main aggravators and perpetuators of the eruption.

That glycerine possesses ample capacity for penetrating serous secretion may be proved by repeating an experiment which I have often had occasion to make in prosecuting microscopical researches into the minute anatomy of the morbid skin. I have been in the habit often of preserving small portions of skin (removed by operation) in glycerinc, so as to preserve them from putrefaction till I had leisure to examine them. It will be found that in a short time a piece of skin so immersed has undergone throughout the whole of its thickness a very marked change in its physical characters. It has lost its whiteness and its opacity, and become of a light yellowish-brown colour and semi-transparent, assuming the aspect but not acquiring quite the hardness of a piece of dried tendon; at the same time it has become curled up at the corners. It feels very considerably harder than before. If cut with a knife, it "cuts" something like slightly warm glue or like an old and somewhat hardened piece of candied orange-peel, which, on the whole, it rather resembles; at the same time it has notably diminished in size. In fact, the glycerine has almost completely deprived it of all its water, which has become diffused throughout the glycerine, while the glycerine itself has thereby become accurately applied to every nook and crevice of the piece of skin in the closest possible contact. In the living skin, of course, even when it is completely raw, desiccation of this kind does not take place on the application to it of glycerine, because the skin is constantly fed, on its under surface, by an inexhaustible supply of aqueous fluid; but it is clear that an agent which has so obvious a capacity for absorbing watery fluids into its substance must be far more capable of bringing medicaments already dissolved in it into much closer juxtaposition with a serum-secreting surface of skin than it is at all possible to attain by applying to the skin the same medicaments incorporated with grease, whether in the shape of lard or oil. Grease of any kind, so far from absorbing watery fluids into its substance, is proverbial for resenting any attempts at its admixture with them. "But, then," it might be urged, "why not use water? water surely is miscible enough with aqueous solutions; whether serous or other, the process of osmosis would surely convey the water, and with it the medicament it may contain, into the substance of the viscid film of scrum, and so to the surface of the skin itself." This is true; but then, as I have said before, desiccation rapidly takes place, both of the lotion and of the serum, and so an impermeable film of dried scab becomes (fatally to the purpose in view) interposed between the skin and the remedy. "Then, why not," it might be urged, "cover the lotion applied on rag with a piece of oiled silk? *that* would prevent desiccation." To this the reply is simple—the experiment has been tried often enough, and I have had frequent occasion to note the result: such a plan invariably aggravates the disease very markedly; and more than that. For example, if the patch of wet rag and oiled silk be larger than the patch of disease over which it is applied, it leads rapidly to an extension of the disease. Thus, I have often seen a large round patch of chronic eczema very speedily converted into a much larger square patch, the size and shape of the larger patch, corresponding very accurately to the dimensions of the piece of oil-silk which had been kept applied. The skin becomes thoroughly macerated; and this condition evidently is more prejudicial to a favourable issue in chronic eczema than even its condition as it exists when it is left to itself. Unlike a mere aqueous solution, a solution of the remedy in glycerine permits of its continuous application, while at the same time the skin is preserved supple and *moderately* moist. Unlike an aqueous solution reinforced by a covering of oil-silk, a solution in glycerine permits of a certain degree of coutinuous evaporation from its surface of aqueous vapour. In short, glycerine appears to have the property of supplying efficiently the most important of the physiological actions of the lost epidermis—namely, of conducting in like manner with the epidermis the business of the "insensible perspiration." When spread out in a film on the raw skin, it fulfils the same office that the epidermis does, in continuously absorbing water on its under surface, and permitting its constant escape from its upper surface in the shape of aqueous vapour, but in such moderate quantity as shall serve to keep the skin itself fairly and properly moist. In addition to this useful quality may be added another. Very many patients have an extreme dislike to being smeared over any considerable portion of their surface with grease of any kind; not only does it make their clothes in a mess—which to a person of cleanly habits is often extremely distastful—but it induces a peculiarly uncomfortable sensation which is a source of annoyance. Whereas glycerine, even when applied freely over the greater portion of the entire surface, is a comparatively cleanly application, and excites no other sensation than a feeling of slight stickiness, which is far more readily put up with, and is eagerly preferred to the unpleasantness of a general inunction. Even this slight disadvantage completely disappears when, as should always be the case, the glycerole is not profusely applied, but is smeared on in very moderate quantity at each application, and renewed as often as may be demanded—generally about three times a day.

I have now, perhaps, said sufficient to show what fair probabilities of usefulness the preparation I advocate preseuts, apart from my own personal experience of its therapeutical efficacy.

It remains for me still to dispose of some natural fears that I have reason to know it will certainly occasion. When, a few years since, it was suddenly discovered that the "hair-restorers," which were, and are still, so very extensively advertised, consisted chiefly of a solution of acetate of lead, with no other qualification than the addition of some glycerine, and a tolerable amount of finely divided sulphur, considerable alarm was caused, aud a correspondence in the *Times* ensued, in which several medical writers took part. These commented on the alarming manner in which the health must surely, if slowly, be undermined by the continuous use of such an agent, and pointed out with some care how many poisonous doses of lead were contained in each bottle of the stuff. This attracted some attention at the time, and, as I had frequent occasion of learning, created a widely spread fear of the articles in question. This *à priori* dread was, however, perfectly gratuitous: the "hair-restorers," however little good they may do to the hair beyond slowly dyeing it of a dirty brown colour, certainly do no harm to the system. I have known persons who have loug persisted in their use without exhibiting any of the symptoms by which it may certainly be decided whether lead in any injurious, or even in any tangible, quantity has entered the system—that is to say, they have presented no blue line at the margins of the gums; they have uot suffered from colic, or even from painless constipation in the least degree; they have not experienced "wrist-drop," etc. So, again, with those who have copiously used the "unguentum diachyli"; and so equally with those who have smeared over a large portion of their surface the preparation I am recommending. It is not commonly appreciated how widely the two skins of the body (the "leather-skin" and the "slime-skin," as the German anatomists call them) differ in their capacity for absorption; or, perhaps, as one ought more accurately to put it, how very different the absorbent capacity of the *epithelium* of these two skins proves to be. That of the "slime-skin," or mucous membrane, is constructed for the obviously express purpose of absorbing almost any absorbable substance that may be brought in contact with it, aud that in a surprisingly rapid and complete manner; whereas that

of the "leather-skin," or skin proper, is constructed so as to interpose an equally surprising and almost insuperable obstacle to the absorption of any ordinary absorbable substance. It is true that by artificially removing the epidermis, by means of any blistering substance, we may temporarily alter this condition by depriving the "leather-skin" of its efficient protection, and thus approximating the condition of its epithelium to that of the "slime-skin," so that it becomes capable of the property of absorbing matters into the system; but the condition of the skin, even in the rawest phases of chronic eczema, is very far from being such as is capable of evincing this property. By this I do not mean simply that it *ought* to be so, but that repeated and careful observation conclusively proves that it *is* so. Nevertheless, I have often heard fears expressed by practitioners whom I have had the pleasure of meeting in consultation, that such a remedy as the one I am speaking of must probably be a very dangerous one for their patient to use. However, it is not lead alone to the absorption of which the skin offers so marked, and indeed so surprisingly perfect, a resistance. Sir Thomas Watson, in his classical treatise on the Principles and Practice of Medicine, refers to the resistance of the skin to the absorption of mercury, quoting thus a letter written to him by Dr. Bowling, of Adairville, in Kentucky:—"The applications [of *unguentum hydrargyri nitratis*] are to be made twice a day [for a week]. I have never known the constitutional effects of the mercury to be developed in this treatment, save in a single instance, and then but very slightly." Now, I myself have also frequently ordered general inunction with strong mercurial ointment—from seven grains to as much as a drachm of the nitric oxide of mercury to the ounce of lard—without ever (save twice) producing, and even then in quite a trivial degree, any of the constitutional symptoms of mercury. These two cases, inasmuch as they are the exceptions to many hundreds of such inunctions, may fairly be placed to special idiosyncrasy.

I have now disposed, as far as I can do so in writing, of any fears that may be entertained as to the safety of my application. It is necessary that I should here give some definite explanation of what condition it is that I have found to be so considerably benefited by its use. "Chronic eczema" is a term that has so many different significations, that I must needs show briefly how I myself employ it for the purposes of this essay. I do not, for example, include what I may perhaps sufficiently describe by the names of lichen, strophulus, prurigo, or pityriasis; nor do I include what, with more or less justification, has been termed "dry eczema." I mean here by chronic eczema only those persistent conditions to which the term was in the earlier part of this century limited, and which come more properly under the literal signification of the word eczema—that is to say, those which are characterised by a colourless, viscid sweating from the skin: but equally whether that sweating be abundant, so as to keep the surface of the skin bathed in slime, or so as to concrete in large scabs; or merely scanty, and occurring even in minute, discrete, but more or less clustered spots, so as to present only thin, small, transparent, dry, gum-drop-like deposits, which on detachment are found to be concave on the under surface, and concealing a small drop of viscid exudation; or, as the case may be, small, raw, scattered, but more or less clustered, weeping excoriations. And I include also that condition in which numerous but tolerably minute moist cracks in the reddened surface are present. I am not here attempting to give either a definition or a complete description of chronic eczema, but am simply aiming at conveying in general terms, to those to whom the disease in its various phases may be familiar, what phases of that disease I am referring to. It will be seen, I trust, that I am limiting myself to those conditions of eczema (however much or little ought properly to come under that heading) in which there is, either obviously or substantially, a moist and viscid exudation from the skin, and am excluding those in which there is only a mere papulation, or a mere plastic thickening of the skin, or a simple dry scurfiness of its surface; that, in short, I am referring to a wet disorder, and not to a dry one.

I now come to some pharmaceutical details, which require only a brief description.

The remedy is manufactured—or rather, I should say, the stock which forms the basis from which the remedy is prescribed is made—in precisely the same way as the "plumbi subacetatis liquor" of the British Pharmacopœia, only that glycerine is used in its manufacture instead of water; and to this I have to add that some simple directions as to temperature have also to be followed. It is thus prepared: Take of acetate of lead, 5; litharge, 3½; glycerine, 20. Heat for half an hour in a boiling glycerine bath, constantly stirring, and filter in a gas-oven or other kind of heated compartment. The result is a perfectly clear and colourless liquid, of a somewhat more viscid consistency than pure glycerine. Physically, it is a stronger solution than the Pharmacopœial "plumbi subacetatis liquor," inasmuch as the insoluble white residue left by the Pharmacopœial process is nearly double by weight the residue left by the process above directed. Therapeutically, however, the glycerine preparation is a far less active application considered absolutely than the "liquor," besides that it differs markedly in several essential respects in the *kind* of effect produced by it. It does not appear to be known that equal strengths of solution in water on the one hand, and in glycerine on the other, of any remedy used locally, are very different as to the degree of effect exerted on the skin, the aqueous solution being in every case a far stronger application than the glycerine solution. The reason of this is very obvious: the rapid evaporation of the water under the influence of the heat of the body very soon concentrates the aqueous solution; whereas the comparatively fixed character of glycerine does not allow of any notable evaporation of the solution.

Two of the pharmaceutical details of the preparation of the glycerole demand a little explanation. The ingredients are not directed to be boiled over a naked flame, because, in boiling, glycerine undergoes decomposition, evolving acid fumes. On the other hand, they are not directed to be heated in a boiling-water bath, because, when thus warmed, less of the powder is dissolved than when they are heated in a boiling-glycerine bath.

Filtration in a hot chamber is recommended, because at the ordinary temperature it would probably take about a week to filter even a small quantity of the solution, whereas when heated the solution temporarily loses its viscidity, and speedily runs through the filtering paper.

I have called the preparation I have above described the "stock" from which the remedy is prescribed, because as above prepared it is far too strong for general use, although it may occasionally, in certain cases, after one's way has been carefully felt by the previous use of milder strengths of solution, be with advantage used undiluted. I find that a drachm of it to the ounce of pure glycerine is about the strength which is usually expedient. Sometimes half a drachm to the ounce is quite sufficient. On the other hand, two drachms to the ounce will sufficiently often produce a better effect than one drachm to the ounce will; and greater strengths progressively employed up to the full strength will more rarely be found expedient. The skilful use of this remedy, simple as is its composition, is like the skilful use of a very simple instrument. Some people can achieve wonders in wood-carving with a penknife: some cannot. To determine at sight what conditions are favourable to its employment, and what are not, is one matter; to pronounce what strength of it should be used is another, and perhaps a less easy affair, but it is of no less importance as concerns the result. Too weak an application will do scarcely the least good: too strong a one will do positive harm. Practical experience in the use of the remedy will alone suffice to impart judgment in these matters. But these remarks apply with equal force to every local application of any kind that may be employed in the treatment of skin diseases. I introduce them here merely to explain why I believe that any attempt at minuter detail than I have already entered into on this head would probably be an idle one.

I ought to say, moreover, that I do not profess that this remedy, any more than any other kind of remedy, shall be invariably successful even in the class of cases to the treatment of which it is best adapted; and here I may quote Dr. Devergie, who, after a long experience, found himself constrained to write thus:—"Dans une affection cutanée qui exige l'emploi des émollients, le médecin ne saura dire, a première vue, si les cataplasmes, les lotions, ou les poudres pouront être efficaces; il faut nécessairement qu'il en fasse l'essai." In short, nothing succeeds invariably but success; but I am none the less for that disposed to modify my original proposition—namely, that glycerole of the subacetate of lead is a far more generally useful application for chronic eczema than either the benzoated oxide of zinc ointment, the calamine and oxide of zinc lotion, or the unguentum diachyli. One disadvantage of the more popular two of these—namely, the two ointments—is that no variation of their strength seems to have been contemplated by those who have advocated them;

nor does such an idea appear to have presented itself to any of the numerous adopters of these two preparations. It is accepted as of the natural order of things that benzoated zinc ointment must consist of one part of oxide of zinc to five parts and a half of benzoated lard, just as water must consist of certain inflexible proportions of oxygen and hydrogen. I never heard of anyone who thought of tampering with these, the only possible (?) proportions. Just so with the unguentum diachyli. The composition of this preparation must have less variation than even that of the proverbially constant mariner's compass. It must consist of equal parts of diachylon-plaster and oil, or else, equivalently, of one part of litharge to four parts of oil, according to the manner in which it may be chosen to make it. Now, if I were to be called upon to name some solitary useful result as the product of a twelve years' study on my part of the effect of remedies on diseases of the skin, I should prefer to say that I had learnt to know that it is necessary to vary, and that very considerably, the *strength* of applications of any kind to the diseased skin; and that not only in respect of the use of the same application to different kinds of disease, but to the same disease as existing in different individuals, and, furthermore, to the same disease in the same person, at different phases of its progress. It will not be too much, therefore, if I claim for the preparation I am pleading for, that it admits of a ready and expeditious variation of its strength of action without alteration of its consistency, or, indeed, modification of any of its useful physical qualities, by the immediate addition to a small portion of the stock solution of any required quantity of glycerine—an advantage of no small convenience in country practice, or, indeed, in apothecaries' practice anywhere. The same remark applies also, so far, to glycerole of carbolic acid, or to glycerole of tannin, although the Pharmacopœial preparations, in either case, are far too weak to serve as generally useful stock solutions. I have every reason to think that the adoption of a solution of the basic acetate of lead in glycerine, such as I have described, would be a valuable addition in the British Pharmacopœia to the other solutions in glycerine that already exist there.

I have but one more remark to add, and that is, that the first effect of the application, even in cases where, both as regards quality and strength, it may be excellently adapted to the condition present, will, to the unpractised eye, seem an aggravation of the disease—that is to say, the eczematous skin will seem to be redder and more inflamed, as well as moister. The moisture will, of course, be readily understood, but I find that the redness is very liable to misinterpretation, and so becomes the occasion of a loss of faith in the remedy at the very outset, and even the cause of it being promptly abandoned. It is due simply to greatly increased transparency of the cuticle, and of the thin scabs or scales, consequent on their infiltration with glycerine, which thus enables the inflamed true skin to shine through them somewhat more vividly. I believe I have forgotten to mention that the skin, previous to each fresh application of the glycerole, ought to be boldly washed with a soft sponge, well moistened with warm soap-and-water.

ON LITHOTOMY AND LITHOTRITY IN THE LONDON HOSPITALS.

By WALTER J. COULSON, F.R.C.S.,
Senior Surgeon to the Lock and St. Peter's Hospitals.

A PAPER, of which the following is an abstract, was read before the London Medical Society on Monday, March 13, 1876:—

Mr. Coulson commenced his paper with a reference to an instructive Address on Surgery recently delivered by Mr. Cadge at a meeting of the British Medical Association.

Mr. Cadge had obtained returns from eight of the principal London hospitals, which showed that each of these hospitals received, on an average, seven cases of vesical calculus annually. The object of Mr. Cadge was chiefly medical; he desired to ascertain the relative proportions of lithuria in different districts; but the author of the present paper considered the subject under its surgical aspect, and for his data relied on the reports annually issued by the four great hospitals, viz.:—Guy's, St. Thomas's, St. Bartholomew's, and St. George's. To these he has added the statistical information derived from the Registries of St. Peter's Hospital for Stone and the special departments in London and Paris. Instead, however, of taking the numbers of vesical calculus, he has taken the operations performed for the cure of stone in the bladder—in other words, the cases of lithotomy and lithotrity. The paper is accompanied by numerous statistical tables, which exhibit for each hospital the number of cases treated annually during a period of five successive years, and the results thereof.

The following are some amongst the principal conclusions at which Mr. Coulson arrives from the statistics furnished in his tables. Taking the broadest view of the matter, *i.e.*, considering the general results of the two operations, massed together, the author finds "that the number of cases of vesical calculus treated by operation in the four great hospitals above named during five consecutive years was 148; while the number of deaths was twenty-four. The general mortality was, therefore, one in six and one-sixth. At St. Peter's Hospital during the same period the number of operations was sixty-seven, and the deaths six; the general mortality being one in eleven and one-sixth, or nearly one-half. This remarkable difference the author attributed to the kind of operation selected. In the great hospitals lithotomy is the operation chiefly selected; while at St. Peter's the operation most frequently selected is lithotrity. This is a general view only. The question of age must be considered, if we institute a comparison of frequency between the two operations.

In some reports ages are given, in others not; but, allowing a proportion of one-third for persons under sixteen years of age, the tables show "that the proportion of adults cut in the great hospitals to adults crushed is as eighty-two to twenty-nine"; hence, lithotrity is applied to one-third of the total number of cases only. At St. Peter's, where the ages are recorded, the author finds that lithotrity is applied to three-fourths of the cases operated on.

M. Civiale had, long ago, made the same remark, showing that the great hospital surgeons of Paris applied lithotrity to one-third of their cases only, while he applied it to three-fourths. Several returns from large provincial hospitals seem to show a similar preference for lithotomy. The preference, however, is more clearly shown in one of the tables, from which it follows that the total number of operations of lithotrity in the four great hospitals during a period of five successive years was twenty-nine; while at St. Peter's, during the same period, the number was forty-four—considerably greater than all the four put together.

Results, however, form the most important point to consider. In the great hospitals the death-rates of lithotrity and of adult lithotomy are nearly equal, being as six to seven. At the Stone Hospital, lithotrity is twice as successful as lithotomy. Again, the author shows that the reports of the four great hospitals show for lithotrity twenty-eight cases, with five deaths; while at St. Peter's the cases were forty-three, and deaths three. Finally, the author brings to light a remarkable coincidence between the results of lithotrity as applied in the three special departments at Paris, Berners-street, and Gower-street. In the special department of University College Hospital the mortality of lithotrity is one in sixteen; at the Necker Hospital the mortality is one in fifteen and three-fifths (for twelve years); at St. Peter's Hospital (for five years) the mortality is one in fourteen and one-third.

The paper concludes that the difference of results so often exhibited by the tables points towards a neglect of lithotrity in the great hospitals, and to the necessity of rendering the treatment of vesical calculus by the operation of lithotrity a special department of surgery.

QUACK MEDICINES.—A firm of chemists writes:—"The number of deaths caused by accident in taking patent medicines is far exceeded by the total fatal results from overdoses by medical men, or by errors in dispensing from prescriptions."

WE learn from our contemporary *Nature* that the Cambridge Museums and Lecture-rooms Syndicate report an urgent need of increased accommodation in the department of zoology, comparative anatomy, and physiology, and recommend that steps be at once taken to supply the want. They suggest the erection of a building, to consist of three floors, with cellars under the central portion, adjacent to the present Museum.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES UNDER THE CARE OF MR. HENRY SMITH.

[For notes of these cases we are indebted to Mr. A. B. Barrow F.R.C.S., Surgical Registrar.]

Case 1.—*Fatty Tumour of Right Mammary Region in a Male—Removal—Recovery.*

Thomas W., aged forty-seven, was admitted on June 2, 1875.

History.—Present Attack: Four months ago he first noticed a swelling close to the nipple on the right side, his attention being drawn to it on account of its weight. It did not make the gland much larger than the parts in the corresponding situation on the left side at this time, but the swelling has gradually increased since. It has not given him any pain. Individual: He has lived rather freely. He was in Constantinople in 1855, and had a severe attack of dysentery; since which his digestive organs have been very much disposed to get deranged, and he has had frequent attacks of vomiting. In 1858 he had jaundice, and was an in-patient of St. Thomas's Hospital. He had gonorrhœa and syphilis twenty-five years ago. Family: Particularly healthy. Father and mother still living.

Condition on Admission.—A tumour exists on his right side on a level with the nipple. It is oval in shape, its long axis extending outwards from the nipple for six inches, and being transverse to the axis of the body. It measures about two inches and a half across. The surface is slightly irregular, but soft and elastic; the skin is freely movable over it. The nipple is not at all depressed or adherent, and the tumour moves freely upon the deeper structures. The superficial veins are a little more evident on this side than on the other. No enlarged glands can be felt in the axilla.

Treatment and Progress.—June 4: Gout attacked both toes, and gave him considerable pain and disturbance. 5th: The patient being under chloroform, Mr. Smith made an incision over the tumour, and enucleated it without further use of the knife. It was of fibro-fatty variety. The wound healed almost entirely by first intention. The gout continued more or less for a fortnight. The patient was discharged well on June 20.

Case 2.—*Scrofulous Tumour of Right Testicle—Removal—Recovery.*

Samuel R., aged forty, a carpenter, was admitted on September 14, 1875.

History.—Present Complaint: Three years ago he noticed that the right testicle was a little larger than the left, but he did not experience any pain, except when he pressed it. It did not seem to increase until four or five months after this, when he went to a doctor and had it strapped up. It still continued to increase, however, causing him so much pain that he was obliged occasionally to give up work. In February, 1873, he attended as an out-patient under Mr. Bell. Scott's dressing was applied; after this it diminished considerably in size, and became very much easier. It continued in this state for some months, but then again began to grow, and has been gradually growing since. He has had great, but not constant, aching, heavy pain. About a month ago it broke on the outside, and a quantity of matter came from it; it has been discharging constantly since, and the opening has increased. Since this occurred the pain has been less, and he thinks it has diminished in size. His general health has been good during this time, with the exception of a rheumatic attack, which occurred last January. Individual: He has never been laid up by illness. Four years ago he used to vomit after every meal, but this has not occurred since. He has lived temperately. Has never had any venereal disorders. He is the father of two children. Family: Father and mother died of old age; brothers and sisters healthy.

Condition on Admission.—He has a tumour of the right testicle, about the size and shape of a large pear, the apex of which points downwards, and a round opening about the size of a shilling exists on the outer side, at the bottom of which a yellow slough can be seen. The edges are a little undermined. The surface of the tumour is smooth, and the skin is freely movable over it except around the ulcer. The veins over it are a little dilated. The outline is regular, except at the apex, which is slightly separated from the rest by a constriction extending quite round the tumour; and behind a soft fluctuating prominence exists. The cord is rather enlarged. No lumbar glands can be felt. He does not complain of pain in the organ, but it is a little tender, especially at the semi-fluctuating spot at the posterior part, on manipulation. The cord is also a little tender. He is a pale-looking, spare man. There are not any signs of constitutional derangement.

Treatment and Progress.—Rest in bed. Liberal diet. ℞. Mist. ferri perchlor. ℥j., t. d. s. September 18: Castration by clamp and cautery. The tumour presented the characters of scrofulous disease. He made a rapid recovery, and was discharged on October 20, 1875.

Case 3.—*Epitheliomatous Ulcer of Thigh—Amputation—Recovery.*

William T., aged seventeen, a blind-maker, was admitted on March 4, 1875.

History.—Four years ago he had an ulcer form on the inner side of the right thigh. He thinks it was caused by a fall on the ice, which gave rise to a painful swelling about his knee, obliging him to keep to his bed for two months. This was poulticed, and, bursting, left the ulcer. This healed after some long time; but about three months after, another abscess broke on the outer side of the same thigh at its lower part. This healed; and about a year afterwards he received a blow from a stone thrown at him, at just about the same situation. A swelling very soon followed and broke, and did not heal, but continued to extend both superficially and deeply, discharging a considerable quantity of matter. The old wound also opened again. He has not suffered a constant nor very great pain from it; but every now and then a severe burning pain has attacked it, and during the last five weeks this has become especially severe, and has been accompanied by very painful startings of the limb. With the exception of this he has always enjoyed very good health, and has led a very temperate life. There is a family history of phthisis, but not of any other specific malady.

Condition on Admission.—The leg is semi-flexed. The lower part of the thigh is much swollen, and a large ulcerated-looking wound exists on the inner side of the thigh and popliteal space, as well as a small fistulous opening near the tendon of the biceps on the outer side of this space. A more careful examination was not made.

Progress and Treatment.—During the time that he was waiting for his bed to be got ready for him, bleeding occurred from the inner opening, and he lost about a quart of blood. This was controlled by the pressure of a bandage. Slight hæmorrhages occurred twice during the night, and were arrested by the tourniquet and plugs of perchloride of iron. March 5: At two o'clock more rapid hæmorrhage occurred, evidently of an arterial kind, and Mr. Henry Smith was called to see the patient, when—from the consideration that the ulcer was of a malignant nature, and that attempts to arrest the hæmorrhage would have but temporary effect, and as no bleeding vessel was visible, and the patient being now much blanched and exhausted—he decided that immediate amputation was necessary, so, chloroform having been administered, he removed the limb (anterior and posterior flap operation), the external iliac artery being compressed by Mr. Wood. There was no loss of blood during the operation. The patient was then ordered a teaspoonful of brandy every quarter of an hour, and was directed to be placed in a warm bed. On examination of the limb it was found that the ulcer extended into the popliteal space and into the lower part of the thigh. No vessel could be found which had been ulcerated into. The knee-joint was healthy. Microscopical examination of the diseased tissue showed some epithelial nests, large flat free nucleated cells, and hypertrophied papillæ. The constitutional disturbance was at first very great and threatening, but still he improved from day to day. The temperature was, and has remained all through, very fluctuating. The stump at first was very deficient of action, and discharged a most offensive dark-coloured matter. This, however, gradually improved. 25th: He is looking quite fat, and is making rapid progress. The stump is healing rapidly. On June 10 the stump had quite healed, and the patient was discharged well.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MARCH 25, 1876.

THE MIDWIFERY LICENCE OF THE ROYAL COLLEGE OF SURGEONS.

The letter, published elsewhere in our columns, from Dr. Barnes explains the immediate cause of the dead-lock—if we may so call it—which at present exists at the College of Surgeons with regard to the examination of "persons" desirous of obtaining the College certificate of qualification in Midwifery. It is well known that the Council of the College have decided to admit to examination for this qualification three ladies who have obtained, in Edinburgh and at the London Medical College for Women, a large amount of professional education, though not the amount and in the manner required by the regulations of the College; but as none of these candidates possess any medical qualification, and the possession of the College qualification or licence in Midwifery would admit them to the Medical Register, thereby making them legal practitioners, the determination of the College has called forth very grave opposition and remonstrance. The Obstetrical Society of London and the Metropolitan Counties Branch of the British Medical Association have passed, and sent to the College, strongly worded resolutions against it; and Dr. Barnes, one of the College Board of Examiners in Midwifery, has resigned his seat on that Board rather than be a party to the admission to the midwifery certificate of persons imperfectly qualified for medical practice,—for it is important to observe that the remonstrances addressed to the College, and Dr. Barnes' action in the matter, are not based on the fact that the candidates immediately affected are women, but on the ground that they possess no other medical qualification, and that the midwifery certificate alone will not give proof that they have "that full degree of knowledge and skill in medicine and surgery which is held to be essential for the safe practice of the healing art." The Council of the Obstetrical Society, in the resolutions which they forwarded to the Council of the College, beg leave "to represent to the College how injurious to the general interests of the public and the profession would be the admission of persons to the Medical Register so imperfectly qualified for medical practice," and Dr. Barnes' resignation as examiner seems a most natural and necessary outcome of the proceedings of the Council of the Society. The two other special examiners are Dr. Arthur Farre and Dr. Priestley. Dr. Farre stands in a more independent position with regard to the Society than does Dr. Priestley, and feels, we believe, a great reluctance to deprive the College of his services in their present immediate difficulty; but it is not easy to see how Dr. Priestley, as the President of the Obstetrical Society, can retain his office at the College in face of the resolutions we have referred to. We believe, indeed, that both he and Dr. Farre have informed the Council of the College that they cannot hold their offices there after the July examination; but, should that examination be held, the evil so earnestly deprecated may be done.

This, however, may not—and we hope will not—happen. These gentlemen have, we believe, declared that they will decline to examine unless the Midwifery Board is complete, and at present no one has been found to accept the seat vacated by Dr. Barnes. We trust that the vacancy will remain unfilled.

Some sympathy may, nevertheless, be felt perhaps for the Council of the College in the difficult position in which they are placed. When the Supplementary Charter (1852) was obtained, authorising the College to give a qualification in Midwifery, it was intended, we imagine, to be an additional or supplementary qualification, or to supply really educated midwives, and it was probably never thought that it alone could be used as a pass to general practice; but a greatly increased value and potentiality was given to it when, under the name of the "Licence in Midwifery of the Royal College of Surgeons of England," it was inserted in schedule (A) of the Medical Act, as entitling its holder to be admitted on the Medical Register. Still, were the examination for it as wide and full as the required education of the candidates, we do not know that there would be much room for complaint; for the candidates are required to have been engaged during at least four entire years in the acquirement of professional knowledge; to have completed, at recognised schools, the professional education required for the diploma of member; to have attended one course of lectures on midwifery and the diseases of women and children; and to have personally conducted thirty labours; while candidates already in possession of a qualification need produce evidence of having conducted only twenty labours. But the examination as to knowledge of medicine and surgery is not full and complete; and the three candidates proposed now to be admitted to examination have not even fulfilled the requirements of the College regulations.

The position taken by the Council is, we understand, this—or something very like it:—'The candidates have obtained, in Edinburgh and London, such an amount of professional education that, were they men, they would be admissible as candidates for the diploma of the Royal College of Surgeons of Edinburgh, the curriculum of that body recognising individual lecturers as well as institutions; but that College has no power to admit women to examination. We, however, *may* admit to examination for our midwifery licence any "person" presenting proof of having complied with certain specified regulations; and the diploma or licence of the Edinburgh College of Surgeons would be accepted in place of the greatest part of those proofs. And we are further advised by our legal officers that women may, therefore, compel us to admit them to examination; and may, perhaps, also compel us to reframe our own regulations, so as to make their compliance with them possible. We feel, therefore, that we

ought to admit these three women candidates, or persons, to examination.'

Ought not everyone to recognise that the Council are actuated by feelings of generous liberality, tender sympathy, and loyal submission to the law, and perhaps, also, a loyal desire to help the Government? for, remembering the suggestion made by the Lord President of the Privy Council on a late occasion, that the Examining Board should take action and so relieve the Legislature of a difficulty, it may be suspected that some gentle pressure or moral suasion has been indirectly applied to the Council of the College. We, however, still venture to think that the Council are making a grievous mistake; and that they should wait for legal compulsion before taking a step that may lead to the admission of persons imperfectly qualified for medical practice to the Medical Register. They may remember, moreover, that their legal officers have not always proved safe advisers; and, indeed, led them woefully astray not very long ago.

It has been suggested that the College should apply for an amendment of their Charter; but it must be remembered that the enabling Act obtained by the College last year contains a clause saving all rights (if any) and obligations of the College to admit women to certain examinations. Without that clause the enabling Act would not have been obtained; and nothing short of another Act can alter the rights reserved by it. He would be a very sanguine and bold man, however, who would at present go to Parliament for any measure placing, or seeming to place, any new difficulties, or preserving any old ones, barring the entrance of women into any profession.

THE DISCUSSION ON SYPHILIS AT THE PATHOLOGICAL SOCIETY.

Contrary to expectation, the discussion on syphilis occupied the whole time of the Pathological Society on Tuesday evening, and Mr. Hutchinson's reply was postponed till the next meeting. This extension of the debate, however, was not without advantage, as it gave us an opportunity of hearing two distinguished speakers whose utterances are always welcome to the profession: these were Sir William Gull and Mr. Simon. But the discussion, as a whole, did not add greatly to our stock of knowledge, and a good deal depended on verbal criticism as to what was and what was not a blood disease; but Dr. Greenfield seemed, at all events, to add something to our knowledge of deposits in what is called the secondary stage of syphilis.

Mr. Thomas Smith began the debate in a clever speech. His main point was that the hereditary transmission of syphilis whilst in the tertiary stage clearly showed that the disease in this phase was still active, and did not consist of sequelæ merely. He contrasted and compared gout with syphilis in this respect. Did any woman ever acquire the gouty tendency from a fœtus, as is the case with syphilis? But this and many other circumstances all tended to show that syphilis was a real blood disease to the last.

Sir William Gull said that the very origin of syphilis, and its connexion with the germinal matter whereby the species was procreated, suggested that it would be an all-pervading disease. It had been called a blood disease, but, in truth, it was a flesh-and-blood disease. It had been called a fever; true, but it was not like other fevers. Small-pox, for instance, left the fœtus unaffected and uninfluenced; not so syphilis. Neither was it influenced by lapse of time. True, it might be limited in a healthy individual, but seldom when it was accompanied by its two ordinary concomitant deities—Bacchus and Mercury. Then, again, a father might beget a child apparently healthy, yet by the introduction of the syphilitic poison along with the vaccine virus the whole chain of phenomena might be gone over again. He also narrated some interesting cases, in one of which he asserted he had been able to suggest the existence of syphilis from a peculiar odour of the sweat.

Mr. Simon thought that Mr. Hutchinson's questions were too categorical: he wanted "yes" or "no" for an answer; where it should be "more" or "less." He, too, objected to the term "blood disease." No doubt at one stage the blood was abundantly full of the special contagium of syphilis, but so were other fluids, as the sperm, and even the discharge from vaginal catarrh; but by-and-by the quantity began to diminish, and its poison to lessen, till it became a question of chance whether sufficient poison was left to propagate the disease. He did not think the heredity of syphilis was to be likened to that of gout: this last was more a feature of family likeness, just as certain forms of nose run in certain families. Syphilis had been accused of giving rise to many disorders, but these were all more or less uncertain in their definition—scrofula, for instance. The results of syphilis were not so much indicative of variety of effect as of variety in intensity of the poison; and this was common to all infective diseases. He hesitated to accept Mr. Hutchinson's notion of gummata being a recrudescence of secondary effects. He rather thought that the poison remained in the part in a state of rest till called into activity by some new force. To the question, "Does syphilis ever appear in more than one generation?" he was inclined to say "Yes." In one case, where the father had died of syphilis, the daughter gave birth to a child apparently syphilitic, and that, too, with no renewal of the disease in her case.

Mr. John Wood referred to the curious spectacle of such a contention at the present day between humoralists and solidists. He believed that the difference in the results seen as following syphilitic infection was due to the virulence and dose of the poison, or to the opposition of the constitution.

Surgeon-Major Robinson, Mr. Vining, and Dr. Farquharson followed in short speeches.

Dr. Greenfield brought forward certain new facts, and offered certain interesting speculations. He drew the attention of the Society to the structure of syphilitic new growth, which is adenoid instead of resembling granulation tissue, and is the same at all stages of the disease. The latter fact—that the line of growth is the same throughout—appears to support Mr. Hutchinson's hypothesis of re-growth of residues. Respecting hereditary syphilis, he raised the pertinent question whether the early or "secondary" symptoms are observed in all cases that present the characteristic affections of the teeth, eyes, etc., in later life. He doubted personally whether this was so, and suggested that whatever the source of the specific secondary symptoms, the later ones are the products of a heredity of low connective-tissue growth.

Dr. Gibbon was the last speaker in reply to Mr Hutchinson. In his speech he enunciated many novel and beautiful views on the subject.

UNVEILING OF THE STATUE OF DR. STOKES.

On Thursday afternoon, March 16, the statue of Dr. Stokes, from the studio of the late Mr. Foley, the well-known Irish sculptor, was unveiled by his Grace the Duke of Leinster in the presence of a large and representative gathering, assembled together to do honour to the genius of the distinguished Regius Professor of Medicine in the University of Dublin. The ceremony included the presentation of the statue to the King and Queen's College of Physicians by the subscribers, and took place in the Hall of the College. Dr. Gordon, the President, occupied the chair, and was supported by the Lord Mayor of Dublin (Dr. George B. Owens) and his Grace the Duke of Leinster. The following Fellows of

the College attended:—Dr. Banks, Dr. Hawtrey Benson, Dr. F. Churchill, jun.; Sir D. J. Corrigan, Bart.; Dr. Cryan, Dr. Cruise, Dr. Duncan, Dr. Eustace, Dr. Foot, Dr. Grimshaw, Rev. Dr. Haughton, Dr. Hayden, Dr. Head, Dr. Hudson, Dr. Johnston, Dr. H. Kennedy, Dr. Little, Dr. Lyons, Dr. J. W. Moore, Dr. W. Moore, Dr. A. Smith, Dr. W. G. Smith, Dr. Finny (Registrar). The proceedings were opened by a resolution proposed by the Right Hon. the Lord Mayor, and seconded by the President of the Royal College of Surgeons, to the effect that "the subscribers now authorise and request the Committee to present the statue of Dr. Stokes to the King and Queen's College of Physicians in Ireland." The resolution having been adopted, the Duke of Leinster unveiled the statue amid loud applause; and then Dr. Hudson, speaking in the name of the Committee, said that it devolved on him to present to the President and Fellows, in trust for the College of Physicians, the statue of Dr. Stokes, "a memorial alike honourable to him and to those who had so liberally subscribed to it—a tribute from his colleagues, his former pupils, and his professional friends generally, expressive of their admiration of his talents, their gratitude for his written and oral teaching, and respect and affection for his professional character and personal worth." In performance of the task entrusted to him, Dr. Hudson proceeded to pronounce an eloquent eulogium on Dr. Stokes,—brief enough, indeed, when regarded as a summary of the life and labours of one who has done so much to advance the science and improve the practice of medicine; but too long to be republished *in extenso* in our columns. But we may note that he pointed out that "Dr. Stokes' labours as an author and clinical teacher, commenced in youth and continued to old age, have extended over a period of half a century: his first work on the Stethoscope having been published in 1825, the year preceding his appointment to the Meath Hospital, and his last work on Fever—embodying the experience of a lifetime—in 1874. During the intervening years, his contributions to medicine have been continued with little intermission; and the pages of the *Transactions* of the King and Queen's College of Physicians, of the *Dublin Hospital Reports*, of the 'Cyclopædia of Practical Medicine,' the *Dublin Medical Journal*, and the *Transactions of the Dublin Pathological Society*, contain numerous valuable essays, some of which mark new epochs in pathology and practice." Referring to a few of these, Dr. Hudson said, "his 'Memoir on Pericarditis,' published in 1834, is acknowledged to have 'found pericarditis the most difficult, and left it the most easy of detection of any of the diseases of the heart'; his 'Observations on the Condition of the Heart in Typhus,' and the indications thence derived for the exhibition of wine in that disease—indications more certain and reliable than any previously known, and now forming the necessary complement of all others; his 'Memoir on the use of Opium in Peritonitis from Perforation of the Intestine, and some other Affections,' which, together with the admirable paper of Gooch on a similar subject, has so powerfully influenced the practice of both physicians and surgeons, and contributed to illustrate the great doctrine and practice of physiological rest." In speaking of his classical works on Diseases of the Lungs published in 1837, and on Diseases of the Heart and Aorta published in 1854, he quoted Sir D. Corrigan's opinion of the first as being "hailed with delight, both by those who love their profession as a science, and by those who more humbly, but not less usefully, cultivating it as a practical art, seek in each new page that is presented to them the means of curing or alleviating disease"; and the remark of an English reviewer, that it was "not only a most important and valuable contribution to our knowledge of the diagnosis and treatment of thoracic diseases, but a work justifying the belief that medicine is really assuming the character of an inductive science." While, with reference to the work on Diseases of the Heart and Aorta, he quoted the opinion of a highly competent critic, that, "composed as it is of living pictures of disease, it will last as one of the standards of experience, and take rank beside the works of Abercrombie, Cheyne, and Laennec." Dr. Hudson also spoke of the boon which Dr. Stokes, in conjunction with Sir Dominic Corrigan, the late Professor R. Smith, and other eminent men, conferred upon successive generations of students and practitioners by the institution of the Pathological Society of Dublin. "The object and scope of this Society," he remarked, "might be said to be a reflex of Dr. Stokes' character as a pathologist; not devoted to any school or system, but eclectic; neither regarding morbid anatomy as its first object, but as subsidiary to pathology considered in its widest sense, and embracing the history, symptoms, diagnosis, and treatment of each case of disease submitted to the Society. To this Society Dr. Stokes, as honorary secretary, devoted, for many years, much time and labour, and made numerous valuable and important communications. These, like his other published works, present the combination of accurate observation and clear insight with mature reflection. No mere observer and recorder of random facts, he seems always to have kept in view the ancient maxim—'Ars tota in observationibus, sed perpendæ sunt observationes.'" The speaker also observed that Dr. Stokes, "having at an early period won the confidence of the profession and the public, his life had been one of incessant labour, and his contributions to medicine had been made under the pressure of constant professional engagements." And that he is "a man in whose mental constitution it were hard to say whether the intellectual or the æsthetic predominates; a man gifted with a rich and poetic imagination, with exquisite taste for art—witness his 'Life of Petrie'—and with a rare capacity for the enjoyment of literary and social intercouse." His public discourses on Medical Education were alluded to as showing his praiseworthy efforts to raise the character and status of the profession in Ireland; and the qualities of mind and heart which have endeared him to his professional brethren, his pupils, and his patients, were touched on with affectionate warmth. In conclusion, after mentioning some of the many honourable distinctions that have been conferred upon Dr. Stokes, Dr. Hudson observed:—"He has indeed a full share of 'that which should accompany old age, as honour, love, obedience, troops of friends.' Of these friends and admirers, many have themselves won their laurels; and it must be a source of no small pride and pleasure to Dr. Stokes that this memorial has been most liberally subscribed to by all the leading members of our profession, and some distinguished scientific and literary men in this country," and by many of the most eminent members of the profession in the sister countries; some of whom, indeed, as Simpson of Edinburgh, Sir James Clarke, and Sir Ranald Martin, had already passed to their rest, and others were only prevented by distance or pressing engagements from being present.

The President of the College, in accepting the trust, undertook, on the part of the College, that the statue "should be preserved, honoured, and respected as the memorial of one who, for half a century, has held a place in the foremost rank of elevated science, and whose scientific powers and abilities have been so used as to confer a lasting renown on the College." Dr. Acland, Regius Professor of Medicine in the University of Oxford, and President of the General Medical Council, in moving a vote of thanks from the subscribers to the statue to the Committee of Management, took the opportunity of expressing, in a few well-chosen words, his warm appreciation of the great and manifold abilities and high character of the man whom they had all met to honour. The statue, which stands about eight feet high, is universally considered, we believe, to be an admirable likeness and a magnificent work of art—in every way worthy of Foley's chisel.

THE WEEK.

TOPICS OF THE DAY.

A Local Government inquiry was opened at Birmingham last week, relative to the proposed borough improvements scheme. This was the first inquiry which has taken place under the Artisans' Dwellings Act. The Mayor appeared on behalf of the Corporation, and said notices had been served on 1446 occupiers of property. The total area to be dealt with was ninety-three acres; the population was about 18,000; the number of houses about 4000. All the evils which arose from overcrowding elsewhere existed. Of the 3351 houses in the unhealthy area 2258 were built back to back. The death-rate varied from 28 to 97 per 1000, the normal death-rate for Birmingham in healthy times being about 22 per 1000.

At a special sitting of the Nottingham county magistrates, held on the 17th inst., Mr. George Godforth Wyer, surgeon, of Eastwood, near Nottingham, was charged with illegally detaining his imbecile sister in an unlicensed asylum, and also with cruelly ill-using her. The unfortunate person is a single woman, forty years of age, daughter of Mr. John Wyer, a retired army surgeon, living at Whitchurch. About two years ago she was removed from the Leicester Asylum to the house of the defendant, who was allowed sixteen shillings a week by the father towards her maintenance. Certain unpleasant rumours being current, the Lunacy Commissioners appointed Dr. Tate, of Nottingham, to investigate the matter. That gentleman, accompanied by a police officer, visited Mr. Wyer's house on the 29th ult., and in the attic found the lunatic in a wretched plight. She was sitting with her knees drawn up to her chin, and was in a dreadfully filthy condition. She was undressed, and covered with nothing but a rug, and there was no furniture or fire in the room. A neighbour stated that she had heard the patient crying in the garden, and on one occasion saw her tied to a tree. The magistrates committed the defendant for trial.

An influential meeting of merchants representing the counties of Lancashire, Cheshire, Northumberland, and Durham was held at the Westminster Palace Hotel, on the 17th inst.—his Grace the Duke of Northumberland presiding,—with reference to the subject of noxious vapours emanating from works at St. Helen's. After the meeting, a deputation, including, amongst others, Lord Percy, Lord Winmarleigh, Colonel Egerton Leigh, M.P., Sir Henry Havelock, Sir G. Greenall, and Sir R. Brooke, waited upon the President of the Local Government Board, who promised to lay the matter before the Government, with the view of endeavouring to obtain such an extension of the Alkali Act of 1874 as would be acceptable to those who now suffer under the grievance.

The *Levant Herald* states that no particulars of the outbreak of plague in Mesopotamia have been received since the announcement of its appearance at Hillah. A party of medical officers, accompanied by two battalions of soldiers, have started from Bagdad for the purpose of forming a sanitary cordon round the infected locality.

In his report for the month of January last, Dr. Corfield, Medical Officer of Health to the Parish of St. George, Hanover-square, calls attention to the necessity which exists for communicating to officers of health every outbreak of infectious disease in a district. He remarks:—"It is my duty again to observe that on the average one death a week occurs from scarlet fever (not to mention the other infectious diseases), and that I am still deprived of the means of ascertaining, in the greater number of cases, where those deaths occur, and so am unable to stop the spread of the disease by means of infected bedding, clothes, etc., and I have no doubt whatever that the number of cases of such diseases is much increased by the want of due sanitary precautions. Again, after almost every case of enteric (typhoid) fever, we are able to point out radical defects in the sanitary arrangements of the house, and to get them remedied, and so to prevent the disease reappearing; but numerous deaths from this disease have occurred during the past year without my having any knowledge of the localities in which they took place."

An inquest was held last week by Dr. Hardwicke, at the House of Correction, on the body of James Hay, aged forty-four, a prisoner, who died from bronchitis, the verdict being "Death from natural causes." At the close of the inquiry, Dr. Smiles, the prison surgeon, said there had been only three deaths in the establishment this year, although the prisoners at one time numbered more than 2000. The coroner and the jury expressed an opinion that such a state of things was highly creditable to the management and the medical supervision exercised.

The returns of the Registrar-General in Ireland show that during the quarter ended December 31 last there were registered in the 793 Registrar's districts in Ireland 31,960 births—a number equal to an annual birth-rate of 24·1 in every 1000 of the estimated population,—and 22,990 deaths, representing an annual mortality of 17·3 per 1000. In the same period 7334 emigrated; an increase of 1636 would, therefore, appear to have taken place in the population during the period under notice. The registered births in Ireland are again under, and the deaths over, the average for the corresponding quarter of the previous five years, the increase in mortality being chiefly amongst the old. The deaths from scarlet fever are slightly over those in the preceding quarter, the disease still proving very fatal in Ulster; but the returns show an almost complete freedom from small-pox; and the total mortality from the principal zymotic diseases is under the average for the fourth quarter, and less than in any quarter since the September quarter of 1873. There were 692 inquests reported during this quarter, the number being equal to one in every thirty-three of the total deaths registered.

Continuing the history of the recalcitrant Chairman of the Keighley Board of Guardians, we have now to report that last week this gentleman (Mr. Milner) was brought before the Bench of Magistrates, having been remanded from a previous sitting, for refusing to obey an order of the Bench requiring him to have his child vaccinated. As he still declined to comply with the law, he was fined 10s. and costs, the alternative being fourteen days' imprisonment. Mr. Milner expressed his determination not to pay the fine, and was ordered to be locked up. At the moment we are not aware what the law may be on the subject, but we should imagine the conviction must disqualify him from holding a seat at the Board of Guardians for Keighley for the future.

In his annual report on the mortality in England, just published, the Registrar-General enters at some length into the question of the disposal of our dead, and his views seem pretty evenly balanced between burial and cremation. The report says:—"In comparing the two methods, their cost in ceremonial and monuments may be set down as equal—it may be either great or small; but the indispensable outlay in inhumation and cremation will differ to an extent that experience alone can determine. On the side of public health, cremation has the best of it: it destroys the germs of zymotic diseases, of offence, and corruption, at once. It is especially suitable to the dead by epidemical diseases. The present abuses of a barbarous burial system must cease. But there is no reason why a well-devised inhumation and perfected cremation should not go on side by side, the one or the other being adopted so as to meet the exigency of each case, creed, place, and climate. Neither of the systems, when once in use, will excite in common minds more repugnance than Nature, desiring her

creatures to love life, has thrown over the contemplation of dissolution. The question of interment is, as the population increases, becoming every day more urgent: it is not a mere question of sectarian grievance; it is a prime question of public health. Churchyards infect cities; burial must be shorn of its dangers. It is vain to attempt to throw all the blame of existing abuses on the undertakers. Their occupation is not attractive; it is unhealthy. They do very fairly what they are required to do by families who are swayed by fashion. Nor is it in England a matter of great reproach against the proprietors of cemeteries that they are 'trading companies.' What would the state of London be without its fourteen cemeteries, some of which are now full? The day will probably soon come when the several municipalities and sanitary authorities may, after due inquiry, and on equitable terms, relieve the cemeteries and yards of their office; and lay down such wise regulations as may secure the decorous, safe inhumation or cremation of the 700,000 bodies that fall victims to death annually in the United Kingdom."

The Managers of the Glasgow Royal Infirmary, in virtue of the powers conferred upon them by Royal Charter, intend to institute a School of Medicine in connexion with the Infirmary, which contains upwards of 570 beds. They have already advertised for lecturers on chemistry, anatomy, physiology, medicine, surgery, midwifery, materia medica, medical jurisprudence, and pathology.

It is stated that the Local Government Board do not intend to hold an inquiry into the causes of the Eagley epidemic, being satisfied with the reports made to them by the Turton Local Board.

We regret very much to hear that Sir Cordy Burrows is lying seriously ill at his residence, Brighton, and that only faint hopes are entertained of his recovery.

The sum received by the treasurer of the Liverpool Hospital Saturday Fund amounted on the 17th inst. to £1688 19s. 3½d.

THE USE OF FORCEPS IN OBSTETRIC PRACTICE.

In his annual clinical report, Dr. G. Johnston, Master of the Rotunda Lying-in Hospital, Dublin, states that during the year ending November 5, 1875, the forceps were used in the practice of the Hospital 113 times, or once in about every nine and one-eleventh cases. "This," he says, "may appear to many as a very large proportion, and some may cavil at the system we have adopted; but the further we pursue the practice, the more we see the advantages arising from it, in preventing serious consequences to both mother and child—the mother being saved from lengthened agony, prolonged too often to a serious extent; from the effects of exhaustion, rendering her liable to inflammation of the soft parts, with all its direful results, such as sloughing and its consequences (fistula, pyæmia, peritonitis, etc.); and the child's life preserved by not allowing it to encounter too long the danger resulting from the protracted pressure, both by the compressing of the head in the pelvis, and the evil results of the contraction of the uterus around the child and the placenta, thus cutting off the supply so essential to its fœtal existence." In reply to the objection that the forceps is a dangerous instrument, he mentions that of 752 instrumental cases within the last seven years, in no one instance was injury inflicted by the instrument on the soft parts of the mother, and he contends that if proper precaution be taken in their application, and by making the traction in the proper direction, withdrawing the blades as soon as the head has been brought sufficiently near the outlet, there cannot be, in the hands of the skilful practitioner, any injury produced. His experience leaves no doubt that such practice tends to the more favourable convalescence of the patient. As to the form of forceps which is used in the Rotunda Hospital, Dr. Johnston states that the forceps which were at first used were of the straight form, both long and short; but finding on frequent occasions that they slipped, recourse was had, about five years since, to the double-curved variety of Barnes; and he has satisfaction in saying that the more they employ them, the more reason they have to be perfectly satisfied with them, inasmuch as they have been proved to be safe, easy in their application, and most efficient in their powers of extraction. At the same time, these instruments do not compress the child's head to any injurious extent, and are perfectly available whether the head is above the brim, in the brim, or in the cavity.

UNCERTIFIED DEATHS IN GLASGOW.

The Glasgow Police Board have at present under consideration a valuable report drawn up by Dr. Russell, Medical Officer of Health. The report, which refers to uncertified deaths and gratuitous medical relief for the poor, has already been fully considered by the Health Committee of the Police Board, and they have resolved upon the following recommendations:—1. That measures should be adopted for obtaining for Scotland additional facilities for investigating, and subsequently certifying, all cases of uncertified deaths. 2. That the attention of the various parochial boards in the city should be directed to the subject of the report; and that the Committee should further suggest to these boards the propriety of adopting measures for the purpose of giving greater facilities to the poor in obtaining gratuitous medical advice and medicines. 3. That an official copy of the report should be sent to the following gentlemen, and their attention directed to the contents thereof—viz., the Lord Advocate, the Sheriff of Lanarkshire, the Registrar-General for Scotland, the Board of Supervision, the Members for the city, the Principal of the University, the President of the Faculty of Physicians and Surgeons, the Directors of the Royal and Western Infirmaries, the chairmen and inspectors of the poor of parishes in Glasgow, and others officially interested. The Police Board, in view of the important matters treated of in the report, have delayed consideration of it till their next fortnightly meeting. In Glasgow, as compared with English towns, the proportion of uncertified deaths is very large, upwards of 22 per cent. of the total deaths being uncertified.

THE UNRESTRICTED SALE OF QUACK MEDICINES.

It is gratifying to observe that the attention of Government has been directed to the number of deaths of young children that occur from the sale of poisonous compounds as quack medicines. In the House of Commons, on Monday evening, Colonel Leigh asked the Secretary of State for the Home Department whether he saw any objection to obliging all owners of quack medicines to declare the ingredients of which the doses were made previously to being allowed to sell them, as is done in France; and in reply thereto, Lord Sandon stated that the subject is under consideration, but he is unable to state the course that will be adopted at present. If the sale of quack medicines containing poisons is to be permitted, it is certainly desirable that the composition of the particular compound should be plainly stated on each bottle, and the sale should be placed under the same restrictions as obtain in the sale of poisonous drugs generally.

THE INTRAVENOUS INJECTION OF AMMONIA IN SNAKE-BITE.

Referring to a case in which a lady died fifty-two hours after being bitten by an Australian snake, notwithstanding treatment by the intravenous injection of ammonia, the *Melbourne Daily Telegraph* says—"The lady was bitten and died. In the early reports of her case, it was merely mentioned that the usual remedies were resorted to, and no allusion whatever was made to the ammonia treatment; but the facts as stated aroused our suspicions, and we were induced to put the ques-

tion point-blank, and the *Riverine Herald* has since ascertained that ammonia was injected two hours after the bite, and that the treatment was continued extensively until death. Here is an explicit instance of non-success with the ammonia cure; and it would be curious to know how many other failures occur, and receive the benefit of a discreet silence. Is it only the instances of recovery that are blazoned abroad? However this may be, the sad end of the Swan-hill lady greatly strengthens the view of the Indian Commission—namely, that when a dose of venom sufficient to kill has been injected by the snake, ammonia is powerless." There may have been some special reason why, in this case, the ammonia remedy failed to produce the marked beneficial results that have been reported in other instances, but it is to be feared that the intravenous injection of ammonia is not such a reliable antidote as its partisans are willing to believe.

ALLEGED NEW DISEASE.

The Mohammedan Deputy-Collector of some villages in the Salem District reported the outbreak of a new disease in November, 1875. Men in strong health were said to be seized with sudden violent pain in the sole of one foot, like a scorpion-sting; this pain runs rapidly to the head, the belly swells, difficult breathing, unconsciousness, and lock-jaw quickly follow, and death ensues in a very few hours. Luckily, a remedy was at hand. The contents of the intestines of a goat, dried and powdered, and mixed with hot water, form a potion the use of which is infallibly followed by a recovery as rapid as the access of the disease. The Mohammedan sub-magistrate did not think any medical advice or inquiry needful, for the remedy is certain; the worst of it is that the breed of goats is in danger of being exterminated through the anxiety of the people to have some of the preservative powder to carry about with them. Nevertheless, Surgeon-General Balfour caused an inquiry to be made by Surgeon W. G. King, from which it appeared that, after deducting all exaggeration, the disease was a very mild cerebro-spinal meningitis, and that the goats'-dung powder was inert.

THE NORMAL DIGESTION OF INFANTS.

An essay by Dr. Wegscheider, of Berlin (vide *Centralblatt*, No. 3, 1876), based on the microscopical and chemical examination of the fæces of a number of healthy infants between two and three months old, whose diet consisted entirely of breast-milk, reveals some interesting facts with regard to the various changes which go on in the digestive tract at that early period of life. The fæces were simply scraped from the napkins, and then preserved, without the addition of water, in well-stoppered bottles.

The colour of the motions of healthy infants varies between that of yolk of egg and greenish-yellow; their reaction is always acid. Their consistence is very variable, and ranges from an almost completely dry to a thin liquid character. Their smell is never offensive, but resembles that of sour milk. The fæces always contain whitish fibrinous-looking flakes, which are proved to consist of fat, with probably some intestinal epithelium. The fats consist of palmitin, stearin, and olein. Besides fat, the fæces appear to contain traces of peptones. Sugar was not found in any appreciable quantity.

The remains of the secretions of the digestive tract are found in the fæces in considerable quantity. Mucin is present in variable amount, and its presence can be chemically proved by the precipitate, insoluble in excess, which acetic acid produces in an aqueous solution. Bile-pigment exists, both free and also in combination with bases. Choleic acid can be detected in a free state in a solution made by extracting the fæces with alcohol. Cholesterin occurs in considerable quantity, but Dr. Wegscheider does not consider that it is entirely derived from the constituents of the bile. With regard to those bodies which are the products of transformation of the food and of the digestive secretions, neither leucin nor tyrosin can be chemically detected in the fæces. On the other hand, large quantities of saponified fats, in combination with lime and magnesia, are present, and are thus wasted for nutritive purposes. In a watery extract of the fæces Dr. Wegscheider found traces of diastatic and pancreatic ferments, but no pepsine. In consequence of the difficulty of keeping the fæces free from admixture with urine, he did not examine them for urea.

The most important conclusions which Dr. Wegscheider draws from his researches on the fæces of infants, in relation to their digestive functions, are the following:—(1), The albuminous constituents of the milk are completely absorbed; (2), the white residue which is found in the fæces, and is usually regarded as casein, is *not* casein, but chiefly fat, with some admixture of intestinal epithelium; (3), the unabsorbed fats leave the bowel partly as soaps, partly as free fatty acids, and perhaps partly as unaltered fat; (4), urobilin and unaltered bilirubin occur in the fæces, and biliverdin is also found in diarrhœal stools.

THE ABERNETHIAN SOCIETY.

The annual general meeting of the Abernethian Society (St. Bartholomew's Hospital) was held on Thursday, March 16; Dr. Vincent Harris, President, in the chair, and ninety-two members present. From the Secretary's statement, it appeared that there had been nineteen ordinary meetings of the Society during the session, with an average attendance of rather more than thirty-one members; that fifty-six new members had been admitted during the session; and that the balance in the hands of the treasurer was £73 3s. 1d. The following gentlemen were elected officers for the ensuing year:—*Presidents:* Mr. Keetley, Mr. Macready. *Vice-Presidents:* Mr. Mills, Dr. Wharry. *Honorary Treasurer:* Mr. Savory. *Honorary Secretaries:* Mr. Darbishire, Mr. Pye. At the close of the meeting a vote of thanks to the outgoing officers, proposed by Dr. Herbert Taylor, and seconded by Dr. de Havilland Hall, was unanimously accorded.

MEDICAL SOCIETY OF LONDON.

At the meeting of the Medical Society of London, on Monday last, Dr. Richardson exhibited a most ingenious apparatus which was originally constructed for an exhausting bottle to be used in embalming; he had used it as an aspirator, and for injecting food either by the œsophagus or as enemata into the bowel, and he believed it could further be applied for transfusion. He also showed a new instrument for artificial respiration—a modification of the double-acting bellows,—the drawback to which is, that so many strokes per minute are required that the efforts to restore life are frustrated. He considers it particularly useful in tracheotomy followed by suffocation when the muscles of the chest are worn out; and, lastly, he showed a tracheotomy-tube with a screw attached, by which the blades can be dilated after introduction. The makers of these instruments are Messrs. Krohne and Sesemann.

A NEW PLAN FOR DETECTING BILE-PIGMENT IN THE URINE.

For the clinical demonstration of the presence of bile-pigment in urine, Dr. Rosenbach, of Jena (*Centralblatt Med. Wiss.*, No. 1, 1876), recommends the following methods as an improvement on those ordinarily employed:—The urine is filtered through ordinary white filter-paper, by which means the latter is rendered of an intense yellow or brown tint. If a drop of slightly fuming concentrated nitric acid is now allowed to fall on the inner side of this prepared paper—that is to say, on the side which was turned towards the fluid—the spot which it touches becomes yellow, then yellowish-red, and at the edge of a beautiful violet tint; further out there forms

an intensely blue ring, which passes over almost immediately into an emerald-green colour. It is best to use the paper in the moist state, without allowing it to dry after filtration. The play of colours produced by the acid is beautifully shown by allowing a drop to trickle down the inner surface of the filter, the reaction becoming more intense the nearer the acid gets to the apex of the cone. If the filter be allowed to dry and put aside for a few days it is only necessary to moisten it with distilled water, and then to use a drop of acid, to obtain a characteristic play of colours. The reaction does not occur in highly coloured urines which are not icteric.

DEATHS FROM SNAKE-BITES IN INDIA.

The Calcutta correspondent of the *Times* states, on the authority of Dr. Richards, of the Indian Medical Department, that during the year 1873-74 the number of cases of snake-bite reported in the Lower Provinces and Assam was 4202. Of these, no fewer than 3565 were fatal. In about one-half of the cases the victims were bitten during sleep. Natives of the lower classes generally sleep upon the ground, and snakes entering the houses often crawl over the sleeper. If the sleeper lies quiet, the snake seldom bites; but if, feeling something cold gliding over a limb, he moves it instinctively, the snake turns at once and bites. It is remarkable that the proportion of women bitten was greater than that of men. In Bengal proper the majority of deaths are credited to the cobra, whilst in Behar the krail seems to be most fatal.

THE PROVIDENT SURGICAL APPLIANCE SOCIETY.

The Provident Surgical Appliance Society is making an appeal to the public to raise the sum of £300 in order to enable it to clear off the remainder of the liabilities incurred in establishing the charity. Towards this sum one of the Vice-Presidents of the Society has offered to contribute £30, provided the whole amount is raised by the end of the present month. The Society was established for the purpose of providing trusses, crutches, etc., for persons with small means, without the necessity of obtaining letters of recommendation. The number of appliances issued in 1873 was 696; in 1874, 1238; and in 1875, 1811: about two-thirds of these being paid for by the patients themselves, generally by instalments. The business of the Provident Surgical Appliance Society is carried on at 37, Great Ormond-street.

THE NEW ASSOCIATION OF DENTAL SURGEONS.

At a meeting of the new Association of Dental Surgeons, held on Wednesday night, at the rooms of the Medical Society, Chandos-street, where permanent accommodation has been obtained, it was resolved that, inasmuch as the title of "legally-qualified Dental Surgeons" does not convey a definite idea of the qualifications necessary for the membership of the Association, it shall henceforth be termed the "Association of Surgeons practising Dental Surgery."

GLYCOGEN IN THE LIVING ORGANISM.

Dr. Abeles, of Carlsbad, in a preliminary note to the *Centralblatt Med. Wiss.* (No. 5, 1876), states that he has discovered glycogen in the normal spleen, and also in the lungs and kidneys, of dogs which he had fed three days previously with bread. As far as he knows, this substance had only been detected up to this time in the liver and striped muscles of animals post partum. In the embryo, of course, it is widely diffused.

GLASGOW UNIVERSITY COURT.

A special meeting of the Glasgow University Court was held on the 16th inst., for the purpose of electing seven Examiners in Medicine. Thirty-seven applications were submitted to the Court, from which the following selections were made:—1. Chemistry and Materia Medica, for three years, Dr. Robert Perry, Glasgow; 2. Botany and Zoology, for three years, Dr. Andrew Wilson, Edinburgh; 3. Anatomy, for four years, Dr. H. S. Wilson, Cambridge; 4. Physiology and Pathology, for five years, Dr. W. H. Allchin, London; 5. Practice of Medicine and Clinical Medicine, for five years, Dr. R. Scott Orr, Glasgow; 6. Surgery and Clinical Surgery, for five years, Dr. J. Wallace, Greenock; 7. Midwifery and Medical Jurisprudence, for four years, Dr. J. Brunton, London.

PARLIAMENTARY.—VACCINATION PROSECUTIONS—REGISTRATION OF BIRTHS AND DEATHS—RIVERS POLLUTION BILL—QUACK MEDICINES.

In the House of Commons, on Thursday, March 16,

Mr. Sclater-Booth, replying to Mr. Taylor, said, with regard to representations from two persons in Andover, stating that they had each been punished twenty times for non-compliance with the provisions of the Vaccination Acts, he thought the best answer would be to lay upon the table a copy of a letter written to boards of guardians under similar circumstances, in which the opinion of the Local Government Board was given as to the law of the case.

The Chancellor of the Exchequer, in replying to Mr. Ashbury, said he did not think it was strictly correct to say that the registrars of births and deaths in many provincial towns were charging more than 1s. for giving a certificate of the death of a member of a friendly society. Where an application was presented in a complete form, the charge was only 2s.; but in some cases he believed an additional fee was charged. He had been in correspondence for some time with his right hon. friend at the head of the Local Government Board and the Registrar-General on the subject, and he should endeavour to come to some arrangement with regard to it.

On Monday, March 20,

Mr. Sclater-Booth said he could not at present name a day for the introduction of the Rivers Pollution Bill.

Colonel Leigh asked the Secretary of State for the Home Department whether he saw any objection to obliging all owners of quack medicines to declare the ingredients of which the doses were made previously to being allowed to sell them (as was done in France), since much illness and loss of life prevail, especially among young children, from the unrestricted sale of quack medicines, the basis of which is often laudanum or some noxious or dangerous compound.

Viscount Sandon said the subject referred to had opened up some very important questions, and it was receiving every consideration, and he must ask the hon. and gallant member to allow him not to state an opinion upon it at present.

CHOLERA IN SOUTHERN INDIA.

(*From our own Correspondent.*)

I have been favoured by Dr. Henry King, the Acting Sanitary Commissioner to the Government of Madras, with a tabular statement showing the deaths from cholera in the Madras Presidency during the year 1875. The population of the Presidency was shown by the census of 1871 to be rather more than 31,250,000, and the total deaths from cholera during the year were 87,943. The earliest epidemic prevalence of the disease seems to have been in the Tanjore District, in April, when there were 65 deaths; which rose to 7184 in July, and declined to 454 in December. In the adjoining districts of Tinnivelly, Trichinopoly, and South Arcot it began in May, and from there seems to have extended to Coimbatore and Cuddapah in June, Nellore and Salem in July, and the town of Madras in August. Beginning with April, the total cholera deaths in the whole Presidency were 84; they increased to 1633 in May, 5898 in June, 14,376 in July, and thence with a pretty gradual rise to 15,578 in November, and sunk to 10,685 in December. Considering that the mortality in November had shown a steady rise, with no sign of abatement, and that the pestilence chiefly prevailed at that time in Tinnivelly and Madura, right in the line of the Prince of Wales's tour from Ceylon to Madras, it will be seen that no small amount of responsibility rested with his Royal Highness's medical advisers. Up to February 24 the daily rate of cholera deaths in the town of Madras (population 400,000) is from five to ten.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, March 7.

Changes in Medical Teaching—The Homœopathic Hospital—The late Professor Andral.

The new law on Superior Public Instruction, which passed at the "Assemblée Nationale" some time back, made us expect the creation of several medical universities; and we have been impatiently waiting to see what would come out of this new order of things. The Jesuits were expected to be the first and most powerful enemies—or, rather, competitors—of our old "Université de France." Not at all; they did their utmost to create in the Rue Vaugirard a Catholic Medical School. But notwithstanding their pecuniary resources and their too great moral influence, they completely failed; scarcely twenty students were inscribed on their lists. The wind seems to blow from another quarter. There is in the "Quartier Latin" some talk about the foundation of a Medical University, at the head of which public rumour places a certain number of well-known practitioners. The general belief is that the promoter of this idea is Dr. Fort, Free Professor of Anatomy, whose lectures are assiduously attended by more than 200 students. He is a man of great energy and activity, always engaged in the search for an improvement or a new idea, and understands perfectly well the wants of the present generation, while at the same time he clearly secs the defects of our classical university teaching. The principle on which would be founded the new University consists in considerably reducing the number of the different professorships. The accessory sciences, such as physics, chemistry, and natural philosophy, are left in the background, if not totally banished, and the students, upon entering this University, would have to pass a qualificative examination on those subjects. The whole teaching is to be grouped round two chairs—one of anatomy and one of pathology,—the former comprising the subdivisions of compared anatomy, micrography, histology, etc.; the second, pathology in general, and cliniques. Such a step towards a practical method of teaching, if put into execution, cannot but meet with great success. On your side of the Channel you can have but a faint idea of the spirit of theory which has for the last twenty years absorbed our medical teaching; and the school of clinical science in which Laennec, Andral, Bouillaud, and others have acquired such repute is daily more and more forsaken. This leads me to speak to you of some important reforms operated in our Medical University under the auspices of our new Dean, M. Vulpian. You have heard of the creation of our physiological laboratories which have been recently attached to the following hospitals: La Pitié, La Charité, l'Hôpital des Cliniques, and the Hôtel-Dieu. The Administrator of the Assistance Publique, who reigns supreme over all the hospitals of Paris, has upon this occasion been unusually generous, and has allotted to this foundation large amphitheatres perfectly provided with every necessary instrument. The teaching in each of these laboratories is placed under the direction of young professors, or, rather, *agrégés*. The histological examination of every tumour which presents a certain interest, and which has been the subject of a clinical lecture, is brought before the eyes of the student, as also physiological experiments, microscopical examinations of blood, urine, etc., whenever these examinations form part of or complete the clinical lectures.

Last week we were present at a fancy sale organised in favour of the Homœopathic Hospital, which is situated at the "Ternes," near the Arc de Triomphe. Perhaps the word Hospital is rather grand for the establishment I speak of, but, considering that the whole thing rests upon one man, we cannot expect more. That man is Dr. Léon Simon, a well-known homœopathic physician, whose practice and repute are very extensive here. His father preceded him in the homœopathic career, and had all his life expressed the wish that his son should found the Hospital I mention. The different notabilities who patronise the foundation had been convocated to attend the inauguration of a supplementary pavilion and the consecration of the chapel. The ceremony was performed by the Bishop of Sussex, of the Roman Catholic faith. The fancy sale which followed was as brilliant and as gay as one could wish, and, what is more, proved very productive. The elegant ladies who, behind their counters, sold you at exorbitant prices a flower or a glass of champagne, did not slightly contribute to the attraction of visitors, even the most profane, such as ourselves.

It is rather late to speak of the death of Professor Andral, and you must have seen in the late papers nearly every detail or peculiarity of his life and his genius. I will only say that by his death we have not only lost a man, but with him has disappeared one of the most brilliant and most active champions of the last medical generation, after which plain clinical observation has been rather neglected; and the new tendency towards theory makes us feel all the more the void left by Andral's death.

*** We have not undertaken to correct our correspondent's English; though it is not, on the whole, equal to that of the Comte de Florac, still it is good.—Ed. *Med. Times and Gaz.*

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, March 4.

Annual Meeting of the Edinburgh Royal Lunatic Asylum: Dr. Clouston's Report—Causes, Mental and Physical, of Insanity in the Poor and the Rich.

The annual general meeting of the Royal Asylum was held in the Treasurer's Chambers, on Monday, February 28. Lord Provost Falshaw presided.

From the annual report, read by the Clerk and Treasurer (Mr. D. Scott Moncrieff), the Asylum appeared to have been in a most prosperous condition during the past year. The ordinary income for the year amounted to £32,213 8s. 8d., and the expenditure to £27,580 1s. 8d., thus leaving a surplus revenue of £4633 7s. From this surplus there had to be deducted the annual instalment of £1183 14s. 7d. due to the sinking fund.

The annual report, submitted by the Physician-Superintendent, Dr. Clouston, presented many points of great interest. The number of patients admitted this year (310) had been almost the same as in 1874 (308); and Dr. Clouston in his last report pointed out that this number was 14 per cent. above the average yearly admissions in the previous ten years. There was, further, this very extraordinary coincidence: that the number of rate-supported patients sent to the Asylum from Edinburgh, Leith, and Orkney was precisely the same (214) as last year, and that the admissions of private patients were also exactly the same. "I imagine," says Dr. Clouston, "it would be difficult to point to anything else in our city that had remained so absolutely *in statu quo* for that time as its lunacy. The unsatisfactory thing about it is, that these numbers are 38 per cent. in excess of the average pauper lunacy sent to us from the same district in the ten years ending 1873. The explanation of the sudden increase in these two years, from 176 (the average of the five years previously) up to 214, does not seem to be due to the grant from the Imperial Exchequer in aid of the local rates for the support of pauper lunatics, which began in 1874. In both years nearly 50 per cent. of all the pauper cases were sent to us within a month after the commencement of their disease, against 40 per cent. at that stage in the five years previously, showing an apparent desire to send patients sooner from home. The satisfactory aspect of the matter is, that so many of the cases recovered that at the end of this year the number of patients in the Asylum remaining chargeable to our district was scarcely increased (464 against 460) from the close of 1873. Had the result been otherwise—viz., an increase in the chronic incurable insane left in the Asylum, to whom asylum treatment could do no good—the Imperial grant might have turned out to be neither an advantage to the insane nor any saving to the parochial rates."

Dr. Clouston then proceeds to analyse the causes that have produced the insanity in the 310 cases admitted during the year. "Glancing over the summary of assigned causes, it is at once seen that intemperance stands out as by far the most frequent. It alone caused 48 of the 257, or about 20 per cent., in which the cause was known; and, along with other allied excesses for which the patients had been themselves respon-

sible, it accounts for 72, or 28 per cent. of the cases. Much is properly said about the prevention of disease nowadays. Most unquestionably the sum total of the mental disease in our city might have been lessened by that amount if the laws of nature had been better obeyed. Fifty of the cases thus resulting from drinking and excesses being paupers, each costing £27 a year to the public rates, over £1300 will have been paid for one year's production of lunacy from very preventable causes; and of course this takes no account of the cost of the old incurable cases already in the Asylum from the same cause. I have no doubt that both the number of cases and the cost will seem small to some persons, and will seem large to others, who have not had their attention directed to it. I am quite sure that intemperance was the remote cause of the disease in more of the cases; but even allowing for these, we cannot put this down as accounting in any way for more than one in four of all cases of insanity. Medical statistics seem definite on this point. The forms of mental disease caused by intemperance are of two types—one being of a more transient and curable nature; the other incurable, and being accompanied by organic disease of the brain. Of the former class we had about thirty cases; the latter about twenty.

"When the number of pauper patients whose disease was caused by intemperate habits is compared with that of the private patients from the same cause, I find that there were about 3 per cent. more of the former than of the latter. A better social position, more means of rational amusement, a better education, and the stronger public opinion of their class, do not seem to have saved any larger proportion of the better classes than of the poorer. In this respect our statistics for this year are in accordance with those of former years."

Dr. Clouston then goes on to show that on the one hand insanity is often the cause, and not the consequence, of intemperance; and that when, on the other hand, the excessive use of alcohol seems to have induced the insanity, there has, in many instances, pre-existed a mental equilibrium so unstable that a very little alcohol has been sufficient to upset the sanity. This is the class of persons who, in his experience, get upset by religious revivals. "Taking all the cases in which any direct cause for the disease was assigned or known, 63 per cent. were physical causes—such as intemperance, injuries to the head, epileptic fits, starvation, or childbirth, etc.; while 37 were mental—such as grief, domestic or business anxieties, disappointments, religious excitement, or fright.

"When the causes of the insanity in our 88 private patients are compared with those of 222 paupers, the difference is most striking, and entirely bears out the general law already indicated. Of those 88 private patients, mental causes produced the disease in about as many as physical, being only 12 per cent. under them, while in the paupers they were just one-third as numerous. These facts tend strongly to show that the higher in the social scale we go, the more strongly do purely mental and moral shocks act in upsetting a healthy mental balance, and that those causes operate more powerfully on the lower classes of a town population than an agricultural. They also point to the fact that our workers in coal, iron, and the potteries expose themselves above all other people to the physical causes which produce insanity.

"Among the patients who come here in a year, there are always many with the saddest of histories, and usually a few whose doings before admission were of a very striking character. One case was that of a woman, who up to within about a twelvemonth of her admission had lived a quiet but honest and uneventful life, and had then struck out a highly sensational course for herself. By a series of the most extraordinary misrepresentations and cleverly carried out impostures, she raised large sums of money on no security whatever, and spent them as recklessly; imposed on jewellers, so that they trusted her with goods worth many hundreds of pounds; furnished grand houses, entirely at the expense of trusting upholsterers; introduced herself by sheer impudence to one great nobleman after another, and then introduced her dupes, who, on the faith of these distinguished social connexions, at once disgorged more money. To one person she was a great literary character; to another, of royal descent; to another, as having immense expectations; to another, as a stern religionist. At last all this lying, cheating, scheming, and imposture developed into marked insanity and brain disease, of which she soon died; and it was seen that all those people had been the dupes of a lunatic, whose very boldness, cunning, and mendacity had been the direct result of her insanity."

The mean age of the patients admitted during the year was forty. Of the 310, 156 were single, 115 married, and 39 widowed; 212 were cases in their first attack of the disease, and one-half of them were in weak bodily health, and ill-conditioned. Of the 245 patients who left the institution during the year, 153 had recovered, which is the largest actual number in any one year. It is about 50 per cent. on the admissions, the average rate of the public asylums of Scotland for last year having been 39 per cent. The rate of recovery among the private patients this year was considerably higher than that among the rate-supported class, being 77 per cent. on the admissions in the former, and 38 per cent. in the latter class. This is unusual, and Dr. Clouston thinks accidental; for in former years the recovery-rate was higher among the latter. The average period of residence of those who recovered was about eight months, but this was run up by a few who were for many years in the Asylum before they got rid of their malady. Of the total number 70 per cent. recovered in periods under six months of residence. "The number of patients who died in the institution during the year amounted to 9 per cent. on the average number resident, 6·3 per cent. on the total number under treatment, and 21 per cent. on the admissions. Those percentages are all below our own average during the last ten years, and, as compared with the average rate of mortality in the Scotch public asylums for the past ten years (the percentages of which were 8·4, 6·3, and 22·5 on numbers resident, total number under treatment, and admissions respectively), they are almost the same. Sixty-three per cent. of the deaths were from diseases of the brain. None of them resulted from any epidemic disease. Twenty of the sixty-five were over sixty years of age, the average age of all those who died being fifty-one." There occurred during the year no suicides, untoward accidents, or epidemic diseases among the patients, although they were more than usually exposed to such risks. For almost every part of the house had been more or less in the hands of the workmen who have been carrying out the alterations in the buildings. Dr. Clouston referred to the progress made in the building extensions, which, when completed, will place the Asylum on a level with the requirements of the times. He expressed his opinion that the medical staff was scarcely large enough. In concluding his admirable report, which contained much that we have not space for here, he said—"There are two questions in asylum management which urgently need consideration at present. The first is, How can we get good attendants on the insane; how should they be trained; and how can their services be retained for sufficiently long periods? The second is, How can we provide occupation for our better-class patients that will be of the nature of the real employment of life? This is scarcely the place to enter on a discussion of the right solution of these questions, but I believe it is quite possible to solve them both, and thereby greatly benefit the insane."

The half-yearly general meeting of the Scottish Meteorological Society was held on Thursday, March 2. The annual report having been read, the chairman (Mr. D. Milne Home) referred to the importance of some of the stations established by the Society. Some of them in this country were of extreme interest, on account of the height at which they were stationed. One of the highest was established by the Duke of Buccleuch at Leadhills, a height of 1334 feet; and it was a remarkable circumstance that, when investigating the great cold in 1860, the change was felt at Leadhills fully twenty-four hours before it was felt in the lower parts of the country—showing that the change took place first in the upper parts of the atmosphere, and came down. He wished the Society had a few more stations at a considerable height. The Highland Railway had a place at Dalnacardoch (1300 feet above the sea), and if that Company would offer to take charge of a station there, it would be of value to the Society. The United States had stations at the heights of 6000 and 14,000 feet; and in France there were some from 3780 to 9500 feet. He referred to the work done by other countries in this department, and urged the importance of increased attention being given to the subject by this country. "There was," he said, "no country which had so many interests at stake as Britain, and the Society had a duty to perform to endeavour to investigate those great laws by which the Almighty had made the globe fit for vegetable and animal life."

Dr. Arthur Mitchell, in submitting the report of the Ozone Committee, referred to the unsatisfactoriness of the methods of

the ozone observations hitherto in use. It was therefore to be looked for that the results would not possess that scientific precision which should characterise such researches. The highest amount of ozone had been observed at the two highest stations—the heights of which were fully 1000 feet,—the average being 7·94. At heights varying from 338 to 695 feet, the amount was 5·93; at lower levels, not far from the east coast, it was 5·62; and at stations a little distance from the west, 4·86. The average amount was 5·76. It appeared that the conditions most favourable to a large development of ozone were elevation above the sea, and in close proximity to the west coast, or in situations placing the stations immediately within the influence of wind from the Atlantic.

GENERAL CORRESPONDENCE.

THE COLLEGE OF SURGEONS AND ITS MIDWIFERY BOARD.

Letter from Dr. Robert Barnes.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am anxious to avoid all misunderstanding as to the reasons which led me to resign my seat at the Midwifery Board of the Royal College of Surgeons.

Every personal feeling moved me to retain that seat; but the higher claim of allegiance to my profession, coincident, as this appeared to me, with the public interest, left me no alternative.

It will put the case, in so far as it concerns me, in the clearest light if you will be good enough to print the letter which I felt it my duty to address to the Council of the College. I am, &c., Robert Barnes.

March 20.

To the President, Vice-President, and Council of the Royal College of Surgeons of England.

Gentlemen,—The duty imposed upon the Midwifery Board to examine for the College licence in midwifery "persons" who shall not be required to submit to an adequate examination in medicine and surgery has compelled me to reconsider my position as a member of that Board.

The Council calls upon the Board to aid in placing on the Medical Register "persons" possessing only fragmentary medical skill, but who will, notwithstanding, acquire a practical, if not a legal, right to practise far beyond the limits of their qualification.

Knowing as I do that obstetrics is an integral part of medicine; knowing that it cannot be rightly understood or safely practised without a fair knowledge of the other parts of medical science, and feeling deeply the injustice and danger of making women and children the subjects of inferior medical skill, I cannot reconcile it to my sense of right to assist in carrying out the College charter in the spirit expounded by counsel.

With extreme regret, but without hesitation, I resign the office of Examiner in Midwifery to your College.

I have the honour to be, Gentlemen,
Your most obedient servant,
Grosvenor-street, March 16, 1876. Robert Barnes.

DISTAL LIGATURE IN CASES OF ANEURISM.

Letter from Mr. Christopher Heath.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the leading article which you devoted last week to the treatment of aneurism by the distal ligature, you say that, "in favour of this practice [of tying the first artery on the distal side of the aneurism], all that can at present be brought forward are two cases—one of Mr. Heath's . . . and that read by Holmes." If you and your readers will kindly refer to Dr. Cockle's original paper, "On the Pathology and Treatment of Aneurismal Tumours of the Neck and Chest" (*Lancet*, April 18, 1869), you will find that there are six well-authenticated cases on record, all of which have a direct relation to the question at issue. In four of these the left carotid was tied, with the result of alleviating or curing an aortic aneurism. It was a knowledge of these cases which led me to coincide with Dr. Cockle in tying the left carotid of his patient in 1872, and the prolongation of that man's life to the present time has been the not unsatisfactory result. The details of this case will be found in vol. v. of the *Transactions of the Clinical Society*, before which Society the patient was produced in 1872, and again in 1873.

The *rationale* of the operation is no doubt still uncertain, as Dr. Cockle and myself have always acknowledged; and in his paper (prior to our case) that physician writes:—"How such ligature acts, whether by causing some diversion difficult to explain, or by producing some further modification in the membrane of the already diseased sac, one or both, the facts remain." Mr. Holmes entertains the view that in these cases of distal ligature the clot extends from the point of ligature to the sac, thus setting up coagulation in it; but this view requires further elucidation.

Mr. Holmes was by no means enthusiastic in his support of the distal ligature, either at the Royal Medical and Chirurgical Society in 1866, when I brought forward my case of distal ligature of the carotid and subclavian for supposed innominate aneurism, or at the Clinical Society, when Dr. Cockle's case (on which I operated) was read. It is therefore the more gratifying to me to find that Mr. Holmes has followed my lead in both particulars, since "imitation is the sincerest form of flattery." I am quite sure, however, that you err in attributing to Mr. Holmes any accusation of "flippancy" against myself at the recent meeting of the Clinical Society. The only published report (that of the *Lancet*) does not bear out the suggestion; and listening, as I did, attentively to what Mr. Holmes said, I feel sure that no such expression was used by him; nor can I allow for a moment that my previous remarks in any way justify your imputation. What I said was that in cases of aortic aneurism, where the disease was making progress spite of the most skilful medical treatment, I thought it right that the question of operative interference should be entertained before the case was rendered utterly hopeless by the progress of the aneurism. I am not aware that there is anything "flippant" in such an opinion, and I think many a sufferer would gladly catch at the chance of relief under such desperate circumstances, if the facts as at present ascertained were put fairly before him. I am, &c.,

Cavendish-square, March 21. Christopher Heath.

*** As we understood Mr. Holmes, the rebuke, couched in whatever terms, was intended for altogether another individual.

Butcher-Meat.—In England the yearly consumption of meat is generally understood to be one hundred pounds a head of the whole population. MacCulloch estimated it, in 1835, for London only, as amounting to ninety-six pounds a head; the country population consuming usually but half the amount of meat consumed by the inhabitants of large cities.

Report on the Metropolitan Water Companies for February last.—The water in the River Thames at Hampton, Molesey, and Sunbury (where the intakes of the West Middlesex, Grand Junction, Southwark and Vauxhall, Lambeth, and East London Companies are situated), was good during the first half, and in a dirty and turbid state during the remainder of the month of February, causing the water to be slightly stained after filtration. The highest flood state of the river was two feet six inches above the (six feet) summer level, and the lowest was five inches above the summer level. At Seething Wells, Kingston, the condition of the water in the river was good on four days, indifferent on eleven, and bad on fourteen. The rainfall for the month was 1·68 inches. From a special report of the analysis of the Chelsea Company's water, made by Dr. Letheby on the 15th of last month, it would appear that the quality of the Thames water is very satisfactory. Dr. Letheby compared the results obtained upon the present occasion with those noted on an examination of Thames water ten years ago, and he says:—"The water is of excellent quality, and very uniform composition; the only difference found in the interval of ten years is a slight increase in the proportion of carbonate and sulphate of lime, and a marked decrease in the amounts of ammonia, nitric acid, and organic matter. These slight variations are probably due to season; and they establish the fact that the water of the Thames is not undergoing deterioration, but is somewhat improving as time advances. I am very confident, therefore, that when the Companies have perfected their works of storage and filtration, the water from the Thames will be bright and colourless, and will satisfy the most fastidious in these particulars."

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, March 10.

Sir William Jenner, Bart., K.C.B., M.D., D.C.L., F.R.S. President, in the Chair.

(*Concluded from page* 324.)

Aneurism of the Arch of the Aorta.

Dr. Greenhow read notes of a case of aneurism of the arch of the aorta, with obstruction to the passage of blood through the left carotid and subclavian arteries, in which spontaneous cure of the aneurism was nearly completed, when death took place from empyema. The patient was a needlewoman, aged forty-five, married. Her father and mother had both died of phthisis. The patient had been subject to coughs and colds; and, for two years before coming under observation, had never been free from cough and shortness of breath. Three months before admission to the Middlesex Hospital, she had had rigors, followed by pain in the left side of the thorax. On admission to the hospital, her breathing was laboured; her respirations were 32; she lay constantly on the left side, and, when placed on the right side, gasped for breath, and appeared to be dying. Her pulse was 130; her temperature 100·7°. The chest appeared larger on the left than on the right side, both in front and behind; and the left side did not expand at all during inspiration, whilst the integuments of the same side were œdematous. There was general dulness over the left lung on percussion, and absence of breathing-sounds throughout the same area, except at a small space below the spine of the left scapula. The respiratory sounds were mostly normal over the right lung. The heart was pushed to the right, and its impulse could be felt all over the left lung. Its sounds were normal. No pulse could be detected in the left subclavian, brachial, or radial artery. The pupils were equal, the voice was unchanged, and there was no difficulty in swallowing. The left arm was not swollen. There was frequent cough, and much mueo-purulent sputum was raised. After a time, the left mamma became inflamed, and was incised; the patient died shortly afterwards. At the post-mortem examination, an abscess was found just beneath the left pectoralis major muscle, communicating with the pleural cavity through the third intercostal space. Three pints of pus were drawn from the left pleural sac; and the left lung lay at the back of the cavity, against the spine, bound down by firm adhesions. An aneurismal sac, adherent to the sternum and the left lung, was found at the upper part of the thorax. It sprang from the summit of the arch of the aorta, between the left subclavian and carotid arteries; measured eleven inches from right to left, and ten inches from front to back; communicated with the aorta by a very wide mouth; and was almost completely filled with laminated decolorised fibrine. The innominate artery was patent; an inch to its left was the left carotid, of which the channel was completely obliterated, the vessel itself for an inch lying in the wall of the aneurism. The left subclavian artery was distant three and three-quarter inches from the carotid; it lay partly in the aneurismal sac, and a bristle could be passed through it into the aorta. The aorta generally was atheromatous. Dr. Greenhow remarked that twice during life, when the empyema was known to exist, the chest was tapped, but that the trocar each time penetrated the left lung, and failed to draw off any fluid. At the same time, an intra-thoracic tumour was diagnosed, which was at first believed to be cancerous, but afterwards aneurismal, there being no pulsation of the left radial artery. Dr. Greenhow thought it probable that, during life, no blood had latterly passed through the narrowed left subclavian artery, and that the impediment to the circulation through this vessel and the left carotid artery had favoured the deposit of laminated clot in the aneurism, with which eventually its cavity had been nearly filled. The case was important in its bearing upon the question of the surgical treatment of such aneurisms by ligature upon the distal side of the sac. Mr. Brasdor had proposed such an operation, and Mr. Heath, in 1872, exhibited a patient whose left carotid artery he had tied for aneurism of the ascending portion and arch of the aorta, and who had been greatly benefited by the operation. Dr. Greenhow thought that the case which he had just related, and which showed spontaneous cure of the aneurism, almost completed, in connexion with occlusion of the two distal vessels nearest to the sac, afforded strong corroborative support to this plan of treatment for the cure of thoracic aneurisms.

Aneurism of the Arch of the Aorta.

Mr. Holmes also brought forward a case of aneurism of the aorta, for which the left carotid was ligatured, with relief to the symptoms, and diminution of the tumour. The patient, a woman aged twenty-one, had never had any accident; but the present disease was attributed to an attack of rheumatic fever a year ago. When admitted into St. George's Hospital, she had a very large aneurism, occupying the terminal part of the aortic arch, with an exceedingly loud bruit, and a very strong thrill over the two upper intercostal spaces. The condition of the heart was difficult to judge of, on account of the loudness of the bruit, and the pressure of the large tumour, which seemed to have displaced it downwards. No pulse could be felt in any of the arteries of the left arm. The pulse in the two carotids was natural, and in the right radial it was regular, and about 60. She suffered occasionally from hæmoptysis, and was liable to faint at the least exertion. The treatment by complete rest and restricted diet (on Mr. Jolliffe Tufnell's plan) was carried out for several months, and with much benefit; and she improved so much after several months of this treatment, that in August, 1875, she was sent to the Convalescent Hospital at Wimbledon, where she was allowed to get up a little and to take ordinary diet; but she returned to St. George's Hospital in October, with the pulsation and bruit somewhat increased. She was again put to bed; but as the aneurism appeared distinctly advancing up the left side of the neck, and there was considerable bronchitis, it was thought advisable to tie the left common carotid artery. It should be mentioned that in the interval since her first admission the condition of the arteries of the left arm had varied much. Sometimes no pulse whatever could be felt; more commonly, the pulse could be felt, though not very plainly, in the brachial artery, and more easily in the ulnar, while in the radial it was only occasionally perceptible. The operation (on October 21) was followed by very great, but not immediate, benefit. It was not till the second day that any marked change was perceived, when the area and strength of the thrill began obviously to diminish, and continued to do so for a month; the first intercostal space, which had been bulged out by the tumour, becoming concave; and the symptoms of pressure on the air-passages very much relieved. In this state she still continued. There was now (March 10, 1876) a very loud bruit, but she was well enough to get up a little during the day, and had evidently derived very great benefit from the operation. In remarking on this case, Mr. Holmes observed that it was an incomplete one, and was only produced as an interesting pendant to that of Dr. Headlam Greenhow. In the latter case, the left subclavian was obliterated; in the present there was some obstruction, the nature of which was rather hard to determine. It could not have been the result of pressure on the trunk-artery, seeing that the brachial was pulsating while the radial could not be felt, nor the result of obstruction of the individual vessels by embolic clots; at least, such obstruction could not be complete, for the pulse was felt at one time and not at another. But, on the whole, it testified to some obstruction to the growth of the tumour in the direction of the left subclavian, and encouraged the attempt to stop the growth of the aneurism up the neck and towards the trachea, by tying the left carotid; and the result had certainly, up to the present time, justified the operation. Mr. Holmes was inclined to attribute the benefit produced by the distal ligature in aneurism to the cessation of the circulation through that part of the sac with which the tied artery was in direct continuity. If this were so, the indications for the ligature of the carotid (left or right) in aortic aneurism, and of the right carotid in innominate aneurism, must be the growth of the tumour up the neck, and the advancing symptoms of pressure on the trachea: and such were the indications relied on in the present instance. If this view were correct, it would also follow that the ligature of the third part of the subclavian held out no such prospect of benefit, since the whole circulation must still go on through the branches of the first part of the subclavian; and it might even be apprehended that the rapid increase which must take place in the circulation through those branches might possibly be accompanied by an increase in the tension of the sac.

Dr. Powell thought the great difficulty was to know when to operate. He thought rest had better be tried first. He had

a patient now in Brompton on whom he had long tried rest—at first with marked advantage: the pulse diminished, and the pain decreased; but after a time it seemed as if he went back, and it was a question whether an operation should be tried; but the nature of the man's constitution decided them against that. Since that time he has been allowed to go about a little, and has decidedly improved.

The President remarked that he had seen a case of aneurism in a young man, and could find on inquiry no history of injury; but on going back after the young man's death, a history was made out of a severe fall. Aneurism was rare at such an early age as in Mr. Holmes's case.

Mr. Holmes had failed to elicit any such history.

Dr. Burney Yeo inquired how paracentesis was done in Dr. Greenhow's case. Abroad it was generally done in front, here more usually behind.

Dr. Greenhow said that one opening was made at the posterior border of the axillary space, the other a little in front of this. He regretted it was not done more in front. In reply to Dr. Powell, he also stated that there was no history of rheumatism in his case.

Mr. Christopher Heath thought these cases proved pretty conclusively that such operations resulted in marked benefit. In a case operated on by him, where there was disease of the aorta, and not of the innominate as had been supposed, the subclavian and carotid were tied. The patient he had operated on in 1872 was still well. The question was, which artery to tie. He thought the first beyond the aneurism, but that was difficult to determine. In one case he tied the wrong carotid, and the patient shortly died of anæmia of the brain. The circulation was already disturbed, and tying the wrong vessel caused death. He had been disappointed in the use of the sphygmograph in such cases. It was difficult to say when to tie, but when the disease was advancing and some interference required, it was better that the surgeon should have a chance, than be called in when it was too late.

Mr. Maunder asked whether Mr. Holmes had tried rest twice; or whether compression of the carotid had been tried, to ascertain whether this would have any effect on the pulsation of the aneurism. In Dr. Powell's case, rest had been rigidly carried out, and had done harm.

Mr. Mahomed had never seen a case where the sphygmograph had not thrown some light on the existence and nature of an aneurism, and cited three cases as illustrations.

In reply to Dr. Cayley, Mr. Holmes said he could not remember the effect of his operation in retarding the pulse.

Mr. T. Smith suggested that it should be borne in mind that after an operation there was rest, as well as the pure results of the operation.

Mr. Callender said that in the case of the child operated on by him, death followed in twelve months from aneurism of the aorta. Some cases under Dr. Andrews had been very successful; one also did well under his care.

The President though that in Dr. Powell's case there had been distinct improvement under the influence of rest and diet. This was also Dr. Powell's view.

Mr. Holmes, in reply to Mr. Maunder, said his case was an example of the great good which could be done by ligature and the extension of the clot into the aneurismal sac. Hence he believed that ligature of the third part of the subclavian was worse than useless. Such matters and considerations were really needful of profound care.

Mr. Heath thought this rule good, if true; but in Dr. Cockle's case, in which he had operated, the aneurism was on the opposite side.

The President asked if the fluid came out of the chest in Dr. Greenhow's case?

Dr. Greenhow replied that the trocar went into the lung. He had tried rest, but the patients would not submit to it, and went out. Still, it undoubtedly did good.

PATHOLOGICAL SOCIETY.

Tuesday, March 21.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Adjourned Discussion on Syphilis.

Mr. Thomas Smith said he regretted the absence of Mr. Hutchinson from the present meeting, because he had hoped to persuade him to come to a better mind on at least one point. When Mr. Hutchinson said that syphilis did not always end with its apparent death at the expiration of the secondary stage, he quite agreed with him; but when he proceeded to say that tertiary symptoms appeared to prove by various characters that the blood was not concerned, then he (Mr. Smith) would have disputed the statement, if it had not been subsequently qualified. He would have pointed out that secondary symptoms were not very symmetrical, and tertiary not very asymmetrical. But Dr. Moxon had already done so, and Mr. Hutchinson had acknowledged that the difference in the two stages was "merely a question of abundance." Hence the idea of the non-affection of the blood in the tertiary stage could not be supported. Again, as to the curability in the tertiary stage, he allowed that some cases were curable locally, but many were not; the remedy must be in the circulating blood. Next, he came to a point on which he wished to take his stand. He believed syphilis was a blood disease *almost* to the end. He took his stand on the fact that to the end the parent might transmit the disease. Mr. Hutchinson had said that the risk of contagion appeared to cease long before that of hereditary transmission. Now, he (Mr. Smith) could not allow that a man without constitutional syphilis—*i.e.*, syphilis as a blood disease in the ordinary sense—could transmit the disease to his offspring. Mr. Hutchinson might raise the objection that there were other diseases—as gout—which might be transmitted by a father to his son without ever having affected the former. But this did not apply in the case of syphilis. As Sir William Jenner had said, the sperm and germ gave a potentiality of development in one direction. It was so in gout; many years were required to develope the disease—perhaps more than a lifetime. The case was quite the reverse in syphilis. In its transmission there was direct proof of a continuity of disease from the first contact of the semen with the ovum—not to be seen in a single case, but by studying the general history of the disease. The result was a deadly disease; a blood disease—it blighted the ovum, poisoned the fœtus and the mother. Did this ever occur in gout? Did a woman ever become gouty by bearing a gouty child? Did one ever hear of syphilis missing a generation, like gout? Evidently the same explanation would not apply in the two diseases. But if a mother could be poisoned by the child in utero in syphilis, and not in gout, must it not be through the blood in the placenta? Surely, therefore, in all reason, syphilis was a blood disease. One might say it was in the tissues: it was an all-pervading disease; and blood and lymph were the only all-pervading fluids. Syphilis was not in the lymph; therefore it must be in the blood. Mr. Smith said that he trusted Mr. Hutchinson would not misunderstand him. He believed most that had been said in the opening address,—that syphilis declined in severity, with age, to a vanishing point; and that many symptoms might outlast the blood disease. But he would not admit that "the risk of contagion ceased long before the risk of hereditary transmission." Mr. Hutchinson had asked, in the last place, whether there were "any facts that favoured the belief that syphilis continued to be a blood disease after the cessation of all tendency to produce symmetrical symptoms?" Mr. Smith said he believed there were—and one was the fact that the children of such a parent manifested the disease.

Sir William Gull said that of late years syphilis had become greatly more interesting to physicians, after having been long consigned to the tender mercies of surgeons. It was certainly one of the most interesting of subjects. There was the origin of the poison, which was genital probably, in connexion with the genital fluids. If it were so, it might be expected to be a strangely pervading one—not limited by time, and transmissible. It had long been a favourite speculation to place syphilis among the fevers. Dr. Robert Wilson did so. Yet still its poison was quite peculiar, and that in this respect: that whereas variola in father or mother will not influence the children, nor typhus, typhoid, nor measles, nor any so-called fever, syphilis was not limited in time. Mr. Hutchinson had said that if syphilis were left alone it might be limited in time. He (Sir William) had seen such cases. Where the other divinities, Bacchus and Mercury, were not present to interfere with its course, Nature might stamp it out. But generally it was unlimited. A father might beget a child apparently healthy; yet another child vaccinated from it got pure syphilis. This was never seen in fevers. And if syphilis was a fever, it was one without pyrexia. Was it a blood disease? He would not take up this vexed question. Mr. Smith had just used the term in two different senses—

general and particular. As for himself, he thought that syphilis was a flesh-and-blood fever. There was no tissue in which it did not exist. A healthy child might not get it by inoculation unless blood were mixed. As regards tertiary syphilis, where the physician was more familiar with it, he agreed with Mr. Smith that it was a constitutional disease—syphilitic once, syphilitic ever; though a man might wear it down. A syphilitic man might give no evidence of the disease to the most experienced eye. Dr. Wilks had shown this. Sir William remembered a case of a patient whose nutrition was extremely faulty: he had lost two and a half stones, and become generally, not locally, paralytic. It was known that he had had syphilis. In this patient Dr. Wilks failed to see traces of syphilis, yet anti-syphilitic remedies quite restored him. The effects of syphilis might continue thus through the whole of life: it could be traced in the hair, complexion, and smell of the sweat. Thus, in a patient who was fading from what was called "diffused tubercle," Sir William had detected the peculiar odour of the sweat, had smelt syphilis about him; and the administration of proper remedies was followed by a speedy recovery. Such a syphilitic taint might remain with no visible phenomena. Sir William concluded by saying that he could not sit down without thanking Mr. Hutchinson and the others who had spoken. It was an enormous advance to recoguise that there was but one poison, and that the three "stages" was an artificial division. It was now known that the secondary disease was as infectious as the primary, and the tertiary but a diminished condition of the secondary, as was proved by the children born of such parents.

Mr. Simon said that, generally, he would venture this criticism on the opening address,—that it called upon the Society to say too much "yes" or "no" to questions that were to be answered by "more" or "less." With regard to the proposition of Mr. Hutchinson, that syphilis ceased to be a blood disease as it ceased to produce symmetrical symptoms, he believed with Sir William Gull that syphilis was a flesh-and-blood disease. He did not know what a blood disease was. Of course at one period of its history syphilis was very abundant in the blood: at the time when every fluid of the body was infective, in man, woman, or child. But no abrupt line could be drawn between this and the condition in tertiary syphilis. The quantity and power of the poison gradually diminished. The duration was of course indefinite, yet there came a time when it was a *chance* whether a particular secretion would contain contagium. At one time the offspring would certainly be syphilitic; thereafter the probability diminished. Disease might alternate with syphilitic children; or the chance of disease of some particular system in the body might diminish. Again, as to gummata;—Mr. Hutchinson seemed to draw too hard-and-fast lines here: he spoke of gummata as phenomena of parts that had become affected in the secondary stage. Now, he himself did not understand an active sequela; he understood a passive sequela, but not an active one. Perhaps in syphilis there was something special and peculiar. He did not differ from Mr. Hutchinson's positions, if they were slightly modified; it was true that in proportion as secondary syphilis ceased to be an infectious disease the symptoms were likely to be unevenly distributed on the two sides of the body. But this was not important. And as one reached the period of gummata, and as the tumour-producing process came to be exhibited, one had evidence of a weakening of the poison, so that it was not likely to affect the offspring. Yet it was not safe to trust to this as regards either power of transmission or infection of the female. Next concerning a matter just raised by Mr. Smith—the heredity of syphilis and gout. The two diseases were not comparable. The heredity of gout was like the heredity of a Roman nose—that of a family likeness. The character of the chemical tissue-changes that might prevail in the body passed, like the type of features, in this way from father to son. In syphilis, on the other hand, the contagium, which was probably a growing and multiplying substance, passed to the ovum and modified its development. Regarding the power of syphilis in passing into or modifying other diseases, as scrofula, Mr. Simon said that it was edifying to note that these diseases were all indefinite. Scrofula had not yet been defined, unless it were synonymous with tubercular disease. He had no knowledge of syphilis being capable of producing or of modifying other diseases. He had to demur on that account to a remark of Sir William Gull's, as to the variety of syphilis; the difference, in effect, was one of degree only, not of kind. Yet all cases were not alike: scarlatina, small-pox, and measles might show themselves as differently as possible in different families; he said "families," because such differences were to be referred to hereditary causes. And so it might be among a hundred syphilitics; but these were mainly differences of degree, and not such as admitted of being described as nosological varieties. As to the question of gummata being the deferred manifestation of change of tissue in the secondary stage, it seemed to him more probable that gummata resulted from the weak action of a contagium that had been present in the part from the first, but had not changed the part itself—as *Dauersporen*, perhaps. The contagium might lie in the tissues; and then, at a later period, produce its result. The irritant—which in its stronger dose would produce inflammation—in this strength produced hypertrophy. But all this had to be examined by facts. As many cases of secondary syphilis as possible should be collected. These were rare; but congenital disease in children afforded innumerable opportunities. On the ulterior effects of syphilis important information might be gathered in practice, especially by correct family histories. With a syphilitic grandfather, it might be ascertained whether particular diseases were more frequently produced in the offspring. Whether syphilis itself might not appear in more than the next generation was a question. He had himself seen one case where this seemed to have occurred. A lady's father died of tertiary syphilis, and her first child was probably syphilitic, without any other possible source of infection.

Sir William Gull said that he wished to make an explanation on a point referred to by Mr. Simon. He had said in his previous remarks that he thought there had been a great gain in the conclusion that there was but one poison of syphilis, which caused a variety of effects, according to the person. It used to be thought that when the disease was pustular, papular, etc., this variety was due to variety of poison. We could now say that it was due to difference of person.

Mr. John Wood said that in these discussions members could compare opinions, and he had himself learned much. First, he had recognised the survival among them of the old fluidist and solidist pathologies. He regretted that this controversy had been allowed to come in: "blood disease" was a most unfortunate name; Sir William Gull's term was very happy. This old idea had had another effect. There were still persons who believed that there was more than one disease in syphilis. He had himself come to believe that its form was the resultant of the virulence of the poison and the resistance of the tissues. In the primary disease it was so, and hard or soft chancre was the result; and the same applied in the secondary stage. The same was seen in wounds, when fibrinous exudation or suppuration resulted, as the case might be. So in syphilis, there occurred a dry rash, or an eruption ending in fluid discharge. Passing to another point—the relation of tertiary disease to sequelæ—he said he thought that no line could be drawn between the stages. He believed that Mr. Hutchinson had made a mistake there, trying to fetter nature. He had seemed to agree with Dr. Wilks in saying that all tertiary lesions were laid down at the time of secondaries. If this were so, then Mr. Hutchinson laid too much stress on symmetry in the secondary stage, and asymmetry in the tertiary. Why should there be a difference if both were laid down together? But he thought that too much stress had been laid upon the importance of secondary disease. It was manifest that, if the sequelæ were but growths from such foundations, it should be acknowledged that a patient in that stage might not communicate the disease. But this could not be. Respecting the analogy to fevers,—no poison could be transmitted to the second generation. There was one other point, and an important one: Was it true that races of men were becoming syphilised? Was the disease getting milder? Why did it take a severe form among Africans? It could not be from mercury. If syphilis did really have this action upon races, it would evidently bear a relation to gout and rheumatism, the latter of which it closely resembled otherwise. This interesting point appeared to have been overlooked by other speakers.

Surgeon-Major Robinson said that he wished to express the opinion and experience of many medical officers on this subject. Most army surgeons believed in the unity of syphilis; the effect of the poison depended on the constitution and other circumstances. Thus, he had known phagedæna break out among the Guards with great virulence, the constitution succumbing. And he had seen in Limerick a form of syphilis of

which many of the patients died. As regards hereditary syphilis, he had been led, in listening to the discussion, to think that there must be great differences in civil and military life, the hereditary form being apparently more common in civil life. In the army the previous health was known, and surveillance was more complete. Among soldiers' children syphilis was uncommon; and sequelæ were also rarer. Men seldom passed through the service without having syphilis. Their offspring could be traced, and after thirty years' experience Surgeon-Major Robinson had to say that hereditary syphilis was rare among them. The reason probably was that they got the men at an early period, and treated them carefully; and he held that syphilis, in its hereditary relation, could be materially reduced by mercury. The relation of syphilis to phthisis was a subject on which an army surgeon was bound to speak. Syphilis was common among the Household Guards, and lately he had found that of eight men suffering from phthisis, four had recently had syphilis. The association was remarkably close, but there were other factors, such as drink, exposure, and the use of uniform. Yet it was impossible to overlook the connexion; he would pronounce a verdict of "Not proven."

Mr. Vining said that he should like to put certain questions to Mr. Hutchinson. First with respect to the dualism or not of syphilis: on the subject of the distinction of the hard and soft chancres. He had seemed to place the local contagious sore in the category of local inflammatory sores. But a soft chancre ran a definite course, and destroyed the tissues—perhaps inoculated; and an enlarged gland might contain inoculating material. Surely this was more than inflammatory. He hoped Mr. Hutchinson would give his opinion on this point.

Dr. Farquharson said that dualism need never have been considered to have been alive at all. There was no reason why the soft sore should not be considered as a pathological unit, carrying on its effect in a local form. But if it were not allowed that two forms of sore existed, there would be much difficulty in prognosis. One used to tell one's patients that they were safe from the danger of constitutional symptoms if the sore were soft; now it appeared as if one could not be able to say so. So much in memory of the dead. Respecting the analogy between syphilis and the exanthemata, the irregularities caused much difficulty. Thus, there might be no secondaries at all; and the form might vary greatly. Mr. Hutchinson had said that mercury disarranged the evolution of syphilis, but his (Dr. Farquharson's) experience was that mercury had the effect of rendering it more regular. As for the relation of syphilis to phthisis, he had himself published some cases in which hæmoptysis was associated with syphilis, and the disease ran on to phthisis. This seemed to support Mr. Hutchinson's theory of residues.

Dr. Greenfield said that his remarks would have reference chiefly to the histology of syphilis. In examining new growths of syphilis and gummata he found that the appearance was the same at all periods. At first it was a small round-celled tissue indistinguishable from adenoid, and was found especially in the perivascular canals, along which it extended. The peculiarity was that in the course of development both the outer wall and the lining endothelium grew, so that the vessel got blocked up: thrombosis was followed by degeneration of the growth. At the same time a very vascular capsule was formed by proliferation of the tissue and development of new vessels. This had been described by Heubner in the cerebral vessels, and he (Dr. Greenfield) had seen it in the kidney. Now, it appeared to him that all this had a bearing on the general pathology of the disease. If one found uniformity of process at first and at last, consisting in a peculiar mode of origin, growth, and degeneration, then one ought not to speak separately of gumma, but of all as syphilitic new growth. Mr. Hutchinson had said that this might occur in the secondary stage: microscopic examination alone could settle this. Large tumours could not be formed at first, but if the line of growth were the same throughout, then tertiary gummata would be due to the continued action of the same cause. In one particular case of secondary syphilitic disease, of but a few months' duration, minute nodules were found by him, post-mortem, on the dura mater. Such growths in the early stage seemed to have an important bearing on the general pathology. Again, it appeared to him that the analogy of syphilis to the specific fevers had been rather forced; the facts in its favour were inoculation, local development, an incubation period, diffusion into the blood, and then an exanthematous fever. Now, these seemed to be but symptoms due to diffusion into the blood of the poison. From this point the analogy ceased to hold. Henceforward syphilis began; its growths now took a certain order or type; its growths now appeared, producing tertiary symptoms. He would ask Mr. Hutchinson whether, in all cases of hereditary syphilis, secondary symptoms had been observed in early life. Since the syphilis in the parent had been attended with low connective-tissue growth, might there not be a heredity of a low form of similar growth—an invasion, in the child, of the cornea, teeth, etc.? There was an analogy in the transmission of cretinism. And he had seen a case of hyperostosis (a disease hitherto believed to be peculiar to the hereditary form of syphilis) in a man who had been syphilitic for twenty-five years, as if a long period of time were required for the development of the condition, whether in the individual or in two individuals of successive generations.

Dr. Gibbon said that evidence seemed sufficient that syphilis and phthisis were associated. He could not believe that syphilis was an exanthem. He believed that in syphilis there was a deficiency of oxygen in the system from disease of the blood, and he would recommend peroxide of hydrogen.

New Members.

The following gentlemen were elected members of the Society in the course of the evening:—Dr. Gwyther and Mr. Charles Henry Johnson.

NEW INVENTIONS AND IMPROVEMENTS.

OZONE PAPER AND OZONE CIGARETTES.

Mr. R. Huggins, chemist, 235, Strand, has brought out what he calls "Ozone Paper," for the "relief and subsequent cure of asthma, bronchitis, and bronchitic asthma." It consists of square pieces, which being folded at a sharp angle, and lighted at the angle, smoulder quickly down, a rather dense fume arising, and gradually filling the room. After the fumes have been inhaled for a few minutes, difficulty of respiration ceases, and the patient falls asleep. The paper is, we imagine, the old nitrate of potash blotting-paper, treated in some peculiar way, and may therefore be regarded as an improvement rather than as a new invention; but, at any rate, we can vouch for its having been found of great value by an asthmatic of long and large experience in "remedies" for his painful malady.

The Cigarettes are made of porous paper, saturated with the same chemical solution as the Ozone Paper.

CLINICAL MEASURE.

Mr. Hawksley, 300, Oxford-street, has sent us a convenient little waistcoat-pocket Clinical Measure. It is three inches in length, is very clearly divided according to English and the metrical scales, and is intended to enable medical men to express minute measurements according to these recognised standards; and especially to familiarise them with the centimetre scale of measurement. On the face of it is also given the most important portion of the thermometric scale, Fahrenheit and centigrade placed side by side. We have no doubt that it will be found very useful and handy.

THE UNIVERSAL DISINFECTING POWDER.

As is well known to most, disinfectants belong to two groups—viz., such as attack and destroy bodies already in a state of decomposition, or about to pass into such a state; and those which hinder bodies from becoming decomposed. To the former group belong such substances as chloride of lime and permanganate of potash; of the latter, carbolic acid is the best exemplar. Moreover, as some of the most noxious and disagreeable products of decomposing matter are either gaseous or suspended in the air, a proper disinfectant should be capable of attacking aëriform bodies—*i.e.*, should be itself in the gaseous state, in part at least. There is only one element which combines all these properties, namely, chlorine. This has the power of destroying, or combining with, nearly all putrescent compounds; whilst the chlorides themselves have notable powers of arresting decomposition. Even the simplest and best known of these—common salt—is useful in this way. In no form have we seen these properties so well utilised as in the Universal Disinfecting Powder, which unites the double properties of containing preserving chlorides, and of giving off

when wetted, nascent chlorine; thus exercising a twofold power of attacking putrescent and putrescible matter. The substance itself somewhat resembles bay-salt, and gives off a weak odour, far from unpleasant, of chlorine gas. It may be used either in the solid form or dissolved in water, and, being composed of alkaline or earthy chlorides, when so dissolved does not possess the acrid properties of a simple solution of chloride of zinc, and consequently is not poisonous like the well-known Burnett's fluid. In either form, after due trial we can amply recommend this new disinfectant as likely to be a boon to the public—efficient, yet safe. Might we suggest, however, to the proprietors the usefulness of that system, now adopted for so many things, of having the lid perforated, should this be compatible with their object in furnishing an efficient disinfectant?

OBITUARY.

EDMUND ALEXANDER PARKES, M.D., F.R.S.,

PROFESSOR OF HYGIENE AT THE ARMY MEDICAL SCHOOL, NETLEY.

A VERY brief notice of Dr. Parkes' death appeared in the last number of this journal; and in now endeavouring to give a sketch of the man and his work, we know that it must be very imperfect. We have some idea of the influence he exercised on the development of our professional knowledge by his own and by his pupils' work on medical tuition, and on the improvement in the hygienic condition of the army, but it is impossible to give more than a faint indication of the great beauty of his character, and of the rare combination of fine qualities in his mind, which could not be described, but only felt by those who enjoyed his unselfish friendship.

Edmund Alexander Parkes was born on March 29, 1819, in the village of Bloxam, Oxfordshire. His father, William Parkes, Esq., of the Marble-yard, Warwick, was a man of superior mind, remarkable alike for industry, firmness, and nobility of character; and his mother, Frances Byerly, was authoress of several very useful works, well known in her time, amongst others of "Domestic Duties," a book which passed through many editions. To these circumstances may be due much of Dr. Parkes' literary inclination and talent, and of his thoughtful character. At all events, we know that he had the advantage of a careful education in his early years, and also that he was a very happy, joyous boy, full of merriment, though always remarkably gentle. He obtained his medical education at University College, London, where he derived great benefit from the teaching, as well as the friendship, of his uncle Dr. Anthony Todd Thomson, and from the lectures of Professor Sharpey. In 1840 Dr. Parkes passed the College of Surgeons, in 1841 the M.B. examination of the University of London; and early in 1842 he proceeded, as Assistant-Surgeon to the 84th Regiment, to India and Burmah. He returned home, however, and retired from the service in 1845, soon afterwards took the M.D. degree, and published his first two important works, "Remarks on the Dysentery and Hepatitis of India" (1846) and "On Asiatic and Algide Cholera" (1847), both of which are the result of personal observation and study during his stay in India, and contain advanced views on the pathology of these diseases. The latter of the two works was chiefly written in India, where he had witnessed two violent epidemics of cholera; and the former showed that he had already commenced those researches on the excretions that afterwards helped to make his name famous. A little later he edited and completed Dr. A. T. Thomson's work on Diseases of the Skin (1850). About the same time he commenced his labours as Physician and teacher at University College Hospital and at University College, where he exercised invaluable influence on the medical students by his teaching at the bedside and by his example, making everyone think and examine for himself, and thus awakening in him an interest in his profession, and the desire to know more on the subject before him. One of his pupils, now himself a distinguished physician and teacher of medicine, always says that he owes much of his love for work and knowledge to Dr. Parkes; that he never went round the ward with him without feeling an intense wish to become better, and at the same time feeling that he could become so. We remember ourselves how we enjoyed listening to him when he delivered an introductory lecture at University College on "Self-Training by the Medical Student"—how we were struck by the intense attention of the students to his earnest words, pointing out that the pains of our profession are constant, the pleasures few, the sacrifices great, the recompenses scanty. We know how lasting on several of his hearers was the admonition, that everyone must labour to come out of manifold and sometimes dangerous influences under which the mind of the student is formed, "loving truth and honour, and actuated by high and noble motives in dealing with others." In the performance of his duties as Professor of Clinical Medicine at University College and Physician to the University College Hospital he endeared himself not only to the students, but in an equal and perhaps even a greater degree to his colleagues, who remained his affectionate and devoted friends to the hour of his death.

In 1852 Dr. Parkes succeeded Dr. Carpenter as editor of the *British and Foreign Medico-Chirurgical Review*, which periodical he conducted in an incomparable manner, aided by his very great knowledge of English and foreign (especially German) contemporary medical literature, until, in 1855, during the Crimean War, he was selected to organise and conduct the Renkioi Hospital on the Bosphorus. The eminent services which he rendered in this capacity attracted the attention and appreciation of Government, and thus led to a new sphere of usefulness; for one of the results of the Royal Commission under the guidance of Sidney Herbert was the formation of the Army Medical School. Lord Herbert placed great reliance on the judgment of Dr. Parkes in all matters of military hygiene, and all that belonged to the health of troops under different conditions. Hence, it was natural that Dr. Parkes should have been asked to take the chair of Military Hygiene, after he had reluctantly resigned the clinical work he had done so well in the University College Medical School, as his health and strength were not equal to the wear and tear of professional life in London. As Professor at the Military Medical School, he was again the intimate friend of all his eminent colleagues, who regarded him as the head and soul of the School; and as to his influence on his pupils, we have it from one of his colleagues that his "fluency and grace of language as a lecturer, together with his earnestness and kindliness of manner, won the lively attention of his listeners, while the clear and simple style in which he described and explained the practical hygienic investigations conducted in the laboratory excited an interest in them which was attended with the most valuable results." To him and to Professors Longmore, Maclean, and Aitken it is due that the English army need not be ashamed of its younger medical officers; some of whom, like Drs. Lewis and Cunningham, are distinguishing themselves by original researches in the most obscure fields of pathology. The manner in which Dr. Parkes arranged his laboratory and performed his tutorial work at Netley excited also the admiration and emulation of the numerous distinguished military medical officers from abroad, who invariably came away from Netley equally fascinated by the personal and professional qualities of Dr. Parkes. His great work on "Practical Hygiene," which has already reached its fourth edition, is regarded as a standard work all over the world, and is especially appreciated in Germany and France. His annual contributions to the Army Medical Reports are considered the best papers on the progress of sanitary science; his essays on "The Effects of Alcohol," on "The Elimination of Nitrogen by the Kidneys and Intestines during Rest and Exercise," and on "A Diet without Nitrogen," his various papers read to the Royal Society, and his many contributions to this journal and other periodicals, are all of great scientific and practical value. One of his best known works, "The Composition of the Urine in Health and Disease, and under the Action of Remedies," which appeared in 1860, was a most valuable contribution to our knowledge of the subject, and is still of great use, bringing together all that seemed acquired at that date, and making known in this country the results of the elaborate investigations of Continental chemists. The delicate duties of Examiner in Medicine for her Majesty's British and Indian Services were performed by Dr. Parkes with that kindness and earnestness which endeared him even to those whom he could not pass. As a member of military commissions, and as the trusted adviser of the Government in all matters of clothing, of dietary, of ventilation, and water-supply, he rendered the greatest services to the country, and, according to the expression of a high military officer with whom he was associated in this work, he did more for the British army and for the diminution of the military mortality than any other man.

With all this, Dr. Parkes had always time for every good work, whether for an individual friend, for a deserving young professional man, or for a medical society. We need only

remind our readers of the Address in Medicine at the meeting of the British Medical Association in London—an address which excited the admiration of all English and foreign listeners by the rare display of the orator's practical and scientific knowledge, and by the stimulating enthusiasm which pervaded every sentence. No one present on that occasion will easily forget the animation then lighting up those delicate features, and giving expression to that weak but manly voice. We must mention one more important subject which greatly occupied Dr. Parkes' mind during many years of his life, namely, that of medical education. Long before he was the constantly active member of the General Medical Council, the improvement in medical tuition was one of the aims of his life. Few, perhaps, know his "Scheme of Medical Tuition" (1868), dedicated to Sir George Burrows, and yet this paper is replete with wise counsels regarding the arrangement of medical studies. He, justly, placed great value on the practical study of chemistry and physiology in the laboratory; on the teaching of the methods of physical examination before the commencement of the real clinical work; on the necessity for engaging the attention of the student in the wards by making him examine the patient, and report on the case; on the utilisation of the out-patient department for teaching purposes, by making senior students attend patients under the guidance of the physicians and surgeons.

Long though the list of work is which we have sketched, we have not nearly exhausted it; and that unseen and untold part which consists in the stimulating and life-imparting zeal which he brought to every work, can only be known by those who worked with him and understood him; but it is a pleasing duty to add that this modest, self-denying man was understood and esteemed by most of those with whom circumstances brought him in contact. It is no secret that, at a comparatively early period of Dr. Parkes' career, Sir James Clark recognised in him the great qualities of the clinical physician, combined with the sterling character of the man, and proposed him as his assistant in his duties towards her Majesty, and that it was only Dr. Parkes' already then imperfect health which prevented his entering on those duties. It is, however, perhaps less known, but ought to be known, as an encouragement to other self-denying workers, that his eminent services to the army, the profession, and the nation were thoroughly recognised in the highest quarters, in spite of the retiring way in which they were perormed. We have it on the best authority that distiuctions, justly appreciated as among the highest rewards of honest work, were offered to Dr. Parkes, and even urged upon him, but declined because he did not think that he had deserved greater acknowledgment than some of his fellow-workers had received. It was part of his noble character that he could not see that he had done more than others, whose labours he always held in higher regard than his own. Respecting his own work, he seemed never to know what he had accomplished, but to feel most keenly what still remained to be done; and his zeal in this respect was so great that he did not recognise the limits of his strength, and constantly overstepped them. While he often admonished his friends not to work beyond their power, and to regard their bodily health as their first charge, and as the necessary condition for the performance of their professional duties, practical as well as scientific, he always with gentle persuasion turned off their remarks with regard to himself, and endeavoured to make them believe that his health and strength were much better than they thought, and that he took a sufficient amount of recreation, and food, and sleep. It is sad to think that this error—for as such we must designate this his only fault, resulting from his noble, self-forgetting nature—has deprived us of his presence, and of his living encouraging influence towards further improvement, ere he had completed his fifty-seventh year. Here we may mention that Dr. Parkes married, in 1851, Miss Mary Jane Chattock, a lady of most cultivated mind, whose gentle, sympathetic nature made her share with him, at home as well as in the Crimea, as far as it belongs to the sphere of woman, all his work, until her always delicate constitution gave way. By those who knew Dr. Parkes' tender affection for her it may be easily conceived that her long and severe suffering, and at last her death in 1873, were keenly felt by him, and that his own constitution was seriously impaired by this occurrence. He did not, however, allow his grief to interfere with his usefulness; on the contrary, he worked on with almost morbid energy, and, in addition to his increasing public duties, he occupied himself with the preliminary work for intended important researches on respiration, and especially with the construction of a less complicated and expensive apparatus than Pettenkŏfer's is for the collection of the products of respiration. In the autumn and winter of 1874 to 1875 he was often for hours engaged in a rather cold room with this subject, and possibly the deterioration of his health, then manifesting itself by rheumatism and cough, was due to this combination of circumstances. In the summer of 1875 he suffered severely from sciatica, from which he had only imperfectly recovered when he too soon resumed his work at Netley in the autumn session of last year; and he finally sank from general tuberculosis. Early in winter the last and fatal illness commenced, during which he still continued his correspondence, and wrote a popular work on Hygiene, which will be published in a couple of months, and may be regarded as a legacy to the general public. His kindly, patient, self-denying manner he preserved to the last; and when he felt his approaching end, about ten days before his death, he took affectionate leave of those of his friends who had the privilege of seeiug him, while he sent farewell messages through them to some others who were less fortunate.

Throughout his long illness he was most carefully and affectionately attended by his friend and neighbour Dr. Osborn, of Bitterne, who was constantly assisted by Dr. de Chaumont and Dr. Parkes' other colleagues at Netley, whose esteem and love for him were equally great. He had also the pleasure of repeated visits from his oldest London friends, Sir William Jenner and Dr. Russell Reynolds. He died on Wednesday, March 15, and at his own request was interred at Solihull, near Birmingham, where his wife had been buried.

Of Dr. Parkes, if of any man, it may be said that he had no enemies, and the loss of none perhaps would be more sincerely mourned by more and by truer friends. His life was too short, but he has not lived in vain: his influence for good, and his work, will long endure as a heritage to his profession and his country.

ALEXANDER CUTHBERT, M.D., M.R.C.S.

We regret to have to record the death of Dr. Cuthbert, of Waterside, Derry, at the early age of forty. Dr. Cuthbert was a native of Colerainc, and was son of the late Alexander Cuthbert, Esq., long known as one of the most respected Presbyterian elders of that town. He received his early education at Coleraine and Belfast; and was an M.D. of the Queen's University, Ireland, and M.R.C.S. Eng. He settled down at Derry nearly twenty years ago, and acted for several years as House-Surgeon of the City and County Infirmary. Subsequently he succeeded to the charge of the Glendermott Dispensary; and about three years ago, on the resignation of Dr. White, was appointed Medical Officer of the Derry Workhouse. Dr. Cuthbert took a deep interest in literary and scientific pursuits, and his early demise will be sincerely regretted by a very large circle in the locality which he had chosen as the field of his labours.

R. L. SHEFFIELD, F.R.C.S. Edin.

In our Obituary of last week was recorded the death of the above-named gentlemen, who entered upon his professional career at the London Hospital in the year 1864, and soon showed the power of distinguishing himself as an able student. He successfully passed his examination at the Royal College of Surgeons in 1867, and was appointed House-Surgeon at the above-named Hospital in May, 1868. At the expiration of his term of office he was reappointed for an additional period of three months, discharging "the duties with zeal and ability, and to the satisfaction of the House Committee." He was then appointed Clinical Assistant, which appointment he retained until December, 1869. In February, 1870, he was appointed one of the Honorary Surgeons at the Metropolitan Free Hospital, where, by his unremitting attention and devotion to the interests of the institution, he won the esteem and confidence of the entire staff, as well as of the Committee of Management, by whom his death is most sincerely deplored. In January, 1875, he was almost uuanimously elected Assistant-Surgeon to the City Orthopædic Hospital, which appointment, as well as that to the Metropolitan Free Hospital, he held up to the time of his decease, which took place on the 3rd inst.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examination meetings of the College, held on Tuesday, Wednesday, and Friday, March 14, 15, and 17, the following were the successful candidates for the licence to practise Medicine :—

Alexander, Thomas Arthur.
Blake, Walter Bourke.
Browne, Abraham Walker.
Clarke, Henry.
Donelan, Joseph O'Conor.
Ferguson, Edward.
Harvey, Reuben Joshua.
Hederman, William.
Kelly, James Edward.
Macan, Arthur Vernon.
Nolan, Cornelius Joseph.
O'Connor, John Francis.
O'Connor, Lorenzo.
Sampson, Henry Albert.
Whitty, Patrick Joseph.

For the licence to practise Midwifery—

Alexander, Thomas Arthur.
Armstrong, George Richard.
Browne, Abraham Walker.
Clarke, Henry.
Donelan, Joseph O'Conor.
Ferguson, Edward.
Hederman, William.
Kelly, James Edward.
Macan, Arthur Vernon.
Nolan, Cornelius Joseph.
O'Connor, John Francis.
O'Connor, Lorenzo.
Sampson, Henry Albert.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 16 :—

Coumbe, John Batten, Plymouth.
Duke, George Amos, 87, Harrow-road, W.
Goode, Charles Fox, Haverfordwest.
Parter, Thomas Lee, Exeter.
Nicholson, John Francis, Brigg, Lincolnshire.
Webster, Norman Peter, Burton-road, Brixton.
Williams, Richard, Cefu Coch Garn, North Wales.

The following gentlemen also on the same day passed their primary professional examination :—

Culpin, Millice, London Hospital.
Wagstaff, John Philip, London Hospital.
Webb, Henry Langley, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

HAWARD, EDWIN, M.D.—Physician to the North London Hospital for Consumption and Diseases of the Chest, *vice* W. Lomas, M.D., resigned.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—Frederick William Blake, M.D., promoted to the honorary rank of Deputy Inspector-General of Hospitals and Fleets in her Majesty's Fleet from March 20.

WAR OFFICE.—Surgeon-General John Drope McIlree retires upon half-pay from March 21. Surgeon-General Charles Alexander Gordon, M.D., C.B., to be Honorary Physician to her Majesty, *vice* Inspector-General Sir David Dumbreck, K.C.B., M.D., half-pay, deceased.

MILITIA.—Surgeon Edward Morris resigns his commission in the 2nd or South Devon.

BIRTHS.

BAKER.—On March 17, at 26, Wimpole-street, Cavendish-square, the wife of W. Morrant Baker, F.R.C.S., of a son.

BRIGHT.—On March 17, at Cannes, the wife of G. C. Bright, M.D., of a daughter.

FLETCHER.—On March 13, at 149, Camden-road, N.W., the wife of J. Corbet Fletcher, M.D., of a daughter.

GANGE.—On March 18, at Court-street, Faversham, the wife of Fred. A. Gange, M.D., of a son.

GRANT.—On February 29, at Conadino House, Malta, the wife of Surgeon-Major R. A. P. Grant, Army Medical Department, of a daughter.

MACSWINNEY.—On February 2, at Laymastotte, Ceylon, the wife of G. H. MacSwinney, M.D., of a son.

MAHOMED.—On March 16, at 54, Norfolk-square, Hyde-park, W., the wife of F. A. Mahomed, M.D., of a daughter.

MARRIAGES.

COHN—DAVIS.—On March 15, at the Synagogue, Upper Berkeley-street, Herrmann Cohn, Esq., of 17, Avenue-road, Regent's-park, to Anita, eldest daughter of Maurice Davis, M.D., of 11, Brunswick-square, W.C.

DRUITT—FOULDS.—On February 15, at St. Gabriel's, Clarendon, Jamaica, Cuthbert Druitt, third son of Dr. Robert Druitt, of London, to Elizabeth Mary, second daughter of John C. Foulds, Esq., of Clarendon-park, Jamaica, and late of Glasgow, N.B.

JEFFERY—WILLIAM.—On March 16, at the Wesleyan Chapel, Croydon, William Jeffery, to Susan, youngest daughter of the late John Cates, M.R.C.S., of Clapton.

KISCH—ALBERT.—On March 21, Albert Kisch, M.R.C.S. Eng., of 46, Portsdown-road, and 2, Circus-place, Finsbury-circus, to Annie, daughter of Mr. Ellis A. Davidson, of 29, Clarendon-gardens, Maida-hill.

WARBURTON—MELVILL.—On February 15, at Baroda, W. P. Warburton, M.D., H.M.'s Bengal Army, to Harriot Emily, daughter of P. S. Melvill, Esq., C.S.I., Agent to the Governor-General at Baroda.

DEATHS.

CROOME, ROBERT, M.R.C.S. Eng., on March 20, at Middleton Cheney, Banbury, in his 82nd year.

DAY-GOSS, SAMUEL D., M.D., F.R.G.S., late of London, on March 15, at his residence, Sidmouth, Devon, aged 48.

DEWAR, DONALD, M.D., on March 18, at 27, Elmbank-crescent, Glasgow, in his 51st year.

GAUDET, FANNY PELHAM, widow of the late J. M. Gaudet, Esq., and fourth daughter of the late Hon. St. Louis Philip, M.D., of Trinidad, West Indies, on March 13, near Oxford.

GILES, SAMUEL, M.D., late of Lewisham High-road, on March 14, at Margate, in the 44th year of his age.

GREENHILL, ADRIANA, wife of Josh. Ridge Greenhill, F.R.C.S. Eng., Royal Artillery, eldest daughter of William Scott Carmichael, F.R.C.S. Edin., of Edinburgh, on February 16, at Bermuda, aged 30.

JAMIESON, GERTRUDE, daughter of Robert Jamieson, M.D., Physician to the Royal Lunatic Asylum, on March 13, at Elmhill, Aberdeen, aged 21.

MAURY, FRANCIS, second son of the late Francis Maury, M.R.C.S., L.S.A., of Steyning, on March 19, at 185, Malpas-road, New Cross, aged 30.

TURNBULL, GAVIN AINSLIE, Staff Surgeon-Major, Edinburgh, and late of the 21st Hussars, at Clevedon, on March 18.

WELD, GEORGE HENRY, M.R.C.S.E. and L.R.C.P.E., on March 17, at Chesnut Lodge, Hurstmonceaux, Sussex, in the 44th year of his age.

WILCOX, EMILY, wife of W. Wilcox, L.R.C.P., M.R.C.S., on March 16, at Holly House, N. Walsham, Norfolk.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BERMONDSEY.—Medical Officer of Health. Applications, with testimonials, at the Vestry Offices, Maltby-street, on or before April 1.

BIRMINGHAM GENERAL HOSPITAL.—Registrar and Pathologist. Applications on or before March 31.

CHARING-CROSS HOSPITAL.—Physician or Surgeon for the treatment of Diseases of the Skin. Applications on or before March 28.

CHRISTCHURCH UNION.—Medical Officer for the Eastern District. Applications, with testimonials and qualifications, to be delivered at the Union Board Room, before twelve o'clock at noon on March 27.

GREAT NORTHERN HOSPITAL, CALEDONIAN-ROAD, N.—Physician. Must be duly qualified. Applications, with testimonials, on or before April 4.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN-SQUARE.—Physician. Applications on or before March 25.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY, AND LUNATIC ASYLUM.—Honorary Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before March 25.

SUFFOLK LUNATIC ASYLUM.—Medical Superintendent. Applications to the Clerk of the Peace, County Hall, Ipswich, on or before April 4.

UNIVERSITY OF LONDON.—Eighteen Examiners : two in Chemistry, at £175 per annum each ; two in Medicine, at £150 per annum each ; two in Surgery, at £150 per annum each ; two in Physiology, etc., at £150 per annum each ; two in Anatomy, at £100 per annum each ; two in Botany, at £75 per annum each ; two in Obstetric Medicine, at £75 per annum each ; two in Materia Medica, etc., at £75 per annum each ; and two in Forensic Medicine, at £50 per annum each. Applications on or before March 28.

WALSINGHAM UNION.—Medical Officer for the Fakenham District. Applications, with testimonials, on or before March 28.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Walsingham Union.—Mr. F. Coomber has resigned the Raynham District ; area 14,225 ; population 2721 ; salary £38 per annum.

Warwick Union.—Mr. J. W. Bullock has resigned the Workhouse ; salary £64 per annum.

APPOINTMENTS.

Bridgnorth.—Thos. P. Blunt, F.C.S., as Analyst for the Borough.

East Preston Union.—John E. G. Coxwell, L.K.& Q.C.P. Ire., M.R.C.S. Eng., to the Worthing District.

Narberth Union.—Louis G. Leslie, L.R.C.S. Edin., L.R.C.P. Edin., to the Begelly District.

North Witchford Union.—Joseph B. Pike, M.R.C.S. Eng., L.R.C.P. Edin., to the Fourth District.

Wantage Union.—Wm. Richardson, L.R.C.P. Edin., L.R.C.S. Edin., to the Hendred District.

BY the overheating of a flue, a fire broke out on the 16th inst. in the Gloucester County Asylum. It was, fortunately, quickly extinguished by the attendants before much damage was done.

IT is proposed to erect a Children's Hospital at Ipswich, as a memorial to the late Mr. J. P. Cobbold, M.P. A considerable sum has already been contributed, the Mayor heading the subscription-list with £100.

THE small-pox continues very prevalent and fatal at Bombay. On Friday, February 18, thirty-three deaths were registered from it. On the following Monday there were fifty-eight deaths registered for two days.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.—The sixty-second annual meeting of this charity was held on the Hospital premises in the City road last week, under the presidency of the Right Honourable the Lord Mayor. The gross receipts last year amounted to £4389, as against £4382 in 1874. The expenditure in maintenance was £2270 5s. 10d., and in management £642 1s. 1d. The Committee have decided to commence the erection of a new out-patients' department at once, at a cost of £2000. It having been stated that the expenditure of this Hospital was excessive in comparison with that of other similar institutions, a special committee was appointed to examine thoroughly into the expenditure of the Hospital. This committee reported that if the requirements of the patients be fully met, the expenditure at a hospital on the scale of the Royal Chest Hospital must be greater by comparison than at larger hospitals, but they found that beyond this point the expenditure had been greater than it should be. The Committee recommended various economies, and their suggestions have been adopted.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Henry Marais.—You can obtain the two books you want by writing to the publishers of this newspaper and enclosing them a Post-office order or draft on a London banker for 26s.

Dr. B.—The election of Dr. Barnes' successor as a member of the Midwifery Board will not take place for the present. The names of two gentlemen are mentioned—viz., Dr. Snow Beck, F.R.S., and Dr. Gervis. The former is a Fellow of the College, and the latter a Member.

A Fellow, Southampton.—For some years past the number of Fellows of the College by examination, recording their votes at the annual elections into the Council of the College, have been in excess of honorary and elected Fellows. We find that in 1874 there were 127 by examination and 108 by election—total, 235; in 1875, 112 by examination and 106 by election—total, 218. During the past collegiate year, seventeen gentlemen passed the examination, and were admitted Fellows of the College—viz., four out of ten candidates in November, and thirteen out of twenty-four in May. You will find that the last published Calendar of the College will give you the desired information.

Dr. Denman.—The examination of ladies for the licence in Midwifery of the Royal College of Surgeons has not yet taken place. We understand that at present there are three candidates.

Interesting Announcement.—E. T. sends us the following advertisement cut from the *Times*, and asks what it can mean:—"MEDICAL.—An opportunity for a Medical Man, with small capital, to become interested with a lady, possessing capital and two first-class diplomas, in an institution. No risk. Apply any day between eleven and one, to," etc.

Necropolis.—You will find a full account of the disgusting disclosures in "Gatherings from Graveyards," by Mr. Geo. Alfred Walker, M.R.C.S. Eng., wherein he thoroughly exposes the dangerous and fatal results produced by the unwise and revolting custom of inhuming the dead in the midst of the living. Mr. Walker, who long since retired from the practice of the profession, is still devoting his attention to the same subject with respect to some of the crowded cemeteries.

Obstetrician, York-road.—Since the establishment of the examination for the licence in Midwifery of the Royal College of Surgeons, four persons have presented themselves without any qualification, of which number only one was approved. We understand that there will not be another examination until May, when, of course, the female candidates will be submitted to an examination by the chairman as to their knowledge of anatomy, etc., as in the case of others *sine* diploma.

Open Places Spoliation.—

"It is a sin in man or woman,
To steal a goose from off a common;
But who shall plead that man's excuse
Who steals the common from the goose?"

A Reader.—During the latter years of his life, Dr. Jenner devoted much of his time to the subject of vaccination, but he never wrote much concerning it subsequently to 1803. He died in 1823.

C. W. Boone.—1. 1873. 2. Bozman's "History of Maryland" says:—"The climate of Maryland is perhaps the most delightful on the American continent. It is a happy medium between the extreme heat of the south and the extreme cold of the north. The winters are mild, but the atmosphere is sufficiently bracing to nerve the system for the exhaustion of the warmer part of the year."

John Hunter.—We have occasionally been exclusively favoured by autograph collectors (especially Messrs. Charles Hawkins and T. M. Stone) with copies of genuine letters of the above distinguished surgeon, for publication in the *Medical Times and Gazette*, from the originals in their possession, and as everything relating to Hunter is always of importance, we have great pleasure in publishing the following deeply interesting letter, written only a few months before his awfully sudden death:—

"Dear Sir,—I was favored with your letter of September 31, (a) informing me of two birds called the Habanah being *ship'd* on board the "*Bulldog*," but unluckly (*sic*) the Birds died on the passage; however, I consider myself as equally obliged to you for thinking of me and taking so much trouble. I was sorry at the loss of your insects after all the trouble of collecting them, but I hope you will be more *successfull* in future. I mentioned your proposal to Sir Joseph Banks of having a gardiner sent out. He told me he had had a letter or letters to that same purpose from you, therefore I suggested if it was a scheme he *aproved* of he would settle that with you; therefore I *drop'd* it. There is one thing I wish very much to have settled in Natural History, which is the natural history of Swallows. They breed with us in the summer and leave us in the winter, and it is what becomes of them in our winter. Now, if they are with you in the winter, and if they should breed with you in that season, it would be a proof that they are birds of passage; and upon the same principle you should have many more in the winter than in the summer. As there are four or five differient species in this country in the summer, I should like to have specimens of those that are with you in the winter. I remember seeing swallows in Portugal in the winter, but I cannot say what species they were. It would hardly be possible to get *orstrach* eggs just going to hatch, and to crush the shell and put them into proof spirits to preserve them till they come to England. If a Foal *camell* was put into a tub of spirits and sent I should be glad. Is it possible to get a young tame lion, or indeed, any other beast or bird? If *camelions* were sent, it should be in the Spring, as then one could feed them with flies through the summer. Are there any *cookews* with you? We have none in the winter. I want everything respecting the bee tribe, such as wasps, with their nests; also hornets with theirs. They are a very large tribe. I would have sent you a paper I wrote on the anatomy of the bees, which was publish'd in the *Philosophical Transactions*, but upon inquiry, I found it would cost you more than it was worth. I am a subscriber to the African Society, but I have not heard of the cachuna I think; but as I cannot always attend, they may have come without my knowing it. I consider myself as very much obliged to you for your attention to me, and I wish I knew how I could return it, which would give me pleasure. I hope you keep your health well.

"I am, dear Sir, your much obliged and humble servant,

"January 15, 1793. JOHN HUNTER."

For this interesting letter, which was sold at Messrs. Sotheby's on the 16th inst., there was a sharp competition between Mr. Stone, of the College of Surgeons, and (we are informed) an American lady, to whom the former was obliged to yield at £7 10s.—a price unknown amongst autograph collectors for a letter of Hunter's. The same "lot" contained an official document only signed by Hunter, addressed to the Marquis Townshend, to the effect that a Mr. Tudor, who had agreed to purchase a Mr. Hamilton's commission as Surgeon to the 2nd or Queen's Regiment of Dragoons, under his lordship's command, who was allowed to sell, having purchased the same, he looks on Mr. Tudor, who was duly examined at Surgeons' Theatre, as a properly qualified and fit person to become the purchaser.—Signed, "John Hunter, Leicester-square, January, 7, 1791." It is not a little singular that at the same sale the excessively rare autograph of the immortal discoverer of the circulation of the blood was knocked down for only £3 10s.

A MIDWIFERY CASE.

At the Glasgow Small Debt Court, the following case was disposed of on the 20th inst.:—Dr. Pearson claimed 19s. 6d. for professional attendance on one of his patients—2s. being for a visit, and 17s. 6d. for attendance during confinement. It appeared that the doctor had been engaged a month before the expected birth, and that when his patient became unwell he was sent for. On his arrival, he said the child would not be born for two hours, and left the house, remarking that when his patient became worse he should be sent for. This was done, but before the doctor's arrival the child was born, a midwife being in attendance. The item 17s. 6d. was objected to, on the ground that the doctor had failed to be in attendance in time. The Sheriff said that he thought the pursuer should have remained with his patient, and decerned for 7s., being 5s. for the second visit, without costs.

NITROUS ACID FUMIGATION.

This was brought into use by Dr. James Carmichael Smyth, of the ancient family of Carmichael, to which name he added that of Smyth. He was for many years Physician to the Middlesex Hospital, and died in 1821. Dr. Carmichael Smyth never claimed to be the inventor of acid fumigations, which, in the form of sulphurous acid, obtained by burning sulphur, were known from the age of Homer. Sir James Pringle, also, in 1750 had used hydrochloric acid vapour obtained from sea-salt with sulphuric acid. Churches and hospitals at Dijon were disinfected by the same acid in 1773, under the advice of Guyton, Morveau, and Chaptal. Dr. Carmichael Smyth, who demonstrated his process by disinfecting Winchester Gaol in 1780, only claimed for the nitrous acid fumigation that it might be employed in infected rooms with safety to the inmates, whilst sulphurous and hydrochloric acids and chlorine cannot be so employed. He received a Parliamentary reward of £5000 in 1802, in recognition of his services.

PATENT MEDICINES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you inform me as to what constitutes a patent medicine? Are they registered or patented at any Government office? Where are the stamps upon them sold? Is there any difference between a preparation often prescribed by our profession—*e.g.*, Collis Browne's chlorodyne—and the quack remedy, Cockle's pills? I believe both Dr. Browne and Dr. Rooke (of Scarborough) are qualified; the latter is a J.P., and has been twice Mayor of Scarborough. Is there any difference between those gentlemen and advertising druggists—such as Clarke, of "blood mixture" fame? The patent medicine trade appears to be greatly on the increase. Do they all pay? Certainly I do not see many of them in Yorkshire. I think it is high time that the medical profession should come to some decision as to which, if any, patent medicines should be recognised, as some are largely prescribed, and others not at all. I am, &c.,

Walton, March 13. A YOUNG SURGEON.

(a) Probably 1792, as the letter is dated January 15, 1793, the year in which he died, and evidently for a correspondent residing in India.

Benefactor.—Sir Hugh Myddelton, Bart., was sixth son of Richard Myddleton, Governor of Denbigh Castle. His great scheme of supplying the North of London with pure water was commenced in 1608, and finished in 1613, at a cost of £500,000. James I. made him a baronet, and remitted the fine (£1095) always paid for that honour. Sir Hugh died in very straitened circumstances.

COMMUNICATIONS have been received from—

The Editor of Iron, London; The Secretary of the Obstetrical Society of London; Mr. Walter Coulson, London; The Secretary of the Provident Surgical Applicance Society, London; The Secretary of the Local Government Board, London; Dr. J. W. Moore, Dublin; Mr. J. Hatchard, Alton; The Secretary of the Metropolitan Free Hospital, London; The Secretary of the Abernethian Society, London; The Secretary of the Officer of Health Department, Bolton; Mr. Christopher Heath, London; Dr. Charles Bell Taylor, Nottingham; Dr. Robert Barnes, London; Dr. Francis Ogston, Aberdeen; Mr. W. E. Poole, London; Mr. Henry Morris, London; Dr. C. Handfield Jones, London; Mr. B. R. Wheatley, London; Mr. George Brown, London; Dr. Edis, London; Mr. Jonathan Hutchinson, London; Mr. R. W. Parker, London; Dr. F. Churchill, London; Mr. J. Chatto, London; Dr. Bruce, London; Mr. S. Hamilton Cartwright; Mr. T. Jones, London; Mr. James Muir, London.

BOOKS AND PAMPHLETS RECEIVED—

Annual Report of Medical Missions, Home and Foreign—Thompson's Urinary Organs, fourth edition—Harris's Lithotomy—Johnston's Report of the Rotunda Lying-in Hospital—Shipping Legislation—American Clinical Lectures, vol. i., Seguin—Massage in Amenorrhœa and Dysmenorrhœa, by Douglas Graham, M.D., of Boston—Dr. Poore's Electricity in Medicine and Surgery—Dr. John Day on the Walls and Flooring of Ordinary Hospitals—Report of the Metropolitan Asylum District Board—Dr. Eustace Smith's Clinical Studies of Disease in Children.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—National Food and Fuel Reformer—Philadelphia Medical Times—Pharmaceutical Journal—Centralblatt für die Medicinischen Wissenschaften—La France Médicale—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Medical Examiner—Canada Lancet—Temperance Record—Public Health—Boston Journal of Chemistry—The Builder—Canada Medical and Surgical Journal—Melbourne Medical Record—Medical Enquirer—Chicago Medical Journal and Examiner.

APPOINTMENTS FOR THE WEEK.

March 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On the Human Senses."

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Henry Smith, "On some Manifestations of Syphilis and their Treatment" (adjourned). Mr. J. Knowsley Thornton, "On the Surgical Aspect of Pelvic Hæmatocele."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. George Thin, "On Histological Changes in Cancer of the Skin or Epithelioma." Dr. Cavafy, "On the Pathological Anatomy of Syphilis." Dr. Gowers, "On the Development of Spindle-Cells in 'Nested Sarcomas.'"

29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m. Croonian Lectures—Dr. Dickinson, "On the Pathology and Relations of Albuminuria."

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Mr. William Spottiswoode, "On Polarised Light."

31. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal College of Physicians, 5 p.m. Lumleian Lectures—Dr. Habershon, "On the Pathology of the Pneumogastric Nerve."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. James Dewar, "On the Physiological Action of Light." (Part II.)

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 18, 1876.

BIRTHS.

Births of Boys, 1279; Girls, 1244; Total, 2523.
Average of 10 corresponding years 1866-75, 2350·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	768	778	1546
Average of the ten years 1866-75	801·1	757·8	1558·9
Average corrected to increased population ...	...	...	1668
Deaths of people aged 80 and upwards ...	...	...	53

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	18	8	2	13	2	3	1	2
North	751729	...	12	6	1	29	1	3	2	5
Central ...	334369	...	4	1	2	4	...	...	...	1
East	639111	...	10	5	1	15	3	4	4	5
South	967692	1	25	15	3	23	1	4	2	3
Total	3254260	1	69	35	9	84	7	14	9	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·347 in.
Mean temperature	39·0°
Highest point of thermometer	54·2°
Lowest point of thermometer	28·7°
Mean dew-point temperature	32·0°
General direction of wind	W., W.S.W. & W.N.W.
Whole amount of rain in the week	0·83 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 18, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Mar. 18.	Deaths Registered during the week ending Mar. 18.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2523	1546	54·2	28·7	39·0	3·89	0·83	2·11
Brighton	100632	42·7	61	31	51·4	29·5	39·6	4·23	0·21	0·53
Portsmouth ...	124867	27·8	78	52	...	...	...	...	...	...
Norwich	83430	11·2	61	28	51·5	29·5	37·2	2·89	0·77	1·96
Plymouth	72230	51·8	42	43	56·5	34·0	43·2	6·22	1·18	3·00
Bristol	199539	44·8	152	100	50·9	29·5	39·5	4·17	0·72	1·83
Wolverhampton ...	72549	21·4	63	32	49·9	27·4	36·6	2·56	0·73	1·85
Birmingham ...	371839	44·3	306	185	51·2	29·4	38·1	3·39	0·83	2·11
Leicester	113581	35·5	117	44	51·2	28·8	37·6	3·12	0·79	2·01
Nottingham ...	93627	46·9	74	48	52·7	29·0	37·8	3·23	0·67	1·70
Liverpool	521544	100·1	359	269	51·0	27·7	37·2	2·89	0·47	1·19
Manchester ...	357917	83·4	333	196	...	...	...	...	...	...
Salford	138425	26·8	132	77	51·4	26·1	37·0	2·78	0·76	1·93
Oldham	88609	19·0	80	49	...	...	...	...	...	...
Bradford	173723	24·1	130	93	49·4	28·8	36·9	2·72	1·24	3·15
Leeds	291580	13·5	222	126	52·0	30·0	37·5	3·06	1·19	2·79
Sheffield	274914	14·0	237	145	52·0	29·5	37·3	2·95	1·38	3·51
Hull	136933	37·7	95	54	52·0	30·0	36·7	2·61	0·47	1·19
Sunderland ...	108343	32·8	92	37	53·0	25·0	37·7	3·17	0·45	1·14
Newcastle-on-Tyne	139929	26·1	128	54	...	...	...	...	1·23	3·12
Edinburgh	215146	51·3	125	96	48·5	25·0	35·7	2·06	...	...
Glasgow	545144	90·4	430	300	47·6	22·8	34·7	1·50	0·97	2·46
Dublin	314666	31·3	172	174	51·0	25·0	37·8	3·23	0·40	1·02
Total of 23 Towns in United Kingdm	8028595	37·7	6012	3779	56·5	22·8	37·7	3·17	0·80	2·03

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·35 in. The lowest was 28·26 in. at mid-day on Sunday, 12th inst., and the highest 29·82 in. on Saturday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture VI.

MEDICO-LEGAL ASPECTS OF DEATH.

Succeeding the phenomena last discussed, viz., coagulation of the blood, loss of muscular contractility, loss of animal heat, and relaxation of the muscles, I have next to advert to the appearance of a set of signs of death *incompatible with the maintenance of life*, originating in *physical alterations of the soft solids*, and preceding, in *order of time*, the *commencement of decomposition*. The most prominent of the changes marking off this middle period are—(*a*) *softening of the muscles*, on the one hand; (*b*) *rigidity of the muscles*, on the other; and (*c*) the *appearance of lividities* on the surface of the body.

(*a.*) The softening of the animal tissues which follows *dissolution after a short period*, is not to be confounded with the reappearance of the same phenomenon at a later period under the influence of decomposition. This last is the "cadaveric softening" of authors, and *follows the disappearance of rigidity;* while the former, on the contrary, is found to precede it.

Fig. 1.

The *softness*, or *want of elasticity*, of the textures of the body which speedily succeeds death, is the first of the alterations in it which are due to the destruction of their *physical properties*. It is doubtless owing partly to differences in the distribution of the fluids present in the tissues, and partly to changes in the tissues themselves. The flattening of those parts of the body upon which it rests (*vide* Fig. 1), in consequence of this loss of its elasticity, has been considered on good grounds as a valuable criterion of the reality of death. The flexibility of the joints, which is noticeable at the same time, obviously depends on the now relaxed state of the muscles generally—a phenomenon, as we shall presently see, not universally observed in the dead body.

(*b.*) The next sign which may be regarded as indicative of a further stage, distinguishable in general with sufficient accuracy, in the series of evolutions in the dead body, is that of the appearance of *cadaveric rigidity*, or that change which occurs in the body after death, when the softening described at last lecture has given place to an opposite state of the limbs and joints. In place of their former flaccidity, the muscles now acquire a brawny firmness, and it requires some force to move the joints from the position—whatever that may be—which they have by this time assumed. This state of the muscles and joints continues till the approach of putrefaction; but it is not equally marked in all cases, nor does the period of its appearance and disappearance correspond in different bodies. In those cases, which we formerly noticed, where the vital heat is succeeded, without any appreciable interval, by the rise of temperature which is caused by the commencement of decomposition, the rigidity is usually so slight, or has given place so speedily to cadaveric softening, as to have escaped notice entirely. Cadaveric rigidity is considered an important indication of the reality of death. This change is first noticed in the lower jaw, then in the neck and trunk; it next appears in the lower extremities, and, last of all, the upper. Its departure observes the same order; and once gone it does not return, but again gives place to a state of relaxation of the soft parts, even more marked than before. *The period of the appearance* of cadaveric rigidity is liable to vary considerably in different cases. Eight, ten, and twenty hours have been fixed on as the date of its occurrence, while an occasional delay has been contended for of even thirty hours. Its *mean duration* is from twenty-four to thirty-six hours, although it has been known at times to last for six or seven days, or even more. These results are modified by season, temperature, and the nature of the fatal disease or injury.—(Devergie, Caspar.) As a general rule, a low temperature favours the rigidity of the body; as does previous vigour of constitution, sudden death from violence or accident, and the middle period of life, though it has been met with well marked in the very old, and even in still-born infants, of which I have lately met with an example. After diseases of the nervous system, fevers, narcotic poisoning, and death by lightning, the cadaveric rigidity is but little marked, though even in these cases it may usually be observed to occur. That *the seat of the rigidity* is the muscular system is universally admitted, but what the precise state of the muscular tissues is, has not been determined, notwithstanding the various explanations which have been advanced on the subject by physiologists and medical jurists.

The above remarks apply to rigidity as it manifests itself *in the limbs and joints*. It should not be overlooked, however, that the same phenomenon is to be met with occasionally in *certain internal parts*, such as the heart and intestinal tract. In the latter situation, its occurrence can lead to no mistake. In the former, the contraction thus induced has led to the assumption of the heart being hypertrophied from the close contraction of the left ventricle, which in these instances mimics very closely the so-called concentric hypertrophy. Indeed, so much is this the case, that certain pathologists have set down all such cases, as laid down by authors, to cadaveric rigidity merely in the absence of actual disease.

Cadaveric Spasm.—It is of importance to be aware of a species of rigidity different from the above, which is liable to occur after death, and which might be easily confounded with cadaveric rigidity. I allude to what has been termed *cadaveric spasm*. It consists in a sort of spasmodic contraction assumed by the muscles at or before death, which they are found to retain for some hours after death, passing then into true cadaveric rigidity. This so-called spasm has usually been observed in certain cases of sudden death: as after the more violent forms of death in battle; after *apoplexie foudroyante*, and serious cerebro-spinal injuries. I have known it to occur, however, after deaths by drowning, pneumonia, and pulmonary apoplexy.

That this state of the body after death is not of any very rare occurrence, I am inclined to think, from having met with several instances in my own practice, having had occasion in 1850 to record three such cases, in a paper in the tenth volume of the *Medical Gazette* (new series, pages 77, 78), and eight more in a review of Kussmaul on "Cadaveric Rigidity," in the nineteenth volume of the *Brit. and For. Medico-Chirurgical Review* (pages 303, 304).

A startling incident at the famous Balaklava charge in the Crimean War belongs apparently to this class of cases. "Captain Nolan, while riding in advance of the cavalry, received a wound from a Russian shell which tore open his chest. The arm which he was waving in the air at the moment remained high uplifted, and he retained his seat on his horse, which wheeled round and retreated; the rider gave a death-shriek, and passed through the ranks in the same position and attitude before dropping from the saddle."—(Kinglake's "Crimea," vol. iv. pages 257, 258.)

I need scarcely say that it is of importance, in medico-legal practice, to be aware of the occasional occurrence of such cases as these. Thus, a weapon grasped in the hand of a corpse points to death by suicide, as such a circumstance could not be produced by a murderer. It has been actually found that the hand of a dead person cannot be made to grasp a weapon in the same way as a hand that has had it firmly held by the contraction of the muscles at or before the extinction of life. "At the trial of a person, named Saville, in 1844," in England, "it came out in evidence that the deceased, his wife, was found dead with her throat cut, and that there was a razor, not grasped, but lying *loosely* in her hand. There was no blood upon the hand which held the razor, and this, together with the fact of its being loose, rendered it certain that the

weapon must have been placed there by some one after the woman's death."

In a case tried in France in 1835, a man narrowly escaped conviction as the murderer of his father. The latter had been found dead in a sitting posture, with a recently discharged pistol grasped in his right hand, the weapon resting upon the thigh in such a way as that the slightest motion of the part would apparently have caused it to fall. It was assumed that the son had produced the injury to the face which had been the cause of death, and of having afterwards placed the pistol in his father's hand in order to induce the supposition of suicide. The medical witness, by showing that the grasping of the weapon could not have been simulated after death, led to an acquittal.

The occurrence of the same phenomenon, on the other hand, may, by attention to minute circumstances, negative the possibility of suicide. Thus—

"In the case of Lord William Russell," murdered by his valet, "it was observed that one hand of the deceased firmly grasped the sheet of the bed, as if in a struggle with an assassin."

"In a case tried" in England "the prisoner was charged with the murder of an old woman with whom he cohabited." The body was discovered with injuries about the head, pointing to death by violence. "In her right hand was found a considerable quantity of brown hair, and in the other a single grey hair," all "grasped evidently in the struggle for life. The morning following the murder the prisoner went to a hairdresser, and desired to have his hair and whiskers cut. This man observed that the hair and whiskers had been recently cut, and evidently by some one unaccustomed to hair-cutting." The whiskers, unlike the hair of the head, had turned grey. "The hairdresser was of opinion that the hair so found in the hands of the deceased was of the same colour as the prisoner's. This, with other circumstances, led to his conviction."—(Taylor, *Med. Gaz.*, new series, vol. ii. pp. 310-11.)

In some of my own cases the suspicion against the possibility of criminal violence was averted from attention to the circumstances of the deaths. One or two of these I may briefly relate from one of the publications recently referred to, which called for investigation by the law authorities here.

1. In April, 1833, a woman, aged thirty-six, was found dead in a house of bad fame in Albion-street, Aberdeen. She had been drinking shortly before with some young men, who were observed to leave the house suddenly, and to take to their heels. The woman lay on her back, her knees drawn up, and her hands grasping the clothes, the body retaining its position in consequence of cadaveric spasm having come on at the moment of death. It was discovered on dissection that this female had died of pneumonia, and it came out in the precognition that one of the young men had been attempting to have connexion with her at the moment of death, which the woman was making some effort to prevent. The parties were all in drink at the time.

2. In the case of rape and murder referred to near the conclusion of Lecture IV., the body of the man's victim had been fixed at death in much the same position as in the last case: one of the knees and one elbow were half bent, one of the upper extremities extended at a right angle with the trunk, and the thighs apart.

3. A woman who kept a brothel in Aberdeen was found in April, 1837, in bed, suffocated; her face buried in the pillow, and her limbs fixed by cadaveric spasm in such a position as to show that she had died in a severe struggle to escape from the prone position in which she was lying at the time of her death. As the inmates of the house were of the worst description, and as the woman was known to have had money in her possession, a suspicion arose that she had been murdered. It turned out on investigation, however, that in a state of intoxication the deceased had been thrown carelessly into bed with her face downwards, and left there, and that she had been believed to have been too drunk to rectify her position, notwithstanding some convulsive efforts to do so, when the weight of her head and bust, by burying her mouth and nostrils in the pillow, had caused suffocation.—(*Med.-Chir. Rev.*, vol. xix. pages 304-5.)

It should be known, however, that a similar rigid state of the muscles occurs at or after death by strychnia, persisting till ordinary cadaveric rigidity comes on, and only disappearing with the disappearance of this last. To distinguish betwixt this rigidity from strychnia and ordinary cadaveric rigidity, we are furnished with a discriminating test in the circumstance, which I have been able to verify, that when the former is forcibly overcome it returns after some time, which is not the case with the latter.

Other forms of tetanic spasm—such as are occasionally seen in cases of apoplexy, catalepsy, syncope, and asphyxia—it is believed disappear shortly after death.

When to the series of signs in the period taken under review—pallor, lustreless eyes, loss of muscular contractility and of animal heat, and primary relaxation of the muscles—is added the subsequent appearance of cadaveric rigidity, the body, according to Caspar, may be presumed to be that of a person who has been dead within from two to three days at the longest.—("Forensic Medicine," vol. iii. page 30.)

(To be continued.)

ON GRANULAR CONJUNCTIVITIS (EGYPTIAN OPHTHALMIA) WITH CATARACT COMPLICATIONS.(a)

By J. R. WOLFE, M.D., F.R.C.S.E.,
Surgeon to the Glasgow Ophthalmic Institution, and Lecturer on Ophthalmic Surgery in Anderson's University.

Gentlemen,—Permit me to submit to your consideration and inspection the result of a course of treatment which I have adopted for the cure of that intractable disease—granular conjunctivitis—which is the pest of ophthalmic hospitals. The subject is one which has taxed the energies of the most distinguished writers on eye disease, and has formed the topic of discussion at every Ophthalmological Congress. There is, however, such a divergence of opinions with regard to its classification, pathology, etiology, and treatment, that a bare reference to an adopted nomenclature and principles is impracticable: I therefore cannot avoid making some preliminary remarks on the subject. I consider granulations to be, in some respects, an aggravated form of catarrhal conjunctivitis. Trousseau maintained that erysipelas is, in most cases, of purely traumatic origin. He used to call our attention to erysipelas in the face, for instance, where it could generally be traced to the pricking or scratching of a pimple, or to a herpetic eruption at the angle of the mouth or nose. A wound, even so slight as almost to escape our cognisance, may, under certain external or internal conditions, give rise to erysipelas.(b) Now, I consider catarrhal conjunctivitis as a form of erysipelas of the conjunctiva, caused by the dusty particles in the air lacerating the epithelial surface with which they come in contact. As a proof that this is its real origin, I may here remark that I have observed that, in cold and damp weather, when bronchial catarrh is prevailing, catarrhal conjunctivitis is of comparatively rare occurrence; the sporadic cases, when happening, can mostly be traced to cold draughts. But in dry, even warm weather, with high winds and dusty roads, there is an influx of patients from various parts of the town who suffer from catarrhal conjunctivitis. The different degrees of the inflammation depend on the character of the particles by which the conjunctiva has been irritated, and the extent to which they are entangled by it, this forming the measure of the extent of inflammatory effort required to extrude them. I account for the different degrees of severity in the same way as I explained(c) how an injury, however slight, inflicted with coal, proves destructive to the cornea. With due allowance, then, for atmospheric influences and constitutional peculiarities, my clinical observations have led me to regard the severity of the attack as a great deal dependent on mechanical causes—namely, the nature of the irritant. Hence, in persons of ordinary health, when the source of irritation consists merely of ordinary dust, we have—

1. Catarrhal or papillar conjunctivitis, *i.e.*, simple hyperæmia of the papillæ of the conjunctiva, giving it a velvety appearance, readily curable, and not contagious.

In cachectic subjects, or where the source of irritation is not purely mechanical, but consists in part of organic or decomposable material, we have—

2. Follicular conjunctivitis, *i.e.*, hypertrophy and formation of lymph-follicles upon the conjunctiva palpebræ, giving a sort of raspberry appearance to the surface, which is red or livid

(a) A demonstration given at the Annual Meeting of the British Medical Association in Edinburgh, August, 1875.
(b) *Clinique Médicale*, vol. i. page 296.
(c) "On Traumatic Cataract." Report of Ophthalmological Congress. London, 1872, page 81.

in colour. The secretion in this form is decidedly contagious. These enlarged follicles disappear after four to eight weeks, without leaving conjunctival cicatrices behind.

On the other hand, in Egypt and in other malarious districts, in barracks, poor-houses, and asylums, with an atmosphere loaded with organic impurities, the disease assumes a different character—so different, indeed, that it can hardly be recognised as springing from the same source: we have, namely—

3. Egyptian ophthalmia or granular conjunctivitis-trachoma (τραχύς, rough). The inflammation here is of a peculiar kind, viz., that which gives rise to fibro-albuminous exudations resembling boiled sago or frogs' spawns, which are deposited partly under the epithelium and partly in the connective tissue of the conjunctiva palpebræ, and the *cul-de-sac*. These granules are no new formation, but hyperplasic inflammatory products, which may invade the conjunctiva either primarily, or may be the sequelæ of a purulent attack. The vesicular or granular stage is the chronic indolent condition of the disease, the acute being the purulent stage. Between these conditions there is the subacute or mixed stage. This form is highly contagious, and when it heals always leaves behind conjunctival cicatrices. The divisions of writers into *true* and *vesicular* granulations is, to me, quite unintelligible. Neither do I think there is any reason for regarding the suppurating granulations as Egyptian ophthalmia, and the indolent form as mere granulations. It is the same disease in different degrees of activity. The indolent form may at any time rise to the suppuration stage, the same as the suppurative granulations may retrogress into the vesicular form. The disease is apt to involve not only the conjunctiva, but the tarsal cartilages, producing entropion, and by its friction upon the cornea gives rise to pannus (trachomatous), degeneration, and rupture of the cornea.

These few remarks I deem it necessary to premise, in order to explain my views on the nature of this disease.(d)

Now, with regard to the treatment. According to this view it is easily explainable why, in the first stage of the attack, warm poultices, as recommended by von Graefe, are of great use, because they promote suppuration and the discharge of the foreign bodies or impurities which cause and propagate the disease. But when the disease had been of some standing, and therefore confirmed, when the granulations are firmly embedded in the conjunctiva of the eyelids, and friction has produced corneal vascularity, softening, and pannus, then there is the beginning of an interminable course of treatment and perplexity.

I have never seen any satisfactory result accruing from the use of astringents, of which bluestone enjoys the greatest favour.

Inoculation with blenorrhagic pus is highly spoken of as a curative agent by competent authorities, but I have never availed myself of this remedy, because in all my visits to those hospitals where this treatment is resorted to, I have never seen what I could call a cure. One case, indeed, which occurred in my own practice, did not tend to encourage me in adopting it. A boy who was brought to the Ophthalmic Institution with trachomatous pannus, had one eye inoculated with gonorrhœal pus from a fellow-lodger: corneal suppuration and destruction were the result; while the other eye, which escaped inoculation, completely recovered under treatment.

Since March, 1871, I have discarded all the remedies in vogue, and adopted a uniform method of treating this disease. To this method I have adhered invariably, and found the result so satisfactory that I have seen no reason ever to depart from it. The remedies on which I rely are—1, scarification; 2, syrup of tannin; 3, friction; 4, solution of atropine; 5, astringent collyria.

Given a typical case of granular conjunctivitis with pannus: I evert the upper and lower eyelids, and, with Desmarre's scarificator, I make free incisions into the conjunctiva of the eyelids, including the *cul-de-sac*. The incisions are only so deep as to allow free exit to the sago-like deposits, without encroaching on the tarsal surface; and with the finger I gradually squeeze out the granules. The surfaces being sponged with warm water to encourage bleeding, a solution of atropine is applied to the part, followed up with a borax lotion in warm water three times a day. Two days afterwards the eyelids are again everted, and the syrup of tannin (℥ij. acidi tannici, syrupi simplicis ℥j.) poured upon them. The lids being drawn forwards, the conjunctival surfaces are then rubbed against each other, with the view of disintegrating any of the deposits which may still remain there. The scarification is again resorted to in a fortnight or three weeks later, according to the exigencies of the case; but the syrup of tannin and friction are applied every second or third day. By these means the granulations are gradually got rid of, and the thickening and corneal pannus disappear, the cornea gradually recovering its transparency.

Gentlemen, I cannot better demonstrate the success of this treatment, than by showing you cases which at the first glance you would pronounce incurable; but you will see that, by persevering with the course of treatment just referred to, I have succeeded not only in arresting the mischief of several years, but even in putting the eyes in such a satisfactory condition as to be able to undergo important operations.

Case 1.—*Granular Conjunctivitis with Pannus, complicated with Traumatic Cataract—Pannus Cured—Cataract Successfully Extracted—Good Sight.*

John M'L., aged nineteen, potter, was for several years affected with granular conjunctivitis and pannus. Two years ago, whilst under treatment for this affection, he met with an accident at his work, producing cataract of his right eye. After the granulations were cured, I extracted the lens, and sight was restored.

If you examine his eyes carefully, you will see the hazy condition of the upper part of the cornea, and the whitish, though smooth, appearance of the conjunctival sac, showing you that the granulations were of a very serious form, and not easily got rid of.

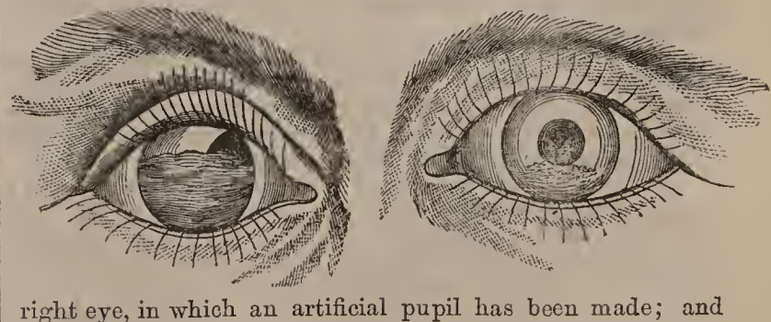
Case 2.—*Granular Conjunctivitis—Pannus in Both Eyes—Central Cicatrices—Artificial Pupil—Cured.*

Neil M'K., aged forty-eight, plasterer, has for upwards of ten years been under treatment for Egyptian ophthalmia, resulting in trachomatous pannus, and in serious changes in the deep and neighbouring structures of both eyes.

When he came under my care, about two years ago, the cornea of the right eye was completely opaque by a thick cicatrix extending over the whole, with the exception of the small inner segment. The eyelids were inverted, and the friction of the lashes adding to the mischief. The left eye also had a central corneal cicatrix, which nearly covered the whole of the pupil. Having seen a good many cases of ophthalmia in the East, I have no hesitation in saying that this was a genuine type of Egyptian ophthalmia. In addition to a heavy coat of sago granules, there was a thin puriform discharge recurring at intervals. The structural changes in the cornea and eyelids are sufficient indication of the severity of the affection.

You will see that, after the granulations had been got rid of, the eyes were in such a satisfactory condition that I was enabled to make an artificial pupil in front of that small portion of transparent cornea, thereby restoring a little sight to the right eye, the inverted eyelids having also been corrected. Figs. 1 and 2 show the amount of injury done to cornea of

Fig. 1. Fig. 2.



right eye, in which an artificial pupil has been made; and also thick central opacity of left eye.

Case 3.—*Granular Conjunctivitis, with Cataract in Both Eyes—Double Extraction—Cured—Good Sight.*

John R., aged sixty-two, has been affected for two years with exuberant granulations, the corneæ not being involved

(d) I would recommend to your perusal an excellent article on the subject by Saemisch, *Handbuch der Augenheilkunde*, iv. Band. Erste Hælffe, 2d Theil; also one by Warlomont, who devotes a long chapter to "military ophthalmia" in his translation of M'Kenzie. These writers differ from each other essentially in their views, and the translator also differs from the author. It is owing to this difference of opinion that, when the Belgian Government, in 1836, appointed a Commission to deal with military ophthalmia, which did such havoc in the army, the Commissioners were selected from among those who had never published their views on the subject.

After curing the granulations, the cataracts in both eyes were removed last spring. His sight is so good that he is able to act as bookkeeper and inspector of the gasworks. On examining his eyes, too, you will find slight traces of a former granular condition.

These patients, gentlemen, present average samples of grave cases with which I have to deal, upon whom all the current remedies had already for years been exhausted, and whose condition was by no means promising; and yet we find this treatment producing the results which I have the satisfaction of exhibiting to you.

ORIGINAL COMMUNICATIONS.

CASES OF OBSCURE NERVE DISORDER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 195.)

No. XVI.

HERPES ZOSTER, FOLLOWED BY SEVERE NEURALGIA AND CONSIDERABLE MOTOR PARALYSIS —BENEFIT FROM GALVANISATION.

Case 16.—Mr. ——, aged sixty-four, solicitor. Of gouty family, and has had gout himself; had it while the herpes was present. No family history of nerve disorder. He was attacked with herpes of the left arm in the beginning of April; the eruption was severe, extending from the hand to the posterior fold of the axilla. It was not attended at first with any notable pain, but after the eruption got better the neuralgia came on. The suffering it produced was extreme; if anything as light as a feather fell on his arm it caused intolerable pain. While taking a railway journey to the south coast the movement of his clothes over his arm pained him exceedingly. I saw him first on August 28: he had by no means the appearance of a neurotic, excitable individual; was calm, though suffering a good deal. His general health was good. The eruption had quite disappeared; there were no cicatrices of the pustules worth mention. The whole arm was considerably wasted; the pectoralis major muscle very much so, leaving a large hollow under the left clavicle. The grasping power of the left hand was very feeble indeed; it was kept mostly in a sling, and was somewhat swollen, the surface being devoid of wrinkles as compared with the right. He could not dress himself without a good deal of help, his left hand being practically useless. He had not used a fork for nearly three months. The neuralgia continued, and the skin was highly hyperæsthetic in the situation occupied by the eruption. I galvanised his arm, and advised him to take sodæ hypophosphitis gr. v. ter die, and cod-oil.

September 2.—Is decidedly better; skin of arm is less sensitive, and the motor power of fingers is notably increased. Pt.

9th.—Improving. Has very little dysæsthesia now; most about the shoulder. Gains power; can bend his elbow with a good deal of force, and can just flex the fingers to touch the thenar eminence. No response to faradisation or interrupted galvanic current in biceps; very little in triceps, or in the muscles at back and front of forearm; the only part which acts a little is the inner of the flexor digitorum moving the two inner fingers. Galvanism was applied to the arm two or three times a week.

14th.—Urine of full colour, specific gravity 1028, clear, not albuminous; quantity, he thinks, a pint and a half in twenty-four hours. Left leg is distinctly larger than right; measures one inch and a quarter more in circumference. The leg feels rather clumsy and pits a little on firm pressure.

18th.—The inner muscles of forearm contract well with a strong faradaic current; the outer do not respond at all. The same difference is apparent during voluntary action: the inner muscles are felt contracting, the outer remain inert. He can flex the fingers more, can touch the wrist with the tips, but his grasp is very feeble. The arm can be flexed powerfully at the elbow, though the biceps and brachialis anticus do not respond to the interrupted current or to interrupted galvanism. He can use a fork now.

October 10.—The muscles on anterior aspect of forearm act fairly well now to faradisation, and so do the muscles on the posterior aspect. The biceps and brachialis anticus act well when the sponge is applied to a spot about the middle and outer part of arm, probably over the track of the musculo-cutaneous nerve, but when it is applied to inner and lower parts no effect is produced. The anterior half of the deltoid acts well; the posterior is more inert. The triceps scarcely responds at all; only a little weak twitching is produced. The left arm and forearm are both about an inch less in circumference than the corresponding parts of the right. The continuous current had been applied about three times a week to each group of muscles. The positive pole was now placed over the lower cervical spines, and the negative over the several groups of muscles. Ordered syr. hypophosphitis ferri et quinæ.

26th.—Can button his braces behind with his left hand.

After this date there was no improvement. Strychnia was injected subcutaneously, and once morphia, and he took phosphorus pills pretty regularly for some time, as well as cod-oil, and for a short time arsenic, and tried the effects of change of air.

February 14, 1873.—The note is: He can dress himself well enough, but has a good deal of pain and uneasiness after 6 p.m. in his left arm.

March 8.—He has pretty good grasping power in left hand, and can perform pretty well any movement, but finds that moving the fingers—as in opening and closing the hand—causes pain up the arm as far as the shoulder.

In April he returned from Brighton improved in health, but the stings of pain plagued him a good deal, shooting up from the hand and wrist to the shoulder and upper front of the chest. Much walking, or riding in a carriage or railway-train, caused increased distress. The pain prevented him from dining out or spending an evening in society. He was better for two days after sparks were taken from his shoulder and cervical spine while standing on an insulated stool; but did not continue the treatment.

My last note of him is dated July 15, when he had been using sulphur-fume baths with decided advantage for some time. He felt very well three days ago, but then a rain-storm came on, and he got a relapse. In the latter part of this year —or it may be in 1874—he died in an acute illness. I did not attend him, but I believe it was some acute lung affection.

Remarks.—Though I did not see the eruption in this case, I cannot doubt that it was of the kind to which the terms zona or herpes zoster are commonly given. Bärensprung recognises a zoster cervico-brachialis due to a morbid condition of nerves belonging to the brachial plexus, and states that the eruption may be confined to the upper arm, the forearm, or even the hand (Hebra). The term zoster seems to me not the best that might be applied to this affection; a preferable one would be "neuroticus," or "neuralgicus," designating the dependence of this form of herpes on nerve disorder, and its tendency to be associated with, or succeeded by, severe nervous symptoms. This is certainly the really distinctive feature of the malady, and the one which needs to be kept specially in view by the practitioner. But for this the mere eruption would be an almost insignificant matter. When, however, the attendant nerve disorder—as is so commonly the case in advanced life—assumes considerable proportions, the case is altogether different. The distress and suffering are sometimes truly formidable. It has not appeared to me that persons of a neurotic diathesis were more prone than others to this grave form of the malady. One sufferer, whose life at one time was almost in danger from the severity of the neuralgia, was a person of a singularly calm and constant temper. The motor paralysis was very marked in the instance above related, and seems to have affected pretty equally all the muscles of the limb. It is not clear whether it commenced simultaneously with the neuralgia, or supervened on it; but the neuralgia was certainly the more permanent disorder. It recurred, and plagued him a good deal, even after he had regained pretty good use of his arm. From this, and from the fact that the neuralgia usually exists alone, it may be inferred, either that the motor paralysis depended on the sensory disorder,—being, in fact, a reflex or inhibitory paralysis—or that the two were co-results of the same morbid process, which affected the sensory more permanently than the motor fibres. Our knowledge of the pathological change giving rise to zona is very imperfect. In Bärensprung's observations the nerves in the intervertebral foramina corresponding to the seat of disorder were found enlarged and reddened. M. Charcot discovered a similar condition of the spinal ganglia, and recently V. Wyss observed the Gasserian ganglion to be acutely inflamed in a case of herpes.

of the fifth nerve. If, now, neuritis of the posterior root and of its ganglion be admitted as the ordinary condition in zona, we must either regard the motor paralysis, when present, as reflex, or assume that in such cases the anterior root is also implicated. But I doubt very much whether the few observations yet made warrant our assuming that posterior root neuritis is the essential change in zona. Eruption is not a frequent result, by any means, of neuritis of nerve-trunks, or of meningitis or myelitis; and ordinary neuralgia of centric origin is certainly not dependent on inflammation of the nerve-centre. The distribution of the eruption has often appeared to me not at all that which one would expect to result from neuritis of a trunk or root; the groups of vesicles are often far apart, and correspond much more to the terminations of some separate ramuscules than to all the ramifications of a trunk. Moreover, the pain appears to be specially in the site of the vesicle-groups, and less in the free surface between them. I am much inclined, on the whole, to agree with Dr. Broadbent in rejecting the view that the root of the nerve is the seat of irritation, and to regard the eruption as essentially an affair of the smaller cutaneous nerves. On this view the paralysis must be reflex. The paralysed muscles were notably wasted, and did not regain their normal size even when their motor power and electro-muscular contractility were considerably improved. This may have depended on defective blood-supply, the arterioles being kept unduly contracted by the irritation of afferent nerves. The coexistence of neuralgia and hyperæsthesia, in this instance, with motor paralysis is of great interest with regard to the true nature of the former. It shows that the sensory and motor disorders arise under the same circumstances, and are essentially similar. If we adopt the view that the motor paralysis was reflex, we have only to suppose that the molecular state of the sensory axis-cylinders conditionating pain was communicated to the granular contents of the motor cells, and, inducing in them a like state, prevented that change in the axis-cylinders of the motor fibres taking place, which is essential to the development of force; and the result is accounted for. On Dr. McDonnell's theory of nervous action, it is very intelligible that changes in the character of the undulations occurring in afferent nerves may be communicated to the efferent nerves with which they are associated. The co-existence of neuralgia with hyperæsthesia in the above history affords considerable proof—if any were yet wanting—of the homogeneity of these two forms of sensory disorder. Hyperæsthesia, pain, and anæsthesia seem to be successive steps in the descent to complete paralysis of a sensory nerve apparatus. Under the head of Treatment, I have chiefly to remark on the good effect of the continuous current, which for some time gave great relief to the sensory, and more permanently amended the motor disorder. In a similar case I should wish to try the electric bath, and, if that failed, frictional electricity.

(*To be continued.*)

ABRIDGED NOTES OF CASES OF

AMENORRHŒA FROM LEAD-POISONING.

By THOS. STRETCH DOWSE, M.D., F.R.C.P.,
Physician-Superintendent to the Central London Sick Asylum, Highgate.

Of the many known and recognised results of lead-poisoning, I was not aware until the last twelve months that it produced such a decided effect upon the menstrual function of the uterus. Yet it seems to be a not uncommon sequence, and one which no doubt has been fully recognised, but of which I have been ignorant. It is quite true, in the many cases which I have seen of late, there has been functional disease of the secreting glands, in like manner proving pretty clearly that it is a condition due to blood-poisoning rather than from inhibition of any especial nerve-centres. Still it is a matter of interest and practical importance, for it is not unlikely that lead might be absorbed into the system in various ways: either through drinking-water, leaden combs, or the mere application of lead plasters. There are two well-known places for the manufacture of white lead—viz., at Hollybush-gardens, Whitechapel, and at Hoxton. Here some hundreds of women are employed, and from here my patients are drafted. It seems to be a last resort for these unfortunate creatures, for none of them would seek work at these places if they could find employment elsewhere. In some instances they absorb the lead so rapidly that they are rendered prostrate in a few days, and the majority cannot continue it for more than a month at a time. The baking part of the process seems to be done by women, so they are necessarily exposed to the fumes of this deleterious and deadly agent.

In my experience, it does not affect the nervous supply to the extensors of the forearm or to the muscular coats of the intestines; neither, in many cases, do we find the sulphide of lead along the alveolar margin of the gums, as in the chronic plumbism of painters: so that one must not be taken off his guard by the absence of these well-known signs.

The following three cases of many others are typical, and demonstrate the object of the communication:—

Case 1.—E. S., aged twenty-three, married, with one child, has been employed at the lead works for the past eighteen months at six different times, and upon each occasion the normal menstrual flow has ceased, although when otherwise employed it has come on regularly enough. When admitted under my care, in October last, she was extremely prostrate, and suffered from severe gastric and abdominal cramps, constipation, and vomiting. The urine was slightly albuminous, and the skin of a faint yellow hue. She had not menstruated for three months. On January 27 she left the Asylum in good health.

Case 2.—H. M., aged thirty, married, has always had excellent health until two years ago, when she was first employed at the lead works. Before this time she menstruated quite regularly, but so long as she followed this occupation the menstrual flow ceased. Upon giving it up, which she was compelled on several occasions to do, it returned. She has since died of phthisis.

Case 3.—M.G., a woman of dark complexion, sallow and slightly jaundiced; says that she always had excellent health until she sought employment in the lead works some four years ago. In a short time after this, although quite regular previously, she ceased to menstruate. During these four years she has been afflicted many times in a similar way,—whenever she returned to the same employment.

ON THE

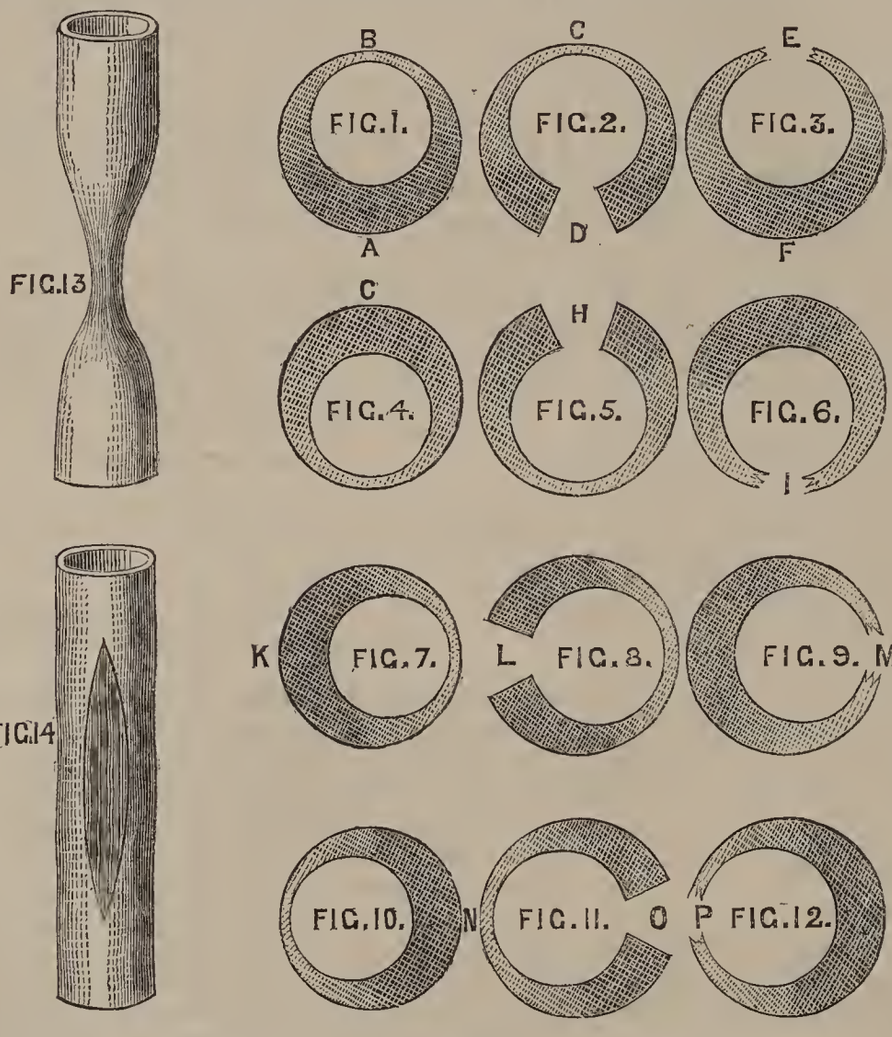
CHOICE OF AN OPERATION FOR STRICTURE OF THE URETHRA.

By W. F. TEEVAN, B.A., F.R.C.S.,
Surgeon to the West London and St. Peter's Hospitals.

If an operation be required for a stricture, which is the best one to perform? The answer to this question has interested and disturbed the minds of surgeons for ages; and in this, as in other matters, fashion has to a certain extent influenced practice, so that not only have different countries at one and the same time exhibited great diversity of procedure, but in each country the most opposite opinions and practices have been contemporaneous. It is my intention to confine my inquiry to those operations practised on strictures pervious to instruments. All such operations may be arranged under one or other of the following heads:—1. *Incision*, which includes internal, external, and subcutaneous urethrotomy; 2. *Laceration*, which embraces "dilatation *forcée*," the so-called "immediate treatment," splitting, rupture, divulsion, and over-distension when carried beyond the stage of true dilatation. Much confusion has been caused in England by the looseness with which the term "dilate" has been used. When an English surgeon talks of "dilating," the process he refers to is really, usually, one of laceration. For instance, when he dilates the prostate in the operation of lithotomy, he tears that organ; and so, when he says he has, by sudden dilatation, enlarged a strictured urethra, he has lacerated the canal. French and American surgeons have clearer ideas as to what the so-called dilatation really is, and the former have remarked that the pseudo-process of dilatation ought to be named "divulsion"; and the latter have pointed out that the instrument which an English surgeon calls a "dilator" ought to be christened "lacerator," and the action effected by the machine "laceration," and not "dilatation."

The standards by which the relative merits of the two methods can be judged are pathology, surgery, and the statistics of the operations themselves. Before proceeding, the ground will be greatly cleared, and an answer to the question rendered more accurate, by inquiring what it is that we really require when we are about to undertake an operation for the

relief of a passable stricture. If reference be made to the diagram of a strictured urethra represented at Fig. 13, it will be observed that the canal has been so altered by disease at one spot that it is contracted and shrivelled: the state is one of atrophy (Mercier), and not hypertrophy, as thought by some. Now, what we require is, to enlarge the diameter of the urethra, where narrowed, so that it shall be of a calibre equal to, or at all events not much less than, that of the healthy part. But how is this increase to be effected? Much in the same way that a tailor enlarges the girth of a pair of breeches. If he discover that there is no spare material to let out, he makes a cut and inserts a new piece of stuff, as much like that of which the breeches are made as he can find. When the urethra is wasted and narrowed, it cannot be enlarged to its natural calibre by letting out a piece of redundant tissue, for there is none to spare, and we must therefore insert a piece. Where is it to come from? If the stricture be completely cut or torn through, and the edges of the wound kept apart, nature will fill up the gap with a piece of new tissue. The French and American surgeons have very clear ideas as to the requirements an operation must fulfil: the former have named the piece wanted the "*pièce d'allongement*," and the latter have happily and aptly christened it the "cicatricial splice."(a) Hence we require a splice which shall, as much as possible, resemble the normal tissue. The cicatricial splice may be made in one of two ways—by cutting or laceration. Pathology teaches us that all cicatrices tend to contract in varying degrees, those which follow burns or lacerations being endowed with a greater degree of contraction than those which result from clean cuts. If a clean cut be made through the stricture, a cicatrix will be obtained, as shown at Fig. 14, oval in shape, and having its axis parallel to that of the urethra. If, on the other hand, the contraction be torn through, there will result an irregular cicatrix, stretching, in some cases, across the urethra, and not having its axis parallel to that of the urethra (see Fig. 15). Inasmuch, therefore, as the cicatrix in Fig. 15 will be followed by more contraction than the one at Fig. 14, it is, then, the less desirable of the two.



Inquiry into the location of stricture teaches that the complaint affects the floor of the urethra to a greater extent than any other part, being sometimes entirely confined to that situation. The diagrams numbered 1, 4, 7, 10, much exaggerated in size for the sake of clearness, represent sections of the urethra as affected in the floor, roof, or either side. The other sections delineate the strictured urethra—firstly, after it has been cut through; secondly, after it has been torn through, —and they show what each operation can achieve in the four separate conditions proposed for trial. It is well known that if an induration be completely divided it will often disappear; hence it is an object to attack a stricture in its stronghold rather than injure the unoffending healthy tissue. Let us take Fig. 1, where the floor is the part affected, and see the results according whether the stricture be cut or torn through. If we cut, we can cut where we like, and consequently the floor can be completely divided, and a wound with cleanly incised edges be produced, as seen at D, Fig. 2, the healthy roof, C, being spared. If the stricture be torn through we cannot control the laceration so as to take the course we wish, for it will follow its own route, and in the case under consideration the urethra will be lacerated, not at the most diseased spot, F, Fig. 3, but it will give way at the roof, E, because it is the healthiest, and therefore the thinnest spot. In Fig. 4 the roof, C, is represented as most affected, and if a knife be used it can be divided at that spot, and a wound made with even edges, as seen at H, Fig. 5; but if a dilator (lacerator) be employed, the urethra will be rent in its most healthy portion, the floor, I, Fig. 6. Supposing the left side of the urethra to be most involved, as viewed at K, Fig. 7, it can be incised at the desired spot, L, Fig. 8; but if laceration be employed, the urethra will give way at its weakest spot, M, Fig. 9. Finally, if the deposit be on the right side, N, Fig. 10, it can be cut where desired, as seen at O, Fig. 11; but if torn, the healthy spot, P, Fig. 12, will give way. There are thus four separate conditions of the disease, any one of which may be met with, in which the knife can attack the diseased spot, whereas the dilator shirks the enemy and tears open the healthy urethra.

It is thus seen that the surgeon who uses a knife knows the situation and length of his incision, whereas he who employs a dilator is entirely ignorant of the site and extent of the

(a) Professor Gouley, of New York.

laceration. The possession of the above knowledge is of the utmost importance; for if an operation be followed by hæmorrhage, the surgeon, who is aware of the exact source of the bleeding, can adopt efficient measures for its arrest. But it may be said, How is a surgeon to know which portion of the urethra is diseased, and, if he did know, how can he so apply the knife as to divide it? By using the "bougie à demi-boule," or a very fine instrument made on the principle of Civiale's extractor for urethral calculi, the exact position of the part most affected can usually be made out, and then divided with a urethrotome which has its knife attached to a corresponding surface. We have now got a step further. We know exactly what we want—"a cicatricial splice,"—and we see that the one we require will be best made by cutting rather than laceration. It will be well now to ascertain whether this exposition is confirmed by experience. It is, as I have stated, a doctrine of pathology that a cicatrix following a laceration is attended by a greater degree of contraction than that resulting from a cut. Now, after an operation for stricture, whether by cutting or laceration, the edges of the wound must be kept well apart by the passage of instruments, and, as a matter of course, there will be contraction inseparable from the healing process; but the great object to be attained is the minimising of the contraction, and this can be done by selecting that operation whose cicatrix is followed by the least contraction—which will be the cutting one. What has surgery to offer in the way of independent and unbiased evidence regarding the effects of cutting and lacerating the healthy urethra? Lithotomy is a common operation: in it the bulbo-membranous urethra is laid open by a clean cut, and no contraction follows the injury; but if the same healthy urethra had been even partially ruptured by violence, a traumatic stricture would have formed.

I will now proceed to statistics. The cutting operation is of ancient origin, but that of splitting is of recent date, and was invented by Mayor, of Lausanne, he being the first surgeon to split a stricture with a wedge. To such an extent did he push his hobby, that he declared that those patients who preferred any other method to his were "poltrons" (*sic*). Mayor's plan, and that of Perrève, were extensively tried in Paris, but were abandoned on account of the mortality attached to the operations. Within a recent period the method has been again revived in Paris by Voillemier, but it has not found favour with French surgeons. Now, it may with truth be said that surgeons know but little of the urinary diseases of the male, except what they have learned from the French; for the exceptions are so few as to constitute the rule. Hence the collective opinions of French surgeons are invested with all the authority of *ex cathedrâ* judgments. The French surgeons object to the splitting operation, on account of its mortality, and prefer internal urethrotomy as a less dangerous procedure. I know that *the operation of internal urethrotomy has been performed upwards of one thousand times with but three deaths;* and there would probably have been only two, had it not been for the crowded state of the Necker Hospital during the Commune. No surgeon, that I am aware of, has ever been able to bring forward such favourable statistics on behalf of the splitting operation; indeed, the deaths after that operation have not, with but few exceptions, been published. Thus, therefore, my inquiry goes to show that if an operation be required for a stricture, that operation ought to be a cutting one. At the present time internal urethrotomy is, *par excellence*, *the* operation in France. In Germany the splitting operation has never taken root. In America both operations have been largely practised, but internal urethrotomy is now supplanting the splitting operation. Professor Mastin and Dr. F. Otis have both given up the splitting method, the former because he was dissatisfied with the results, and the latter on account of the deaths that followed the operation; whereas those gentlemen have had upwards of 500 cases of internal urethrotomy without a death. In Great Britain the splitting operation was largely practised some time ago; but it has lately been abandoned by a large number of hospital surgeons.

In transmitting to the Administrative Committee of the Charity Organisation Society a list of dispensaries established in the metropolis under the regulations of the Local Government Board, the Board intimated that it is not probable any considerable addition will be made to the number of Poor-law dispensaries in the metropolis.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF MALIGNANT TUMOUR OF MEDIASTINUM —SECONDARY DEPOSITS IN KIDNEYS AND ELSEWHERE.

(Under the care of Dr. ANDREW.)

[Notes by VINCENT HARRIS, M.B. Lond., House-Physician.]

E. M., aged thirty-three, a married woman, was admitted into hospital on November 29, 1875. She stated that she had been troubled with excessive swelling of the face and neck, off and on, for just ten weeks before she came to the hospital; previous to this had been fairly healthy, except for a uterine complaint which had been treated a year ago.

State on Admission.—Patient is a pale, but well-nourished woman. Her face, especially underneath the eyes, is swollen and puffy. Her neck is also considerably swollen; the veins are prominent on both sides, more so on the left. Thyroid body is generally enlarged, but the middle lobe to the greatest extent. Veins on upper part of chest are swollen, as also to a less degree behind, on each side of the spinous processes of the dorsal vertebræ. There is no œdema of the arms or legs. Chest somewhat barrel-shaped; respiratory movement and vocal fremitus deficient; dulness over upper part of sternum, and for three inches to the right and two inches to the left of it. No râles. Respiratory murmur scarcely audible in front of chest, except towards bases of lungs. Over the area of dulness the vocal vibrations are absent; the breathing is distant and harsh, but there is no cardiac murmur, although the heart-sounds are heard well, and the second sound is accentuated. The abdomen presents nothing abnormal, save slight enlargement of liver. Has some cough, with very scanty sputum. Functions healthy. Urine 1012, clear, contains no albumen. There is no family history of cancer or tumour.

Patient remained under treatment about six weeks, but very little change took place in her state, and on January 14 she left the hospital at her own wish. A fortnight afterwards she was readmitted, as during the interval she had been much distressed with swelling of the face and difficulty in breathing.

State on Readmission.—Patient cannot lie down in bed. There are now two prominent elevations in front of her chest—one on right side, near the sterno-clavicular articulation; the other, smaller, in the left second interspace, close to the sternum. The skin is somewhat œdematous, but non-adherent, and there are enlarged veins coursing tortuously over the tumours. The lumps are very tender. Over the front of the thorax there are two plexuses of veins on each side, the one going upwards to the neck, the second outwards to the arms. The dulness on percussion has much extended, and now reaches to the ensiform cartilage downwards, and for a considerable distance on each side of sternum; the vocal fremitus is absent, and the heart-sounds are loud, but not altered, over area of dulness. A general sense of impulse, but the tumours are not pulsatile. The left pupil is larger than the right; eyes are sore, and eyelids swollen. Occasionally there is great dyspnœa; no dysphagia; slight cough. In other respects the patient remains just as she was when discharged.

On February 27 the left arm and hand swelled for the first time, followed in a few days by swelling of the right arm and breasts. The latter seemed to contain hard nodules here and there. The dyspnœa increased daily, and death ensued on March 11 with the symptoms of pleuritic effusion.

Autopsy, fifty hours after Death.—Body emaciated; arms very much swollen. Two or three nodules in front of chest, which, when the skin was removed, were shown to be projections of a growth from inside of chest—one was situated on the right side, near the sterno-clavicular articulation; another on the same side, in the second interspace; a third was in the second left interspace. Both breasts enlarged and hardened, with nodules of cancer. There was much pleuritic effusion on the left side, with recent fibrinous deposits on lung; and less so on right side. The mediastinum was occupied by a new growth, hard and yellowish-white, which projected forwards, eroding the sternum slightly, and appearing outside the chest in the situations

mentioned above. The growth involved the whole of the roots of the lungs, and the pericardium in places; the superior cava was obliterated; many nodules of various sizes in lungs. The trachea and œsophagus were not obstructed; some of the supra-clavicular glands were enlarged and hardened slightly, as was also the middle lobe of the thyroid body. Stomach considerably depressed by fluid in pleura. Liver and spleen enlarged and congested; no deposits. In both kidneys there were nodules of new growth, varying in size from a pea to a small walnut, and apparently of similar structure to that of the tumour in the mediastinum and the nodules in the lungs. Heart small and pale. Intestines, uterus, and ovaries normal.

WEST NORFOLK AND LYNN HOSPITAL.

LARGE VAGINAL POLYPUS OCCURRING IN A CHILD TWO YEARS AND A HALF OLD.

(Under the care of Mr. WILSON.)

V. B., aged two years and a half, was admitted on March 20, 1876.

History.—The mother stated that the child had always been delicate. In July of last year she noticed that the child's body began to get larger, and this increased with time. Pain also began to be complained of. About a month ago, a thick yellowish discharge issued from the vagina; this discharge being occasionally tinged with blood, and continuing up to the date of admission. On the evening of the day before admission, whilst the child was in the act of micturating, it suddenly cried out, as if in great pain; and on examining it, she found a large red mass hanging between the thighs, which she thought to be the womb.

Condition on Admission.—The patient, a delicate-looking child, appeared to be in considerable pain. On examination, a lobulated tumour of the size of a small orange, flesh-red in colour for the most part, but here and there mottled with purplish-black, was seen, apparently protruding from the vulva. That it had no connexion with the bladder or rectum was ascertained by examining these respectively with the catheter and finger. On digital examination per vaginam the tumour was found to be attached to the posterior wall of the vagina by a broad base.

Treatment and Progress.—Two hours after admission, the child was put under chloroform, and Mr. Wilson excised the growth, having previously passed a ligature round its base. The child passed a good night. On March 23 (three days after operation) the ligature came away, no hæmorrhage ensuing. The child was discharged on the following day.

A microscopic examination of the tumour showed it to resemble in structure a mucous polypus.

NOTTINGHAM AND MIDLAND EYE INFIRMARY.

REMARKS ON GONORRHŒAL OPHTHALMIA.

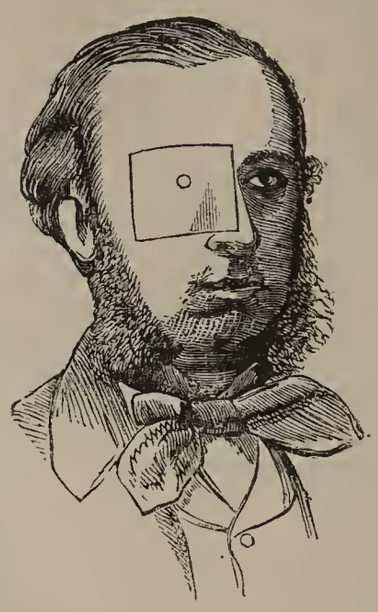
(By Dr. CHARLES BELL TAYLOR.)

I HAVE, within a short space, had under my care six cases of gonorrhœal ophthalmia. In three of these the uninjured eye was accidentally inoculated with the discharge from the one first affected. In none had any likely means been adopted for the protection of the sound eye, although the cases had been, previously to coming under my notice, under the care of eminent practitioners residing in the neighbourhood of the patients' homes.

Considering the fatal nature of this affection, and the frequency with which the eye first attacked is either lost or seriously injured, the protection of the organ which has escaped infection becomes a matter of paramount importance; and I trust you will therefore allow me to call attention to a simple expedient which I have adopted with this end in view for some time past.

The contrivance in question is an ordinary Burgundy pitch plaster, applied as indicated in the woodcut, and provided with a small hole in the centre, through which the patient is enabled to see, and which may be guarded by a small piece of lace or muslin stuck on to the pitch inside. This is a perfect protection, and should be applied the moment the practitioner suspects that the patient is the subject of gonorrhœal ophthalmia.

I am indebted for the idea to an admirable suggestion made by Mr. Buller, of the Moorfields Hospital, who first proposed that the eye should be protected by a piece of india-rubber fixed to the brow, with a watch-glass in the centre—an apparatus which may be obtained of Messrs. Weiss. There is often, however, a little delay in procuring this; and one of my patients, himself a surgeon, lost two days, after he had got it, from some difficulty which arose in securing its adhesion to the brow. As the pitch plaster is always readily procurable, and easily applied, none of these *contre-temps* are likely to occur; and I trust that, by means of your widely circulated journal, those affected with this serious disease may be in future protected from a second inoculation by this simplification of Mr. Buller's apparatus.



While on the subject of gonorrhœal ophthalmia, I may mention that I have found the greatest benefit in some of these cases from a very free division of the external canthus: this enables the surgeon to expose the eyeball, turn the lids inside out, incise chemosed conjunctiva, and freely apply such local remedies as may be indicated. Spasm is also relieved, and the free bleeding occasioned is most beneficial.

TEMPERATURE OF THE SOIL.—Prof. E. Becquerel reported to the Académie des Sciences the result of his observations on this during 1875. He and his father have conducted, during the last ten years, by means of thermo-electric apparatus, observations upon the temperature of the soil, and have found that at a depth of twenty-six metres below the surface it is well-nigh invariable; so that during the ten years there has not been a hundredth part of a degree difference observed, the temperature indicated having been constantly between 12·41° and 12·42° C.—*L'Institut*, March 15.

FORCIBLE DILATATION OF THE FEMALE URETHRA.—Dr. Jewett relates the case of a girl fifteen years of age, who had passed the handle of a crotchet-needle into her bladder four days before he saw her, repeated efforts, however, having been made in vain to get it out. After administering ether, he introduced a No. 16 male sound, and afterwards his index-finger, which, by a rotary motion, was carried in to the base of the second phalanx. The bladder was quite void of urine, and the foreign body could be felt with both its extremities embedded in the wall of the bladder. While endeavouring to dislodge it, Dr. Jewett felt a rupture of the meatus suddenly take place; after which, he was able to move his finger easily. The body was then dislodged by the finger, and thrust through the meatus by the contraction of the bladder. The patient was treated by opiates and fomentations, and, a fortnight after the operation, was reported as not suffering at all. Incontinence had ceased immediately after the dilatation.—*Boston Med. and Surg. Jour.*, January 27.

A NEW POISON.—M. Jousset laid before the Biological Society a specimen of a new poison extracted from the insecticide the *Pyrethrum carneum*. The insect-killing power of this plant has been wrongfully attributed to its obstructing the spiracles, just like any other insect-powder. M. Jousset exhibited to the Society insects which had been placed for ten hours in various inert vegetable powders, and pointed out that they exhibited no morbid phenomena. Others which had been placed only for an hour in the *pyrethrum* were already almost dead, and exhibited decided convulsive phenomena. If the powder has been previously treated with alcohol it loses its insecticide power and the alcohol becomes poisonous. The poison is not due to the essential oil of the plant, as this does not exert any baneful influence on insects; but the poisonous property is contained in a concentrated state in the crystallised substance which he presented to the Society, and which he believes to be of the nature of an alkaloid.—*Union Méd.*, March 18.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, APRIL 1, 1876.

THE ADVERTISING OF MEDICAL WORKS.

Among the questions which chronically agitate the mind of the profession, the one as to the advertising of medical books in lay newspapers perhaps crops up most frequently. Although not a question of much vital importance to the profession in general, it is one of some moment as involving in some degree our position in the eyes of the public and of our professional brethren. It is argued by those who are opposed to the practice of advertising in this way, that such a course tends to make the calling of a physician or surgeon a trade, rather than a profession. There can, indeed, be little doubt that many books are written solely with the object of advertising the name of the author in connexion with the subject treated of. As the general voice of the profession and of the public is opposed to the use of the advertisement columns of the *Times* or other lay journals by medical men for the insertion of their "cards," after the manner of tradesmen, and, we believe, of some of our professional brethren in Australia and America, the doctor who wishes to make his name known writes a book, or hires some poor hack to write one for him, and then advertises the work and himself together. It is argued, with much show of truth, that were not notoriety the object of the advertiser, he would confine the announcement of his productions to the pages of the medical journals, where they would be seen by almost all who were likely to purchase the works; the public in general being very small patronisers of purely medical books. To such arguments as this it is difficult to find any satisfactory reply. It can scarcely be denied that in many instances publicity is the only object held in view by medical advertisers. The question comes, however, whether it is unprofessional to seek such publicity. The barrister who is engaged on a great trial obtains a gratuitous advertisement in the law reports of the daily papers, and if he be successful in gaining his cause such an advertisement may be worth many briefs to him. In all ranks and walks of life advertisement is the order of the day. Every man's object is to get before his neighbour, and, whatever his calling, he is anxious to inform the public that his knowledge of that calling is complete. To this end various means are adopted; and that most in favour amongst the members of our own profession has been, as we have said, to write a book, and get it advertised extensively in the lay press. Another very favourite form of advertisement has been by means of special hospitals. With this, however, we are not concerned just now, our object being to consider the resolutions, condemnatory of the practice of advertising medical works in lay papers, which were passed at a recent meeting of the Metropolitan Counties Branch of the British Medical Association. Any resolutions passed by that body ought to be deserving of consideration,—for the Metropolitan Counties Branch is a very large one, numbering, we believe, over five hundred members; and as its list, probably, includes a very considerable number of English medical authors, a decision coming from it should carry weight. The degree of importance and weight attaching, however, to the resolutions passed by the meeting alluded to, must depend somewhat on its size and quality; and we have not learned that it was largely attended, nor that many authors of high reputation and position were present. And it is further to be remarked that not all the metropolitan members of the British Medical Association are members of the Metropolitan Counties Branch. However, the resolutions referred to are as follows:—

1. That advertising in the non-medical press medical works addressed exclusively to medical readers, and fitted only to interest and edify them, is founded on no plea of either necessity or expediency.

2. That by allowing their works to be thus advertised, men of professional eminence lend their countenance to a system of ill-disguised puffery, of which they themselves, in common with the overwhelming majority of their medical brethren, heartily disapprove, and give a fictitious value to works advertised for the express purpose of obtaining notoriety, and which are of a different character from those of which they are the authors.

3. That this Branch is of opinion that the authors of medical books intended for medical readers should steadfastly discourage the advertising of their works in any other than medical papers.

The terms of these resolutions are very explicit and precise, and if the principles laid down by them are adopted by the profession generally, there will be an end of medical advertising in lay papers. Those who have sought by this means to make for themselves a reputation and a name will be compelled to devise some other channel of publicity, or to remain content with the fame they may gain among their professional brethren. A reputation gained by advertisement is often but a deceptive one to the public, who are led to look upon a man as eminent in his profession whose only claim to the distinction lies in the fact that he has persistently and steadily puffed himself by frequent advertising of his works in largely circulated papers. To such fictitious reputations as these a heavy blow will be dealt when the practice of advertising in non-medical papers shall have ceased to exist among all respectable members of the profession, and the attainment of such fame will be rendered almost impossible. We cannot but agree with the first resolution, which says that it is inexpedient to advertise purely medical works in non-medical papers. The titles of many medical works are not such as should be placed before the members of the family circle, and we confess to not liking to see a daily paper containing a column of medical announce-

ments in the hands of the younger members, male or female, of a family. There are, then, several reasons why medical men should confine the announcement of their works to the pages of professional journals, and we shall be glad to see the principles embodied in the resolutions we have quoted sanctioned by the good sense of the general body of the profession.

THE OPERATIVE TREATMENT OF PLEURITIC EXUDATIONS.

An important contribution to this subject appears in the recent volume of the "Berlin Charité Hospital Reports" (*Charité-Annalen*, edited by Dr. Mehlhausen; Hirschwald's, Berlin, 1876, pp. 752). It is from the pen of Dr. Ewald, and is founded on the observation of 250 cases which were admitted into the medical clinical wards of Professor Frerichs during a period of fifteen years, from June 1, 1860, to June 1, 1875. This question is raised less with a view to the recording of individual cases of serous effusion which have been successfully aspirated, or of purulent cases which have been successfully and freely opened, but rather in the view of laying before the profession the results of a large number of cases treated by the same individual under similar circumstances and surroundings, and during a given period of years. Unfortunately, such statistics are comparatively rare, though a considerable number of single cases are scattered throughout the extensive literature bearing on this subject. Dr. Ewald sets out with the assumption "that there are cases in which the timely and artificial evacuation of the collected fluid alone can save from an either directly or indirectly unfavourable termination."

It is in the hope of contributing some reliable data as to the "when" and the "how" this interference shall be most aptly exercised that the author has undertaken a publication, which we shall now proceed to consider. Of the 250 cases, 204 were cases of serous effusion. We will take these first. It appears that during the years 1860-70 no cases of serous effusion were tapped, but were treated on general principles. The figures do not include some complicated cases in which the effusion was due either to tuberculosis or cancer, such cases being quite outside the question of surgical treatment. He deducts, also, some of the slighter cases, about which there never was any question of mechanical interference; and in this way the numbers are reduced to 143 cases with four deaths, during the period of fifteen years. As before said, serous effusions were not tapped previous to the year 1870, but between this date and 1875 twenty-six of the cases were tapped, all recovering. This small proportion of operated cases will at once show that only in certain cases was interference considered desirable; and, indeed, the following are his two chief indications:—First, danger to life from pressure on vital organs; secondly, the apparent uselessness of drugs, if, after a three weeks' trial, they have failed to carry off the effusion. Concerning the first indication authors are fairly unanimous, but less so with regard to the second, the chief differences of opinion being as to the re-collection of fluid after tapping, its tendency to become purulent, and the actual capability of the lung to expand. As regards the re-collection of fluid after tapping, this our author considers as dependent on the time at which the tapping is performed: if it be done while the pleura has a natural tendency to exudation, tapping can in no way modify it—may possibly even increase it; for, as Wintrich says, tapping only draws off a product of disease, and not the disease itself. The indication, therefore, is to wait until physical examination determines the height of the disease, as judged by a standstill of the previously increasing dulness, which generally takes place in the third or fourth week. The tendency to become purulent is generally ascribed to two chief causes—first, directly to the operation; and, secondly, to the determining influence of the draining away of the fluid. Dr. Ewald, however, takes another view. Of thirty-five cases, nine became purulent, but of these, four times the fluid was turbid from the first, in one a canula was purposely left in the chest, and in the remaining four the operation was done much earlier than he now advises. The other cases, twenty-six in number, were tapped after the fourth week, and all continued serous throughout. In face of these facts, he considers himself justified in formulating that tapping does not tend to the conversion of a serous into a purulent pleurisy, provided due care be exercised in the time and mode of operating, the proper disinfection of the instruments used, and in carefully excluding air from the chest.

There can be no doubt, as Trousseau has shown, that certain exudations tend of themselves to become purulent in time; and, whether they be tapped or not, will, and do, become purulent. It is especially the case in secondary pleurisies: and so, if from necessity the fluid has been drawn off early, while still serous, its becoming purulent at a later stage must be ascribed rather to a natural pathological process than to the operation of thoracentesis. Next comes the question, After how long will a compressed lung re-expand? Authors vary on this point, and some exceptional cases, no doubt, show that even after a six months' compression the lung may unfold and regain its normal proportions. As a rule, however, one may state eight weeks as the average time; the date of the first tapping and the amount of the evacuated fluid being factors of no small moment in the estimation of this point. Dr. Ewald lays considerable stress on the mode of operating: he disapproves of the so-called suction instruments, as uncertain and unequal in action. As a rule, it is best to trust to the pressure from within, and only in some rare cases, when the fluid is viscid or thick, to apply a gentle suction. Deep inspirations, by expanding the lung, will generally force out as much of the fluid as it is wise or proper to withdraw; and it not infrequently happens, should any be left behind, that it is shortly reabsorbed. He has only had one case in which the albuminous expectoration described by Terillon was present.

Passing on to the consideration of purulent effusions, Dr. Ewald begins by reaffirming his opinion that these cases, which seem to have become purulent in consequence of tapping, really contained within themselves the elements of purulency. He especially cautions us to shake our patient before making the trial puncture, lest, owing to position, the solid elements of the pus may have gravitated to the lowest part of the cavity, leaving only a serous supernatant fluid, which would infallibly mislead us if we trusted to it. He considers it all-important to find out as early as possible the real nature of the exudation, and counsels the use of a hypodermic or similar syringe for exploration in all cases. "We have punctured," says he, "in hundreds of cases, and have gone into both liver and lung—sometimes on purpose, sometimes accidentally,—and have never once seen the slightest harm result therefrom." Great stress is laid on the necessity for absolute cleanliness and the desirability of soaking one's needle in carbolic acid solution just before using it. As to the period at which pus is formed, he gives one case where it was found on the fifth day of the illness; another on the seventh day. Then, as to treatment, some interesting statistics are given, showing that out of forty-six cases twenty-six were freely opened, with twelve deaths (46·15 per cent.); nine were aspirated, with seven deaths (77·77 per cent.); and eleven were treated therapeutically, with seven deaths (63·63 per cent.). The first two series included the *empyemata necessitatis* (spontaneously opened empyemata), which were naturally not included in the third series. Or, from another point of view, excluding the *empyemata necessitatis*, he gives twenty-one cases freely opened, with ten deaths (47·74 per cent.); eight cases aspirated, with six deaths (75·00 per cent.); and seventeen

cases (including the *empyemata necessitatis*) treated medicinally, with ten deaths (58·82 per cent.). These figures speak for themselves, and it will be at once inferred that the author strongly advocates a free incision so soon as the diagnosis of pus is established.

Concerning the duration of the disease, he points out that the cases which were operated on had an average duration of six to nine months, as against five to six of the non-operated ones; and that the mortality increases in ratio direct with the length of time which is allowed to elapse between the commencement of the disease and its surgical treatment; also, that in young patients recovery is more frequent and more complete than in older ones.

Aspiration of the chest is not considered satisfactory, because, under ordinary circumstances, it is not possible to get rid of all the pus collected unless air be admitted; and partial evacuation is more or less useless, for the same reason that the partial evacuation of an external abscess would be considered insufficient. The author, as the result of his own observations, then, considers that a free opening into the chest, as soon as the diagnosis is definitely made, offers the best chance for the patient's recovery.

A free exit for the pus must be secured; and he advises that, if other means fail, Roser's method of resecting a portion of rib should be adopted. The chest-cavity at first is to be washed out twice a day, and afterwards once a day, with such solutions (carbolic acid, Condy's fluid, iodine, iodide of potassium, etc.) as circumstances may suggest, and such constitutional remedies as may seem indicated are to be prescribed.

From what has been said, therefore, it will be seen that there is a wide difference in the results of treatment in these two diseases, and it is to be regretted that they are not alike favourable. Perhaps some will be disappointed in the conclusions which have been drawn concerning purulent effusion into the chest, as to its mortality under any method of treatment, but especially when treated by the method of aspiration. Still it is a fact that only about 7 per cent. recover, and some of these even are doubtful as to their final condition. The cases in which the chest is freely opened do best, and even then only about one-half recover.

IMBECILES AND COUNTY LUNATIC ASYLUMS.

The crowded state of our lunatic asylums, and their inadequacy to accommodate all the patients that it is desirable to place under restraint, have created a very general impression that lunacy is largely on the increase. It is true that the number of inmates of our lunatic asylums has increased largely of late years, but it must not be therefore hastily concluded that the percentage of lunatics has increased to an extent corresponding with the increased demand for asylum accommodation.

The reports of the Medical Superintendents of Hanwell and Colney Hatch Asylums, which have just reached us, suggest another explanation—viz., that many aged and imbecile paupers who formerly, on economical grounds, were cared for in workhouse infirmaries, have, since the legislative enactment which has relieved the ratepayers of part of the cost of maintenance of pauper lunatics, been transferred to the Asylums. In his report for 1875, Mr. J. Peeke Richards, Medical Superintendent of the Female Department at Hanwell, states that although last year he strongly deprecated the practice of sending extremely aged and decrepid people to the Asylum, many such cases continue to be sent, as is proved by the fact that during the year sixteen women were admitted over sixty years of age, six over seventy, and two over eighty. "These," he remarks, "can hardly be cases requiring asylum treatment, as all that is requisite for them is kind treatment and nursing, which assuredly could be provided for them just as readily at some place nearer their homes, instead of subjecting them to the trying ordeal of a long and tedious journey; and they certainly fill up beds which might be occupied by more curable cases." There certainly appears to have been some lack of discretion on the part of medical officers of workhouses in selecting cases for the Asylum, as the majority of cases admitted on the female side at Hanwell were brought there in extremely feeble health and debilitated condition; indeed, it was quite the exception for Mr. Richards to be able to certify, in the return required to be sent to the Commissioners in Lunacy, as to the bodily health of recently admitted patients being "good." On admission, twenty-nine were suffering from bronchitis, four from inflammation of the lungs, nine from pulmonary consumption, one from scurvy, and seventeen from disease of the heart. In the male department of the same Asylum twenty-four patients were admitted whose ages varied from sixty to eighty-five, and many were on admission found to be suffering from consumption, inflammation of the lungs and pleuræ, and other severe organic diseases. Five of the phthisical patients were in the last stage of the malady, and died within nine weeks of their admission. Several of the aged patients were bedridden, and evidently had only a week or two to live. Dr. Rayner, the Medical Superintendent of the Male Department, says that it is difficult to see the advantage which is to be gained by the transfer of such cases as these from the workhouse to an asylum. He is frequently at a loss to recognise, in the helpless, childish, bedridden, and often moribund old man, the dangerous and violent lunatic described in the certificate under the head of "Facts indicating Insanity," communicated to the medical man by the nurse or attendant on the patient. His experience is that in a large majority of such cases careful nursing and suitable diet restore them to fair health, leaving only the childish imbecility of old age. Dr. Edgar Sheppard also speaks very strongly on this question, and in his annual report, just issued, says, "The mortality would be much less considerable if (as I have pointed out on many previous occasions) more care were exercised by the workhouse medical authorities in sanctioning the removal from their infirmaries of subjects hopelessly feeble and impaired. Not a few are brought every year, at great risk and peril, merely that they may die with us, and this they occasionally do within a few days of their admission. So, also, I must in duty take notice of cases of senile dementia. It is hard upon garrulous and fussy old age that it should be so dealt with, and that a condition to which the best of us may be reduced after a long life of perfect mental integrity should be made to involve the dyeing of the family escutcheon with the opprobrium of insanity. This procedure is a grave cause of offence to many sons and daughters, and attaches to the poor-law machinery much unnecessary disrepute." Mr. Marshall, Medical Superintendent of the Female Department at Colney Hatch, also states that many of the patients admitted on his side of the house are very advanced in years, and very infirm, and require hospital treatment rather than the attention and watchfulness accorded to patients in a lunatic asylum.

We have referred to the reports of the above-named medical superintendents of asylums at some length, as the subject is one of great public importance. There must be a great demand for more asylums if their wards are to be filled by aged and bedridden imbeciles. Such are not suitable cases for asylum treatment—they can be cared for equally well in properly managed workhouse infirmaries; and unless the practice of sending old people to the asylums is resorted to less frequently, we think that the Commissioners in Lunacy will be obliged to issue an instruction to workhouse medical officers, recommending them to use more discretion in transferring imbecile patients from workhouses to lunatic asylums.

THE WEEK.

TOPICS OF THE DAY.

The sad results of the recent outbreak of typhoid fever at Eagley have not yet terminated. Last week Dr. Sergeant reported two more deaths from this cause, making, up to the present time, seventeen in all. Alice Bentley, aged sixteen years, died on the 21st ult., her illness having commenced on February 3, with not very severe symptoms. She suffered from two relapses, each of which increased in severity. Eight out of ten in the same family were affected; the two who escaped had not partaken of the milk. The other case was that of a female on a visit to Bolton. She drank some of the milk, after a few days suffered from the fever, and gradually sank until the 18th ult., when she died.

The Registrar of Draper's Town, County Londonderry, states, in his return for the last quarter of the year 1875, that he had to register a death occasioned by drinking ether, which, he remarks, has been rather extensively made use of in that locality for many years, notwithstanding great attempts made by the clergy and others of influence in the neighbourhood to stop the practice. The person referred to had been drinking, it was stated, and had not taken food; on the evening of his death he partook of a draught of ether with two companions, and never spoke afterwards.

We were compelled last week to record a case of disgraceful treatment experienced by an unfortunate lunatic at the hands of her brother, a surgeon near Nottingham, who has been sentenced to three months' imprisonment, and we have now to notice a shocking instance of neglect which has occurred in Suffolk. The Deputy Coroner for Suffolk last week held an inquest, at Blyford, near Aylesbury, on the body of Sarah Miller, aged fifty-three years, wife of Thomas Corne Miller, M.R.C.S., late Assistant-Surgeon in the Royal Navy. Deceased and her husband had lived at Wenhaston about a fortnight, Mr. Miller practising as a surgeon in that place and at Wrentham. On the 13th ult. he left home to see patients, and did not return until the 21st. He left his wife without money or food, and the only furniture in the cottage consisted of two chairs, there being no bedding of any kind. She had been suffering from diabetes, and in her wretched plight was furnished with food by the landlord of the cottage, who would not ask her to his house because of her filthy condition. She would not consent to go into the Union. One evening she was found lying on the floor in a corner of the room, most scantily clad, wearing neither flannel nor body-linen, and whilst a fire was being lighted she died. Deceased was a woman of very intemperate habits. The jury returned a verdict of death from exposure to cold, and censured the conduct of her husband.

The determination of the Committee of the London Hospital to form a "Queen's Fund," after the donation received from her Majesty, has proved a wise one, and, amongst other sums contributed, the Goldsmiths' Company have presented the handsome amount of £1000.

The Registrar-General's annual summary of births, deaths, and causes of deaths in London and other large cities for 1875 has just been made public. We are again informed that London is still growing; its estimated population in the middle of the year was 3,445,160. The increase on the numbers in the previous year was 44,459. There was a continual addition to the population by births, and a continual diminution by deaths; and the registered births exceeded the deaths by 41,358. The births of males exceeded the births of females by 2477, but, on the other hand, the deaths of males exceeded the deaths of females by 2321, thus to some extent redressing the inequality at birth. It is therefore evident that if there is any great inequality in the living population of the two sexes, it is due to the movements of migration. The estimated increase of population after the Census of 1871 was 190,900, so that the density of population, then expressed by forty-two persons to an acre, has risen to forty-four persons to an acre. The mortality in the year was at the rate of 23·7 to 1000 living, which is higher by 1·2 than in the preceding year, and higher than the average of the preceding five years. The increase was very much due to the combination of epidemics of scarlet fever and whooping-cough. Mesenteric disease also increased, and bronchitis and pneumonia were raised above the average by the weeks of very low temperature. It is worthy of remark that the number of deaths to be dealt with in the year 1840 was 46,281, while in the year 1875 the number was 81,513—both being average years,—and this is mainly due to increase of population, for the mortality was at the rate of 25·0 in the first, and 23·7 in the last year. The Registrar-General has, fortunately, been able to induce the enlightened authorities of more than twenty great cities in India, Europe, and America to supply him with weekly returns. The only cities of great States now in default are Stockholm (this defect is now being supplied), St. Petersburg, and Moscow. In the year under notice the mortality was lowest in Philadelphia and Christiania (23), and highest in Munich (37·4). Cholera augmented the mortality in Calcutta, Bombay, and Madras; diphtheria and typhus were very fatal in Berlin, typhus in Munich, small-pox in Vienna, fever in Rome and Naples, diphtheria and small-pox in New York and Brooklyn, and scarlet fever in Philadelphia. During the year no less than 529,752 metric tons of water were pumped into 518,558 houses and factories in London daily, the great stream flowing from all sources at the rate of 368 tons a minute; and it is a noticeable fact that in rainless weeks the amount of water sent in through the arterial pipes of London nearly corresponds in amount with the venous fluid carried away by the sewers during the same period.

Although he had attained the goodly age of eighty-six years, we regret to have to announce the death of Sir John William Fisher, many years Surgeon-in-Chief to the Metropolitan Police Force. Sir John, who was a son of the late Mr. Peter Fisher, of Perth, N.B., was born in the year 1789, and became a Member of the Royal College of Surgeons in 1809. He was appointed Surgeon to the old Bow-street Patrol in 1821, and was promoted to the post of Chief Surgeon on the establishment of the Police Force in its present shape by Sir Robert Peel. He received the honour of knighthood in 1858, and retired on a pension a few years ago.

Dr. Cornelius Fox, Medical Officer of Health for East, Central, and South Essex, delivered a lecture last week at the Essex and Chelmsford Museum on "The Impurities in the Air that we Breathe and in the Water which we Drink." In the course of his address, which recapitulated all the arguments against carelessness in ventilation and defective water-supply, Dr. Fox stated that amongst the principal diseases produced by impurities of air and water, typhoid fever, in this country alone, annually affected 140,000 persons, of whom 15,000 succumbed to its disastrous results.

The deaths by violence in London annually attain such enormous proportions, that it is inconceivable that legislatory powers can devise no method for reducing the number. Thus, we find that in the year 1875 no less than 231 men, women, and children died of injuries by horses and vehicles in the public thoroughfares. This is the highest number yet recorded in one year. The vans, waggons, and drags killed 82, carts 55, cabs 39, omnibuses 18, carriages 15, and horses 11. Tramcars would appear to be more carefully worked, as they contributed only 9 victims, against 14 in 1874 and 17 in 1873. The dangerous character of vans, waggons, and carts is no doubt aggravated from their being unfitted with efficient

brakes to assist in checking their impetus. Some of the victims were probably infirm, and a few might have been intoxicated, but this was not the case with the majority. The numbers injured reported to the police, exclusive of 93 killed on the spot, were 2926. In addition to this distressing return of accidents, there were 2621 violent deaths recorded from other causes. Homicide, it is satisfactory to note, is declining; the average annual number in the ten preceding years was 124, whereas the deaths from this cause in the last two years were 97 and 70. The 298 deaths from suicide are the average number; they were much less frequent in October, November, and December than in the first three months of the year. The chief increase was in the deaths from negligence and accident. Accidental deaths by poison were below, by drowning above, the average. The deaths by suffocation have recently shown a remarkable increase; the annual numbers were on an average 497 during the six years 1865-70; in the last four years the numbers were 496, 534, 540, and 555. This increase, upon which we very recently commented, deserves the strict attention of coroners. Nearly all the victims were children, and the bulk of the cases occurred on Saturday nights.

The Metropolitan Asylums District Board has prepared and presented a report of the proceedings of the managers for the year 1875. Its able chairman, Dr. Brewer, states that a period of five years has elapsed since a similar document was submitted; he has therefore prefixed to the present report a short summary of the principal events which characterised the four preceding years. The subject of the provision of additional accommodation for imbecile patients has continued to engage the serious attention of the managers. It is also stated that the great extent of the accommodation provided for the treatment of infectious diseases, and the large number of patients of one class or another generally under their care, render the statistics of this Board of singular value for tracing the ebb and flow of epidemics, and the extent of their prevalence in particular localities—a fact which is fully recognised by the Registrar-General's Department, to whom weekly communications are made, and by which means defective sanitary arrangements are often indicated. Small-pox is shown to have decreased so much during the year that the managers were able to dispense for a time with the use of the Homerton Hospital for this disease; and eventually, on the great increase of scarlet fever, it was utilised as a temporary scarlet-fever hospital. The managers have been furnished by the Local Government Board with regulations for the management of the asylums and hospitals, and these, with some modifications suggested by experience, are being carried out in the various institutions. The report is very satisfactory, as showing the careful manner in which the numerous details are handled by the managers entrusted with the onerous duties committed to their charge.

Dr. F. N. Macnamara, Surgeon to the Westminster Hospital, whose name is connected with the establishment of the Campbell Medical School and Hospital, was, on his recent retirement from the post he held at the Medical College at Calcutta, presented by the graduates and students with an address, expressing their sorrow at the prospect of his departure from India. His name is to be preserved in the College by the foundation of a chemical prize.

The periodical assessment of the rentals of St. Thomas's Hospital has recently been compiled. Its annual income is £42,500, and, deriving its revenues mainly from ground-rents, the Hospital will, in course of time, as the leases fall in, be almost as wealthy as the sister-foundations of Guy's and St. Bartholomew's. To this yearly income the districts of Hackney and Southwark contribute £5500 and £9000 respectively; the City yields its share of nearly £9000, and Wapping £1000. The country rentals produce a total that falls little short of £17,000; to which may be added £850 from investments in the public funds, Grand Junction Canal Shares, and similar stock, together with a few quit-rents payable to the governors as lords of certain manors, and various gifts. Some of the last-named date from very early times; they include, among others, sundry small sums paid every year to the Hospital by the most important of the London companies. The country rentals are derived from leases of lands situated in Hampshire, Kent, Hertfordshire, Derbyshire, Yorkshire, Wiltshire, Cambridgeshire, Essex, Berkshire, Buckinghamshire, and Middlesex.

On Saturday last the improvement and decoration of the "local habitation" of the Royal College of Physicians was completed by the addition of the three statues from the chisel of Mr. H. Weeks, R.A. The central niche, immediately over the entrance-door, is of right occupied by Linacre, the founder and first President of the College. In the niche on his left hand stands Harvey, pre-eminent to all time as a physiologist and the discoverer of the circulation of the blood,—and, moreover, a benefactor to the College, as well as to mankind; while Sydenham, the great practical teacher—the English Galen—fills the niche to the right of Linacre. The statues do credit to the reputation of the artist; and the College may be congratulated on their having thus done honour to the memory of three English physicians of world-wide note and fame.

Many of our readers will be glad to know that Messrs. Barraud and Jerrard, of Gloucester-place, Portman-square, can supply an admirable *carte-de-visite* portrait of the late Dr. Parkes; it is an excellent and faithful likeness, though, perhaps, some may think that it represents almost too truly his look of delicate health. The same well-known firm have also lately published a "speaking likeness" of Sir William Gull, in cabinet and *carte-de-visite* sizes.

The small-pox continues to be very severe at Bombay. On Monday, February 28, forty deaths were registered from it—the highest number yet recorded in one day. Two hospitals were in course of building, and the vaccination stations were crowded.

DR. CRICHTON BROWNE.

On the 23rd ult., the following memorial was presented by the present acting staff of the West Riding Asylum to Dr. Crichton Browne, whose appointment to the office of Lord Chancellor's Visitor of Chancery Lunatics has necessitated his withdrawal from the Medical Directorship of that institution. The memorial is couched in the following terms:—

"*To J. Crichton Browne, Esq., M.D., F.R.S.E., Lord Chancellor's Visitor of Chancery Lunatics; late Medical Director of the West Riding Lunatic Asylum.*

"We, the undersigned, being members of the present working staff of the West Riding Lunatic Asylum, cordially unite in expressing to you our congratulations on your appointment to the distinguished office of Lord Chancellor's Visitor of Lunatics.

"We feel assured that the value of this warm expression of our goodwill must be greatly enhanced by the consideration that we above all others will feel most directly and personally the loss which this institution will sustain by your promotion.

"Not a few of us have been officially connected with this Asylum during the whole term of your office as Medical Director, and many of us have been led to offer our services to the institution on account of your great social and professional reputation, and on account of the unrivalled position to which it has been raised by the exercise of your great administrative ability. But whatever may be the extent of our connexion with the West Riding Asylum, we are agreed that while the present condition of the institution is the best evidence of the wisdom and energy which have characterised your Directorship, the unqualified admiration and personal regard of every member of the body to which we belong are both the direct result and the fittest recognition of the unvarying courtesy which has characterised all your intercourse with your subordinates.

"We hope that it is unnecessary for us to express in words

how devotedly we have been attached to you; how much in our several capacities we have prized the privilege of acting under your direction; how profoundly we have benefited by your tuition; and how fully we share with you the natural sense of satisfaction that a career, uninterruptedly successful, has culminated in the widest public recognition of your eminent abilities.

"We trust that this modest memorial, to which your own judgment has limited us, will possess a certain intrinsic value, not because it is an adequate expression of our feelings towards you, but because it has emanated from a large body of men and women who, having during the past ten years had constant opportunities of estimating your worth, profess themselves second to none in the cordial appreciation of your many good qualities. So confident are we of the sincerity of these professions of admiration and esteem that we can express no better wish towards you than that in the exalted public and social position which you are about to occupy you may always be surrounded by friends as warmly devoted to your interests, as keenly appreciative of your native generosity, and as grateful for the benefits you have conferred upon them, as those whom you leave behind you at the West Riding Asylum."

The address has been beautifully illuminated on vellum, the style of art being the purest Renaissauce; and the design having been originated and carried out by Mr. Way, of Wellington-street. The siguatures number nearly 200, and the whole work constitutes one of the finest pieces of illumination and binding which has ever been executed in this country. After a banquet, in which every member of the present staff of the Asylum participated, several appropriate toasts were proposed. The presentation was made by Dr. Merson, Deputy Medical Director; and after Dr. Crichton Browne had responded, he proposed the health of his successor, Dr. Major. Dr. Lawson proposed "The Scientific and Literary Friends of the Asylum"—a toast which was responded to by Mr. Ernest Hart. The memorial and the euthusiasm of the proceedings afford gratifying evidence of the profound respect entertained towards Dr. Browne by those with whom he has been long and intimately associated.

THE CONTAGIOUS DISEASES AT LEEDS.

More with the view of recording what actually takes place (having any bearing on the profession), than from any sympathy with the doings of the doubtless well-intentioned but unreasonable leaders of the opposition to the Contagious Diseases Acts, we have to notice the proceedings of a meeting held on the 17th ult. at Leeds, to bring about the repeal of these particularly useful and much required laws. The (by this time well known) oppouents to the Acts were of course present, supported by a new recruit, in the shape of Mr. Joseph Arch. The speeches were, as usual, garnished with the stereotyped invectives against immoral legislation. Mr. Stansfeld appealed, as is his wont, to the working population of the country, and warned them that "it might be that in their ears had been whispered the new doctrine of the sham scientific men of our time, making national provision for the flesh and the lust thereof." We are agreeably surprised to find from his speech that Dr. Nevins' figures afforded, upon this occasion, only negative support to the movement; thus, he stated that he had been favoured with returns from the constables of the large towns and seaports in Great Britain and Ireland, giving the number of prostitutes in each when these Acts were passed, and the number in the present year. In all the towns to which these Acts did *not* apply, the number of prostitutes had been reduced proportionately from 100 to 57; and in those to which the law *was* applicable, from 100 to 54—an unwilling admission that, at any rate, the Acts are beginuing to work for good, even if the results are as yet only small. There would really seem to be some inconsistency on the part of these thick-and-thin opponents of the Acts in "stumping the country" up in the North, where few, if any, of their hearers can have had the opportunity afforded them of seeing the actual working of the laws; and the fiery appeals against a very useful piece of legislation are addressed to meetings whose knowledge of the subject is entirely derived from the men who are striving their utmost to overthrow it. To the sensible and dispassionate observer we should say, Of what value are "resolutions" passed by crowded meetings, acquainted with only one side of the question—the side which is blindly antagonistic? Meanwhile, it pleases the magnates who parade themselves at these gatherings; it enables men of Mr. Joseph Arch's calibre to drag in his "mission"—the advancement in status of the rural labourer; and it does not in the slightest degree affect the main point at issue.

MR. EDWARD GIBSON'S "MEDICAL PRACTITIONERS" BILL.

This Bill, which is brought in by Mr. Gibson, the member for Dublin University, in conjunction with Dr. Cameron, Mr. Mulholland, and Dr. Ward, is to enable legally qualified medical practitioners to hold certain public medical appointments, and to amend the Medical Act as regards the registration of certain qualifications. The public medical appointments specially meant are the County Infirmaries of Ireland, the surgeoncies to which, by an Act of George III. (36 Geo. III., cap. 9, 1795), can be held only by those who have obtained letters testimonial of the Royal College of Surgeons in Ireland. The qualifications which it is purposed to make registrable are the degree of Bachelor of Surgery and the diploma in State Medicine of any University in the United Kingdom legally authorised to confer such degree or diploma. We believe that the Royal College of Surgeons in Ireland is about to petition against the Bill—a proceeding which we cannot but regard as ill-advised and injudicious; for the maintenance of a monopoly such as that mentioned above is utterly opposed to the spirit of the times, and must react detrimentally on the College. On the other hand, the Bill will receive the hearty support of the University of Dublin, the Queen's University in Ireland, and the King and Queen's College of Physicians, except so far as relates to the registratiou of diplomas in State Medicine. The objections to this are succinctly stated by the College of Physicians in a letter from the Registrar, approved by the College and addressed to the promoters of the Bill and to the President of the General Medical Council. The College are of opinion that the diploma should be regarded as a high honour, held by men who are already fully qualified to register as medical practitioners, and that consequently there is no occasion for its registration. They further contemplate the possibility of the diploma being, in time to come, granted to laymen, or to those who have not received a perfect medical education and training, in which event the registered diploma might be used improperly as a means of obtaining medical practice. In a resolution accompanying the Registrar's letter, it is suggested that all words relating to the diploma in State Medicine in the third clause of the Bill and in its preamble should be omitted.

THE MIDWIFERY LICENCE OF THE ROYAL COLLEGE OF SURGEONS.

Looked at from the position taken by the Council of the Royal College of Surgeons, the state of things affecting the examinations for their Certificate of Qualification in Midwifery has not improved since we drew attention to the subject last week. Indeed, the Board of Examiners in Midwifery can now hardly be said to exist, as of its four members only one (the chairman) remains. We thought last week that of the other three members but one (Dr. Barnes) had absolutely and unconditionally resigned; but we understand that we were mistaken, and that both Dr. Arthur Farre and Dr. Priestley had also resigned their seats on the Board, or at least had tendered their resignations—which is, of course, really the same thing. Their reasons for so doing are, we imagine, the same as those which actuated Dr. Barnes—

that is to say, in effect, that the licence was never meant to be held as a sole qualification for practice, and that they never looked to be called upon to examine for it persons who had not, and could not, obtain any other British qualification. We believe that none of the vacancies on the Board have yet been filled up, and it is, indeed, not easy to suppose that obstetricians of fitting note and position will be found to take the seats resigned in this way by such men as Arthur Farre, Robert Barnes, and Overend Priestley.

THE LIVERPOOL ROYAL INFIRMARY.

It has been decided to appoint an Obstetric Physician or Surgeon to the Thornton Wards of the Liverpool Royal Infirmary, and the election is fixed for April 6. The candidates for the post at present in the field are—Dr. A. B. Steele, Lecturer on Midwifery and Diseases of Women at the Royal Infirmary School of Medicine; Dr. James Bennett, Consulting Surgeon to the Liverpool Dispensaries; Dr. J. Wallace, Honorary Assistant-Physician to the Ladies' Charity and Lying-in Hospital; Dr. J. H. Finegan, Surgeon to the Ladies' Charity and Lying-in Hospital; and Dr. Francis Imlach, formerly Resident Physician at the Liverpool Lying-in Hospital. The addresses of these gentlemen to the trustees of the institution appear in the advertisement columns of the local press, and are certainly instructive reading, presenting, as they do, marked contrasts in style, from the modest and simple announcement of candidature, to the ostentatious narration of every incident in the professional career of the candidate calculated to impress the trustees with his special fitness for the post. Since the above was written we learn that Dr. Wallace has withdrawn in favour of Dr. Steele, on the ground that that gentleman's seniority and position give him supreme claims to the appointment.

EXTIRPATION OF POISONOUS SNAKES IN INDIA.

A report from Dr. Shortt to the Madras Government affirms that the number of species of poisonous snakes in Southern India is only about eight. Of these, four are common—viz., the Cobra, the Bungarus cœruleus, Daboia elegans, and Echis carinata, or carpet snake,—of which the first three are the most deadly, and occasion the chief mortality. There are four others, chiefly confined to jungles and uninhabited districts, which, therefore, seldom cause death: these are the Ophiophegus Elaps, Bungarus fasciatus, Trimesurus, and Hypuale Nepas. Coloured drawings of these snakes have been prepared, with a list of synonyms in various native languages, and have been widely distributed to district surgeons and collectors. Dr. Shortt still believes that good way might be made towards an extermination of snakes if a sufficient reward were offered, and the right sorts hunted out. One out of every 5000 inhabitants in India is destroyed yearly by snake-bite; and this mortality falls on the natives who go about their usual avocations in the fields unclad, or go out at night. He advises that the greatest efforts should be made during the breeding season between May and August, and that the breeding of poultry should be encouraged in snake-infested places, especially the guinea-fowl and pea-fowl, and that the common hedge-crow should be protected. These birds are fond of young snakes.

THE HARVEY TERCENTENARY MEMORIAL.

It is proposed during the next few weeks, before the closure of the subscription-list, to make a wide appeal for donations to the general public and to the members of the medical profession. It is to be hoped that the result may equal the expectations of the promoters of the project. A sum considerably exceeding £700 has been already promised, and the larger part of it received; but the amount required for a first-class work, worthy of being styled a national memorial, is £3000. We are requested to mention that Lord Derby is the Chairman of the London Committee; Sir George Burrows, Bart., President of the London College of Physicians, and Sir James Paget, Bart., President of the Royal College of Surgeons of England, are the Honorary Treasurers; and Mr. George Eastes, M.B., 5, Albion-place, Hyde-park-square, London, W., and Mr. W. G. S. Harrison, B.A., Town Clerk, Folkestone, are the Honorary Secretaries of the fund. Either of the Honorary Treasurers or Secretaries will be happy to receive subscriptions; or they may be paid in to the account of the Harvey Tercentenary Memorial Fund at the Western Branch of the Bank of England, Burlington-gardens, London, W.

THE PREVENTION OF SCARLET FEVER.

In his annual report on the health of the Selby (Yorks) Rural Sanitary District, Dr. H. Franklin Parsons states that, in spite of the intensity and infectiveness of scarlet fever, he believes it is not too much to say that in the country, if the sanitary conditions are fairly good and the cordial co-operation of the friends and the medical attendant can be obtained, it may generally be prevented from spreading beyond the household first attacked. He finds that the great obstacle to carrying out preventive measures is the indifference, incredulity, and fatalism of the people themselves. The mildness of many cases of scarlet fever also makes preventive precautions appear unnecessary as well as irksome, it not being sufficiently known that the mildest case may communicate the disease to another person, who may die of it. He also expresses regret that medical men so frequently use the name "scarlatina," as it is a common fallacy that "scarlatina" is a different and milder disease than "scarlet fever," and he suggests that the term "febris rubra," as given in the official "Nomenclature of Disease" should be used as the Latin name for scarlet fever.

MEDICAL SOCIETY OF LONDON.

The following propositions were put forward at the meeting on Monday last, by Mr. Henry Smith, in his paper on "Some Manifestations of Syphilis, and their Treatment":—1. That certain manifestations of syphilis are met with in a severe form, where there is no history of the reception of the disease, but where they exhibit such features that they cannot depend upon anything else. 2. That the constitutional cachexia attending these conditions is very severe, and is not influenced by ordinary tonics, but readily amenable to specific remedies, which succeed when exhibited in large doses after having failed in small doses. Drs. Drysdale, Semple, and Wiltshire, with Messrs. Gay, Mason, Bell, and Brown took part in the discussion, which was postponed until Monday next. The rule of the Society as to the length of time allotted to each speaker should be undeviatingly followed, ten minutes being the limit.

DEATH FROM CHLOROFORM.

The death of a lady whilst under the influence of chloroform is reported from Liverpool. Deceased went to a surgeon-dentist on Monday for the purpose of having some teeth extracted. At her own request, chloroform was administered, by the dentist apparently, in the presence of her niece and a servant. The operator had extracted two or three stumps when he observed the lady's face become deadly pale. He at once endeavoured to restore animation, and at the same time sent for other medical assistance, but death took place immediately. At the inquest, on Tuesday, the jury returned a verdict to the effect that death arose from misadventure, and they absolved the dentist (who is also a duly qualified surgeon) from all blame.

THE LATE DR. LETHEBY.

We much regret to announce the somewhat untimely decease of Dr. Letheby, so long and so well known in connexion with questions of medical jurisprudence and public health. We hope to give an obituary notice of him next week.

PARLIAMENTARY. — VACCINATION — ARMY MEDICAL OFFICERS — CORONERS IN IRELAND—VIVISECTION—NOXIOUS VAPOURS.

In the House of Commons on Thursday, March 23.

Mr. Sclater-Booth, replying to Mr. Pease, said his attention had been directed to the case of Milner, the chairman of the Keighley Board of Guardians, who had been committed for ten days' hard labour for the non-payment of a fine of 10s. for the non-vaccination of a child. No one regretted more than he did the necessity for prosecutions under the Vaccination Acts, especially when they were repeated a number of times. He might remark that it was the duty of a person filling such a position to see that the law was enforced, and not to set an example of disobedience to it. Moreover, the payment of the fine would at once release Mr. Milner from prison. It was not his intention to propose to the Government any alteration of the law, which Parliament would probably not consent to.

Mr. Hardy, in reply to Mr. Dunbar, said every application for exchange made by medical officers of the army was carefully considered and decided on its own merits. He did not intend to make any change in the existing system.

Sir M. H. Beach, in reply to Mr. O'Shaughnessy, said that, in his opinion, it was advisable that an inquiry by a Select Committee should precede legislation with respect to the office of Coroner for Ireland; but it was not the intention of the Government to move for the appointment of a Committee.

Mr. Cross, replying to Mr. Wait, said that the Government did not underrate the importance of the evidence on vivisection, or the reports of the Commission. He could not state whether any immediate legislation would be proposed or not.

In the House of Lords, on Monday, March 27,

The Duke of Northumberland moved an address for the appointment of a Royal Commission to inquire into the working of manufactories emitting noxious vapours. In support of the motion he stated that those vapours had the effect of lowering the vital powers of people living in the neighbourhood of them, that they produced disease and had the most injurious effect on vegetation, while the people who were injured found it extremely difficult to obtain redress by law.

The Archbishop of Canterbury considered this a most important social question. The state of these manufactories was such as to drive the wealthy from living in their neighbourhood; but the poor, not being able to change their residence, remained exposed to all the pollution caused by the noxious vapours. He was informed that the Local Board had determined to plant no more trees on the Albert Embankment, near which many works emitting deleterious gases were situated, because they considered that it would simply be a waste of money to do so.

The Duke of Richmond, in reply, stated that the Government had every desire to protect the poorer classes from the evils of noxious gases, and it was their intention to consent to the appointment of a Royal Commission. He could not understand how the local authorities failed to carry out the powers already possessed for controlling this nuisance. The sanitary inspectors must have been neglecting their duties if such evils as were complained of existed. Mr. Sclater-Booth in 1874 amended the law so as to diminish the amount of muriatic acid which it was allowable to emit from manufactories, and much good had, no doubt, resulted from that step; but his right hon. friend felt that further information on the subject was necessary, and he had accordingly desired one of the officers of his department—Dr. Ballard, a most competent gentleman—to inquire into the nuisances arising from manufactures and other industries with special regard to health, and to ascertain in what way they could be abated. In order to show the scope of the inquiry he would just mention what Dr. Ballard had done at different places throughout the country. In London, Dr. Ballard's investigations had had reference to nitric and sulphuric acid, dip-candle, alkali, and salt-cake making, soap and bone boiling, chemical manures and knackeries; at Plymouth, to soap boiling and candle making, etc.; at Devonport, to the preparation of fish oils, etc.; at Bristol, to glue making, soap boiling, and candle making; at Wolverhampton, to bone boiling, varnish making, and galvanising works; at Birmingham, to chemical manures, etc.; at Manchester, to chemical manures, soap boiling, alkali making, and dust sifting; at Warrington, to galvanising works, glass works, and candle-making; and at St. Helen's, to alkali and salt-cake making, and copper works. Dr. Ballard's report was not yet completed. When it was it would of course be laid before the Royal Commission, which, as he had already stated, her Majesty would be advised to issue.

In the House of Commons,

Mr. Hardy, replying to Mr. Stacpoole's inquiry respecting the proposed assimilation of the offices of Principal Veterinary Surgeon and the Head of the Medical Department as regards period of service and retirement; as also whether the pay of Army Veterinary Surgeons would be increased, and the path to promotion opened up to them, said there were great difficulties in carrying out the proposal in consequence of the enormous amount of work which the actuaries had on hand. He was anxious that the Veterinary Department should be put in a rather more satisfactory state than it now is.

FROM ABROAD.

Incision in Præpatellary Hygroma.

After adverting to his article on the employment of the antiseptic treatment subsequent to the treatment of hydrocele by incision (inserted in our number for March 11), Prof. Volkmann (*Berlin. Klin. Woch.*, February 21) gives an account of the same mode of treatment which during the last two years he has employed in hygroma of the bursa patellæ. The incision of these tumefactions formerly gave rise to very violent reaction, quite analogous in its characters to that following incision in hydrocele. Together with severe fever there occurred profuse suppuration and tedious healing, the divided sac requiring, according to Heinecke, five or six weeks to become filled with granulations. The neighbourhood of the knee-joint was also not infrequently affected with phlegmon, rendering repeated incisions necessary, and delaying recovery still longer. So frequently had these occurrences been met with after incision, that Heinecke was inclined to regard partial extirpation of the sac as a less formidable operation; while by means of iodine injections or the employment of forcible compression it was sought to do without any operation at all. But by employing the antiseptic treatment we are able (if the sclerosis and thickening of the walls be not excessive, examples of which Dr. Volkmann has not met with) to obtain, without the occurrence of any accident, the rapid primary plastic union of the divided sac—a compressive bandage being at the same time applied. In seven cases of chronic hygroma (six of the bursa of the patella, and one of the elbow) that were treated in this way, no suppuration of the bursæ and no inflammatory swelling of the neighbouring joint occurred. In six of the cases there was an entire absence of fever, while in the seventh the temperature was only slightly raised during two evenings.

The procedure is very simple. According to its size, the sac is divided by a longitudinal incision of from an inch and a half to three inches in length; and if the coverings of the tumour are exceptionally lax and distended, an ellipitical portion embracing both the skin and the sac should be excised. After the discharge of the contents of the sac, any pediculated fibrinous concrements or cords that may be attached to the inner surface should be removed by means of scissors and forceps or the sharp spoon. When the surface has thus been freed, the cavity should be repeatedly washed out with the carbolic acid solution, which should always be of a 5 per cent. strength or somewhat stronger, in order by its stimulus to flavour the production of plastic inflammation. Two thick pads of Lister's gauze are applied on each side of the aperture, so as to force out by compression any of the remaining blood or carbolic acid. When the wound gapes widely no drainage is necessary, but in the contrary case two very short drainage-tubes may be inserted perpendicularly between its edges. The dressing is then to be completed in the usual manner according to Lister's procedure. In two or three days complete adhesion has taken place. When there is gaping of the edges of the incision, it is found filled either with a firm, vitreous-like exudation, or with coagulum of blood. This last soon undergoes a peculiar metamorphosis and organisation. After three or four dressings, occupying from eight to ten days, the healing is sufficiently advanced to admit of the wounds being treated by ordinary means, definitive cicatrisation being completed in from two to three weeks.

Prof. Volkmann furnishes brief abstracts of the eight cases of *chronic hygroma* thus treated. But he adds that this

procedure is also applicable to *acute*, suppurating, or even phlegmonous bursitis, in which rapid plastic adhesion may also be obtained by incision followed by the antiseptic treatment. This will be easiest of accomplishment in those cases in which no perforation of the sac has yet occurred, and in which no surrounding phlegmon has become developed. But even with these conditions, success, under favourable circumstances, may be obtained. Not merely the suppurating bursæ, but also purulent collections in their vicinity, may, after careful incision, washing out and draining, be induced to contract plastic adhesion. This Prof. Volkmann has already shown in his *Beiträge zur Chirurgie*—that adhesion can sometimes be brought about in large cold and congestive abscesses. Of the success of the method in three cases of acute bursitis he gives some particulars in the present article. Two other cases are added to show that even in very severe acute bursitis, when primary adhesion has failed to be produced, after drainage has been resorted to and counter-openings have been made, in the course of a few days suppuration ceases, and adhesion rapidly ensues. In three of the chronic hygromas before referred to, the contents of the sac were hæmorrhagic, one of them being a complete hæmatoma.

Operations in Pregnant Women.

M. Nicaise read at the Société de Chirurgie an interesting case (*Gazette Méd.*, March 18) of an operation practised on a woman, aged twenty-two, in the eighth month of pregnancy with her first child. During the course of three months a tumour had appeared at the lower part of the humerus, and had rapidly increased. It was believed to be (as, indeed, it proved) a periostic sarcoma, and as intervention seemed urgently called for, disarticulation of the shoulder was performed according to Larrey's method. Esmarch's tube and forcipressure were employed, in order to diminish the loss of blood as much as possible. Eleven days after the operation the patient was able to get up, the temperature never having risen higher than 38·6° C. (101° Fahr.). A month later she gave birth to a child weighing three kilogrammes and a half. During the period of milk fever two abscesses formed over the stump; but her recovery still took place rapidly without any other complication. M. Verneuil has had occasion to observe a great number of traumatic lesions in pregnant women; and, in his opinion, it is upon the temperature we should base our prognosis in all these cases, whatever may be the cause of the febrile action. As soon as 40° C. (104° Fahr.) or upwards is observed, great fears should be entertained, for, as a general rule, abortion or death results. M. Polaillon, without denying the extreme importance of the elevation of temperature, believes that two other factors should be taken into account—viz., the amount of loss of blood during the operation, and the stage of the pregnancy. Everyone knows that women abort much more readily during the first half of pregnancy; and the case of M. Nicaise, owing to the period of pregnancy and the little blood lost, was placed in the most favourable circumstances. M. Gueniot has seen febrile affections follow their course without acting injuriously on the course of gestation; and he instanced the case of a woman who suffered from phlegmonous erysipelas of the scalp in the fourth month, and was delivered at the full time. In his opinion, we should take into account an essential condition, namely, the contractility of the uterus, which varies much in different subjects; and by this difference we may explain why some women are so much more predisposed to abortion than others. M. Tillaux has performed operations on three pregnant women, and in all the pregnancy pursued its normal course. In two, very voluminous vegetations were excised from the vulva; and in the other, amputation of the arm was performed. M. Nicaise is of opinion that the nearer the lesion is to the genital organs, the greater is the danger of abortion.

Danger of Chloroform in Fissure of the Anus.

The same number of the *Gazette Médicale* contains an important article by M. Nicaise, in which he calls attention to the fact that fissure of the anus, and especially in its most serious form—the "intolerant fissure" of Prof. Gosselin—is generally accompanied by a well-marked condition of the nervous system, which renders its subjects highly susceptible to the action of chloroform. Forced dilatation, which is almost the exclusive means adopted for treating this affection in France, necessitates the use of chloroform; and it is therefore important for the surgeon to be aware of the danger which may attend its administration. A lady of very nervous temperament, and pregnant two months, being the subject of the "intolerant" fissure, was put under chloroform, and soon fell into a state of resolution without prior excitement. After dilatation had been practised, the patient was found to remain still in an alarming state of resolution, the thorax being quite immovable, and the pulse very feeble. The various efforts at restoration had to be continued for three-quarters of an hour before respiration could be completely re-established. Vomiting was frequent. Although the quantity of chloroform used was very small, the patient was very near dying. To another nervous woman forty years of age, chloroform was most carefully given, and after four or five inspirations she fell into a state of resolution without prior excitement. Dilatation was at once performed, and the patient came-to almost directly—the whole having lasted but a moment. Had the chloroform been continued, disastrous results might have ensued. In the case of a man aged twenty, also, a few inspirations produced anæsthesia and resolution.

In other cases the subjects of fissure, M. Nicaise has not met with this excessive sensibility to the action of chloroform, but its possibility indicates the necessity of precautions. The depressing effect of the chloroform was most marked in the first of these cases, the slow form of death which seemed imminent differing from that commonly observed, in which life ceases suddenly and unexpectedly by syncope—the two forms being distinguished by M. Perrin as the adynamic and the convulsive. Other cases in which dangerous symptoms after chloroform have occurred in the practice of M. Guyon (detailed, as well as those of M. Nicaise, in a *thèse* recently published by M. Ducamp) have comported themselves differently, there having been a prolonged stage of excitement, and the amount of chloroform consumed being much more considerable. Although none of his cases have proved fatal, they have been sufficiently alarming to lead M. Guyon to perform dilatation without chloroform, making it more instantaneous than by Maisonneuve's procedure, which, while rapid, is still progressive. M. Nicaise does not think that chloroform need be renounced in these cases, but that the surgeon should most carefully watch the phenomena produced while administering it himself, and proceeding to the operation the instant that resolution is produced.

The French Medical Association.—Professor Henri Roger has been almost unanimously elected President, in place of Professor Tardieu, resigned.

Antiseptic Property of Madder.—M. de Rostaing has addressed a note to the Académie des Sciences, giving an instance of the conservative power of madder, and suggesting that it might be employed for the preservation of subjects and for rendering cemeteries innocuous. A piece of meat was preserved in a pot containing some madder-root from July 27, 1875, to February 27, 1876, the vessel having been opened a dozen times during this interval, in order to ascertain what results had been obtained. The meat had diminished in weight from 119 to 25 grammes, without its having manifested any odour whatever, and without any living organisms having become developed.—*Gaz. Hebd.*, March 17.

Abuse of English Diplomas in the United States.—"We are somewhat amused at the manner in which our English exchanges are scandalised from time to time on the discovery that some American adventurer, wearing the title of 'doctor,' has trespassed upon English domain. The latest of these gentlemen purports to have come from Boston, and to be the agent of a medical reform association. We presume that it must be the rarity of these occurrences which renders them more startling to our English cousins, and that they can hardly be aware of the extent to which the English diploma is claimed as a shield to all sorts of quackish practices in this country. Large incomes are made by men said to have been the pupils of well-known London physicians, and to be armed with London diplomas. There is a notorious instance of the kind to be found in our own city, where the individual has preyed upon the pockets of many unfortunate people afflicted with cancer. We presume that New York is a favourite hunting-ground for numerous adventurers of this class. Unfortunately, we are powerless to prevent these practices. We confess to being somewhat envious at the facility with which the practices of our would-be colleague were nipped in the bud."—*Boston Med. and Surg. Jour.*, January 27.

REVIEWS.

Illustrations of Clinical Surgery. By Jonathan Hutchinson, F.R.C.S., Senior Surgeon to the London Hospital, and formerly Lecturer on the Principles and Practice of Surgery; Surgeon to the Moorfields Ophthalmic Hospital, and to the Blackfriars Hospital for Diseases of the Skin, etc. Fasciculi I. and II. London: J. and A. Churchill.

This work, of which two parts are now published, promises to be one of great value and great utility. It is intended in it to illustrate surgical diseases, symptoms, and accidents, as well as operative and other modes of treatment, by means of plates, photographs, woodcuts, diagrams, etc. It will thus be seen that the scheme and scope of the work far exceed anything we have had before us in recent times, and did we not well know the author, we should have serious doubts as to the ultimate realisation of the plan. But Mr. Hutchinson is essentially many-sided; not only so, but in every department of his profession he excels. Moreover, in the fascicles now before us we have a good example of what we may expect. The first of these contains illustrations of a very rare form of disease—encephalocele—appearing at the root of the nose, a painful but most striking example of ivory exostosis of the orbit, and rodent cancer or Jacob's ulcer: these are all chromo-lithographs; and the text is, moreover, illustrated by numerous woodcuts excellently done.

It is a pity that the important chromo-lithographs illustrating chancre and soft venereal sore should have been published in the two different fascicles already issued. The letterpress, moreover, relating to this subject is of the greatest possible value, which leads us all the more to regret the separation of the pictures of true chancre from its graphic history. The remaining plates in the second fascicle are devoted to melanosis, hydrocele of the neck, and a peculiar form of erysipelas—all beautifully done, though perhaps those of melanosis are the best. We have only here a faint inkling of what the work is likely to prove: but enough is before us to enable us to predict that it will be unique in its value. The price of each is something wonderful—only 6s. 6d. being charged for each part.

Lectures on Surgery. By James Spence, F.R.S.E., Surgeon to the Queen in Scotland, Professor of Surgery in the University of Edinburgh, etc. Second Edition. Edinburgh: Adam and Charles Black. 1875.

That the first edition of this work has been exhausted in four years is sufficient evidence of its wide appreciation. But this has not prevented the distinguished author from bestowing such pains upon this new issue that in many respects it is a vast improvement on its predecessor. In the first place, the former slightly bound four volumes are now replaced by two handsome volumes in good cloth covers, whilst the paper and type are all that can be desired. The work is further embellished with numerous woodcuts, many of them excellent, and apparently the greater number original. The old lithographic plates are reproduced, and also the chromo-lithographs, so that there is no lack of illustration—a most important feature in a text-book of surgery. At the same time, we are bound to admit that the chromos might well have been spared. We never thought them either an ornamental or useful adjunct to the first edition, and now that so many woodcuts have been provided, they are still less necessary: for they teach little or nothing that cannot be better learnt from a woodcut, and they are even apt to be confusing. For instance, in the section on ligature of arteries, the clearness of the text is simply obscured by such a coloured sketch as that of the external iliac artery (Plate xxix., page 523), in which the metal retractor is coloured like the muscles, and the thread is drawn as *transfixing* the vessel supposed to be surrounded by it. Compare this sort of thing with the capital woodcuts with coloured arteries and veins in such a work as Sédillot's "Médecine Opératoire," and the practical helpfulness of the one as contrasted with the other will be at once evident.

But more important changes are seen in the text. This has been carefully revised throughout, and a good deal of new matter added. The clinical cases illustrating modes of treatment have been most usefully multiplied. The brief recital of an actual case is apt to fix a pathological point or a line of treatment in the mind of a student better than pages of abstract description, and so we gladly hail this feature as a valuable improvement. In the more practical portions of the work, too, the very large experience of so distinguished an operator furnishes excellent hints in nearly every section, particularly in the parts referring to the larynx, trachea, and œsophagus. Wise stress is laid on the necessity for avoiding "brilliancy" in the operation of tracheotomy; Professor Spence's almost unrivalled experience in this proceeding only making him emphasise the necessity for deliberate caution, which we suppose those practical surgeons who have had most to do with this operation most clearly recognise. We remark, however, that no mention is made of the convenient collapsing outer tube, which is so far easier of insertion than the old-fashioned cylindrical one shown in Plate I. And the forceps drawn on page 568, for extracting foreign bodies from the pharynx and œsophagus, are not nearly so handy as those whose curve is almost rectangular—now in common use amongst London surgeons.

In the section on syphilis there is some confusion between the older and more modern doctrines. Constitutional symptoms are said to follow the multiple soft sores, as well as the solitary hard chancre; the bubo of both is described as tending to suppuration, and the statement made that "in true syphilitic bubo we seldom have more than one gland affected. There the diseased condition seems to concentrate itself, and the inflammatory action goes on to suppuration." An assertion like this, proceeding from a surgeon to a Lock hospital, shows how involved the subject of venereal disease still is in the minds of even the most eminent surgeons. The mischief of it is, that such views lead to what most English authorities would surely deem erroneous treatment. For whilst all primary sores are cauterised alike (and preference is given to the mild nitrate of silver over the more energetic nitric acid, although potassa fusa is preferred to both), mercury is not given internally for a hard sore unless it refuses to heal without it. But surely some of the gravest cases of general syphilis are those in which the initial manifestation is so slight as to be probably overlooked.

The subject of tumours has been carefully revised, but, in spite of an attempt to give both a "structural classification" and a clinical one, there is considerable confusion resulting from the retention of old terms. This special branch of surgical science has made such rapid advances of late years, that the only chance of a surgeon of ripe experience and eminence including it usefully in a text-book for students lies in the expedient of employing a younger man, skilled in microscopic research, and well up in recent pathological literature, to undertake the subject entirely in all but its operative aspects. In the present instance this fact has been partially recognised, and Mr. D. J. Cunningham has been allowed to give a "structural classification," but he has contented himself with a somewhat meagre abstract of the classification in MM. Cornil and Ranvier's excellent little manual, occupying little more than two pages.

Professor Spence himself scarcely does justice to modern pathology when, in discussing the subject of cancerous cachexia, he says—"It used to be a question whether the constitution was affected in the first instance, giving rise to the cancerous deposits, or whether it was affected secondarily as a result of the cancerous growth. Now, however, there can be little doubt that we must look upon true carcinoma as a constitutional disease, though it may be excited by local causes; and in the latter cases the prognosis for relief will be more favourable."

It is easy, however, to criticise a book of this kind, and not so easy to weigh its real merits. By all those who have enjoyed the privilege of attending Professor Spence's lectures we are sure this new edition will be gladly welcomed and greatly valued, but we trust that it will be read and studied by many besides who can appreciate a thoroughly practical and systematic treatise on surgery.

Étude Clinique sur le Traitement de quelques Complications des Rétrécissements de l'Urèthre. (*On the Treatment of some Complications of Urethral Strictures.*) Par le Dr. Edward Martin. Paris, 1875.

This is a prize essay on the treatment of difficult or complicated strictures of the urethra, based chiefly on the author's observation of cases under the care of Dr. Guyon in the Hôpital Necker. Although, therefore, it represents principally the practice of that surgeon, a fair idea may be gained from it of the methods of treating strictures most commonly adopted by French surgeons. The author does not lay claim

to any originality, and, as is usual in such essays, he extends what he has to say to a tedious and unnecessary length.

The work is divided into three parts. The first concerns the treatment of impassable and difficult strictures. These are treated first by purgatives and baths, and then by the introduction of a large wax bougie into the urethra, followed, after a short time, by a small gum-catheter, which is passed immediately on withdrawing the bougie. Injections of oil are sometimes used as a preliminary to passing the instrument, and Reybard's plan of dilating the urethra by filling it with mercury is mentioned. A very useful expedient (recommended by M. Voillemier) is that of introducing the bougie or catheter while the patient is micturating. The author has a most exaggerated idea of the dangers of metal instruments.

The second part of the essay is devoted to the treatment of strictures complicated with urinary abscess or infiltration. Early incisions are adopted, and the author justly points out the necessity of a free opening in the middle line of the perineum. For the subsequent treatment of the stricture, gradual dilatation, or internal urethrotomy is preferred.

The third division of the book is upon the treatment of strictures complicated with urinary fistulæ. Many of these are to be cured by the simple dilatation of the stricture; for others it is necessary that a catheter should be retained, or that the urine should always be drawn off through a catheter, so that none should enter the sinuses. We have no doubt that this last is usually the most effectual treatment for urinary fistulæ, although external urethrotomy is desirable where the stricture is very dense or contractile. Excision of the diseased skin, and plastic operations must very rarely be needed, but the closure of fistulæ may at times be facilitated by some kind of cauterisation. The essay exhibits a fair acquaintance with the literature of the subject.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

Philadelphia, February 15.

The Centennial Year from a Medical Point of View—Dr. Toner's "Contributions to the Annals of Medical Progress and Medical Education in the United States, before and during the War of Independence": Early Laws Restricting and Regulating the Practice of "Chirurgions, Midwives, and Physitians"; Petition of Chirurgeons for a Monopoly of Shaving—Series of Articles in the "American Journal of Medical Sciences," entitled "A Century of American Medicine, 1776-1876."

The Centennial year burst upon us with all the concomitant demonstration of welcome which might have been anticipated from the advent of so extraordinary an epoch in American history, but it will not make its impress on the medical world until several months of its brief existence shall have been numbered among the things of the past. Philadelphia is this year the Mecca to which medical pilgrims' thoughts are often turned even now, for it is very evident that all the conventions of 1876 representing the profession internationally, rationally, or locally will be numerously attended, as the old adage of "killing two birds with one stone" may then be conveniently exemplified, and instruction and amusement be derived from simultaneous participation in the duties of Convention-attending and of Exposition-gazing. Centennial medical literature is already looming up as an offshoot of the times, and some valuable contributions may be expected in the columns of the medical journals, showing what a century has brought forth to startle or instruct the world. Dr. Joseph M. Toner has indeed gone further back than the narrow limits of a hundred years, and in a thick pamphlet of 118 pages has given us "Contributions to the Annals of Medical Progress and Medical Education in the United States before and during the War of Independence." The Government has considered it of sufficient historical importance to take its publication in charge. His researches penetrate a very remote period of medical and general history, to the days of Charles I., Cromwell, and James II., when Virginia occupied the most prominent place in American history, and when some of the doctors, like their contemporaries of other occupations, "suffered severely from lack of food, living for a considerable time on crabs and sturgeon," and professional life was attended with such perils that a physician, on one of his visits to a patient, was shot at by the Indians, the arrow passing through his hat. Probably the earliest law passed in America having special reference to the medical profession was, "An Act to compel physicians and surgeons to declare on oath the value of their medicines," enacted in Virginia, October 21, 1639. The quaintness of language of these old laws is perhaps as much a matter of interest in these latter days of attempted philological perfection as the spirit of their provisions, which were intended to protect the public against incompetence. We may not approve of every method they attempted to enforce towards this one great object, but we must at least credit the lawgivers of those days with a disposition to shield the suffering from the hands of those who had no practical qualifications for a profession which they made nothing but a trade. In this respect they were far superior in their views of humanity to the average modern American legislator. As a sample of its class, I may quote the following Massachusetts Act of 1647. It reads thus:—"Chirurgions, Midwives, and Physitians,—Forasmuch as the law of God allowes no man to impair the life or limbs of any person, but in a judicial way: It is therefore ordered, that no person or persons whatsoever imployed at any time about the bodyes of men, women, or children, for preservation of life or health, as chirurgions, midwives, physitians, or others, presume to exercise or put forth any act contrary to the known approved Rules of the Art in each Mystery and occupation, nor exercise any force, violence, or cruelty, upon or towards the body of any, whether young or old (no, not in the most difficult and desperate cases), without the advice and consent of such as are skillfull in the same art (if such may be had), or at least of some of the wisest and gravest then present, and consent of the patient or patients if they be *mentis compotes*, much less contrary to such advice and consent, upon such severe punishment as the nature of the fact may deserve; which law, nevertheless, is not intended to discourage any from all lawfull use of their skill, but rather to incourage and direct them in the right use thereof, and inhibit and restreine the presumptuous arrogancy of such as, through presidence of their own skill, or any other sinister respects, dare boldly attempt to exercise any violence upon or towards the bodyes of young or old, one or other, to the prejudice or hazard of life or limbe of man, woman, or child." It is undoubtedly the fact, as this pamphlet states, that history and experience abundantly prove that wars greatly advance medical science. The war which resulted in the conquest of Canada gave, perhaps, the first material improvement to the condition of medicine in America, for the English army were accompanied by a highly respectable medical staff, most of whom landed in the city of New York, and continued for some years in the neighbouring territories, affording to many young Americans opportunities of attending the military hospitals and receiving professional instruction. The physicians and surgeons of the Anglo-American army gained the confidence of the public by their superior deportment and professional information, and aroused the ambition of the colonial practitioners. The earliest order on record regulating the practice of medicine in New York is said to be found in an extract from the Dutch records, February 2, 1652, in response to "a petition of the chirurgeons of New Amsterdam [New York], that none but they alone be allowed to shave"; the director and council declaring that "shaving doth not appertain exclusively to chirurgery, but is an appendix thereunto; that no man can be prevented operating on himself, nor to do another the friendly act, provided it be through courtesy, and not for gain, which is hereby forbidden." It was further ordered that "ship-barbers shall not be allowed to dress any wounds, nor administer any potions on shore, without the previous knowledge and special consent of the petitioners." At the time of the American Revolution there were, probably, about 3000 medical practitioners in the whole country, only 400 of whom had received the degree; while the others combined the duties of minister, farmer, merchant, and physician. At the time of the Declaration of Independence, in 1776, there were only 4,000,000 of people, with but two medical colleges—a marked contrast to the present day, with its 40,000,000 of people, and one or more flourishing schools in almost every State, with classes amounting annually to 7000, and an annual list of 2000 graduates.

The *American Journal of Medical Sciences* for January publishes the first article of a series to be entitled "A Century of

American Medicine, 1776-1876," which is intended to embrace, under various heads, all the points to which America can lay undisputed claim for originality of discovery or research in the numerous departments into which medicine is now subdivided. These must necessarily be written in a spirit of modesty, not of local glorification, or their value will be greatly marred. We are so apt to be carried along in these days in the Centennial current of happy self-laudation, that we may sometimes indulge in a degree of mutual admiration that we might shrink from in less glowing times. The articles referred to seem to possess a conservative character in this respect, being, so far as published, a mere statement of progressive steps in American medical discoveries during a century in practical medicine, as detailed by Professor Edward H. Clarke, M.D., formerly of Harvard, and supplemented by a paper by Professor Henry J. Bigelow, of the same school, on "The History of the Discovery of Modern Anæsthesia." The latter is the only one now living of the surgeons of the Massachusetts General Hospital who were present, more than a quarter of a century ago, when the first operation under the influence of ether was performed. The strange fact is mentioned, that of the three claimants to the discovery of the anæsthetic effects of ether, Wells died a sudden death, after the brief over-excitement of only a year's duration in the advocacy of his claim had unhinged his reason; Morton died of apoplexy; Jackson, it is to be feared, is at the present time hopelessly bereft of reason. The other papers of the series will be by Drs. Samuel D. Gross, T. Gaillard Thomas, and John S. Billings, United States Army, on Surgery, Obstetrics and Gynæcology, and Medical Literature. It would seem from the titles of the papers mentioned as if some of the work of the International Medical Congress might be thus anticipated, the subjects being similar to those selected by the latter body for the general addresses to be delivered before it. There are so many ways, however, of treating the same theme, when viewed from different standpoints, that we presume there will be a wide variation between the mode in which the writers and the speakers will present the same general facts. The preparations for the meeting of this Congress in Philadelphia in September next are gradually assuming a fixed and definite shape. It is problematical how far the hitherto prevalent antipathy to the ocean voyage may be overcome by the attractive nature of a visit to America at that time, but it is to be hoped that we shall be honoured with the presence of a large number of distinguished members of the profession. The programme of the Congress will shortly be issued, showing the nature of the work outlined for each day, so that I will reserve any further notice of it until that time.

GENERAL CORRESPONDENCE.

HOW THEY DO IT AT THE ANTIPODES.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a distant possession of the British Empire there is a town in which the usual fee for medical attendance has been half a guinea. As a consequence of a change of government, there arrives a Government doctor (who cannot have entered the profession before 1872) with a salary and allowances something under £600 a year. The new-comer, without saying a word to the established practitioner, lowers the fee to 5s., and thereby gets the lion's share of practice. What is to be done? I should mention that I have no interest in the matter, except in so far as I sympathise with the established practitioner, whom I find to be a gentleman.

Antipodes, 1876. I am, &c., Anthropophagus.

St. Mark's Ophthalmic Hospital, Dublin.—Mr. George Hornidge Porter, Surgeon-in-Ordinary to her Majesty the Queen in Ireland, has been appointed Consulting Surgeon to this institution.

The Contagious Diseases (Animals) Act, 1869.—The Privy Council have appointed the following gentlemen to be Inspectors for the purposes of the above-mentioned Act:—John William Tottie Moore, M.R.C.V.S.; John Thomas M'Hugh, M.R.C.V.S.; Professor Thomas Walley, M.R.C.V.S. James Collier Soulsby, M.R.C.V.S., has ceased to be an Inspector of the Privy Council for the purposes of the above-mentioned Act.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 14.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

On some Effects of Lung Elasticity in Health and Disease.

Dr. R. Douglas Powell read a paper on the above subject. After a reference to the views of Hutchinson and Hyde Salter on the mechanism of respiration, the author observed that it is now admitted by the best physiologists that in the position of thoracic repose, *i.e.*, at the end of quiet expiration, the contractility of the lungs is exactly counterpoised by the elastic resilience of the chest-wall. This elastic resilience tending to expand the chest may be termed the excentric thoracic resilience. The presence of this excentric thoracic resilience in health was pointed out by Dr. Salter, and has been incidentally further demonstrated by Mr. Le Gros Clark's more recent experiments to show the "passive tension" of the diaphragm. The resilience of both thoracic wall and diaphragm tending excentrically and thus to increase the capacity of the chest takes an important part in facilitating the respiratory act. The thoracic resilience in calm breathing helps inspiration and eases the recoil in expiration, thus exercising a spring-like function countervailing the lung elasticity in each way. (The diaphragmatic resilience is probably mainly derived from the "spring" of the thoracic margin to which it is attached.) Most authors regard thoracic elasticity as acting counter to inspiration, and Dr. Salter assumed that it was in favour of inspiration only at the very commencement of that act. It is important, therefore, to compare the range of chest-expansion in calm breathing with the degree to which the chest will expand by virtue of the excentric thoracic resilience alone, as ascertained by experiment upon the dead subject. The measurements of Hutchinson, Burdon-Sanderson, and Sibson show the expansion of the chest in quiet breathing to be very small, viz., from one to two millimetres. In some experiments by the author he has found the range to be slightly greater, but variable in different persons. In one observation upon the dead subject Dr. Salter found that on cautiously opening the pleural cavity so as to allow the lungs to collapse, and thus to liberate the chest-wall from their traction, an expansion of one millimetre was recorded. The author has repeated this experiment with slight modification in ten cases. In one case in which the chest was quite healthy the expansion recorded was 3·19 millimetres. In three other cases in which the chest was not quite healthy, expansions of 1·6, 2·1, and 2·4 millimetres were recorded respectively. In six cases in which œdema, or emphysema, or adhesions were present no result was obtained. It thus appears that in health the thoracic resilience favours inspiration throughout, and that probably, even at the termination of quiet inspiration, there is still a small tendency to expand in reserve. The facts and inferences above alluded to are of much interest in their clinical bearings. In emphysema the elastic tension of the lung is loosened, so that the excentric thoracic resilience becomes less and less opposed as the emphysema increases. In extreme cases the inertia of the chest-walls and the resistance of the lung are no longer countervailed by thoracic resilience; hence the uneasy jerk with which the act of inspiration (mainly thoracic in this disease) commences. The view of Stokes, still held by most who have followed him, that the chest in emphysema was expanded, and organs displaced and compressed by the large lungs, is untenable. Some observations of M. Woillez on the expansion of the chest during the febrile state are alluded to. The relationship between cardiac displacement and intra-thoracic pressure is then discussed, a table of seventeen cases of pneumothorax and of three cases of empyema being referred to, in which the intra-thoracic pressure has been tested by the author. Experiments already published are also alluded to as bearing upon the subject. The results of these latter observations and experiments seem to show that the view before expressed by the author is correct—viz., that in all cases of effusion into the pleura, displacement of the heart is at first effected by the traction of the lung from the healthy side upon

the mediastinum—rapidly in the case of pneumothorax, gradually in fluid effusion. When further accumulation takes place, the heart of course becomes further displaced by direct pressure.

Dr. Day observed that the preservation of the respiratory function under great difficulties from abdominal pressure in peritoneal or ovarian dropsies, and the rapid recovery of such patients after the removal of the dropsy without any chest complications, had often surprised him; and he found some explanation of this his experience in the author's suggestions as to the reserve chest-capacity.

Mr. Morris objected to the view expressed in the paper, that the determination of blood to the organs within the mediastinum was due to the elastic traction of the lungs upon it from either side. He maintained that it was due to the expansion of the chest by muscular agency and the consequent afflux to the mediastinal organs by atmospheric pressure. He referred to some observations of Mr. Shaw on the influence of the thoracic movements in encouraging the portal and thoracic duct circulations. He thought the displacement of organs in emphysema due to the muscular action of the diaphragm.

Dr. Pollock had long considered the cause usually assigned for displacement of the heart in pleuritic effusions—viz., pressure—as insufficient. He thought the slow return of the heart to its normal position after the removal of fluid was due to the resistance of the sound lung to expansion. He related the sequel of an interesting case of empyema in which the fluid had been removed, and after two years the heart had suddenly returned nearly to its normal situation.

Dr. Cotton confirmed the author's remark that the soft parts, especially the intercostal spaces, receded in emphysema during inspiration, and especially in very marked cases. This had been also long ago observed by Dr. Sibson.

Dr. Sibson observed that the lower part of the chest especially receded during inspiration in emphysema, this part being less supported by muscular action than the upper parts, which were forcibly expanded. He doubted whether the view expressed by the author, if he had rightly caught his meaning, —that the heart was in fluid or air effusions into the pleura wholly displaced by the elastic traction of the healthy lung,— was correct, for the heart could be observed to at least partially return on the removal of the fluid.

Dr. R. Douglas Powell, after thanking the Fellows for the attention they had devoted to the paper, observed in answer to Mr. Morris, that the tendency of the blood towards the heart still continued through the whole respiratory act; and that during pause, and even after death, when all muscular action ceased, the lungs still exercised a measurable traction upon the mediastinum, but this traction was, as stated in the paper, greatly increased by the expansion of the chest. It had escaped the notice of Dr. Sibson that the effect of intra-pleural pressure in displacing the heart was fully admitted in the paper.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 8.

William Overend Priestley, M.D., F.R.C.P., President, in the Chair.

The following gentlemen were elected Fellows of the Society: —David Finlay, M.D.; Litton Forbes, L.R.C.S. Ed.; George E. Herman, M.R.C.P.; Henry J. Lanchester, M.D.; George H. Lilley, M.R.C.S. (Coventry); Henry A. Lovett, M.R.C.S. (Worcester); A. D. L. Napier, M.B. (Fraserburgh); and C. S. Redmond, L.K.Q.C.P. Ire.

A report by Drs. Galabin and Chalmers, on the latter's specimen of Extra-Uterine Fœtation, was read. The conclusion arrived at was that the bones were portions of a fœtus, the remainder of which had escaped either by the rectum or vagina, and that the ovum must have become fecundated in the ovary, and have been developed in the cellular tissue in its neighbourhood.

Specimen of Myxoma in a Fœtus impeding Delivery.

Dr. Hayes exhibited for Mr. B. White, of Twickenham, a fœtus which had presented by the brow. Forceps were applied, but failed to effect delivery. The left frontal eminence was perforated, and the head brought down, when a further obstruction was discovered, viz., a large tumour near the shoulder, extending from the sternum nearly to the vertebral column. On opening it, some sero-sanguinolent fluid escaped, and delivery ensued. It seemed to be a mucoid degeneration, probably a myxoma originally. The parts were being frozen for subsequent examination.

The President remarked that in external aspect it resembled an enormous nævus he had once seen with Sir James Paget, occupying the dorsal and cervical regions. It was not sufficiently large to obstruct delivery. The child was now living, and the mass shrivelled.

Rectal Protruder.

Dr. Aveling exhibited an instrument he had designed for everting the anterior wall of the rectum, by pressure on the posterior wall of the vagina when the resistance was unusually great, or when, to facilitate any operation, the protrusion had to be kept up for some time. It consisted of a bulb, with a stem bent at right angles two inches from the bulb.

Casts.

The President announced that Dr. Arthur Farre had sent a further instalment of casts illustrating the condition of the uterus after delivery at various periods. A brief description of the ten specimens exhibited was read. The first represented the interior of the uterus in a woman who died during labour, probably from hæmorrhage; the second and third, the external and internal appearances of a uterus in a woman who died twenty-four hours after delivery at the eight month. The remaining specimens illustrated the condition of the uterus at more advanced stages after labour, showing the placental site and various stages of involution. These constituted but a small portion of the collection which Dr. Farre had presented to the Society.

Dr. Graily Hewitt thought this the proper occasion for moving a formal resolution of thanks. It was a rare thing for such a gift to be presented to the Society, and he proposed a cordial vote of thanks to Dr. Farre for his valuable gift.

Dr. Murray seconded it, and hoped the Society would soon have a room large enough to receive the collection.

The resolution was carried by acclamation.

Report on certain Causes of Death in Ewes during and after Parturition; with Notes on the "Navel-Ill" in Lambs.

Mr. Jonathan Hutchinson read a long and interesting communication as above, in which he recounted his experience during the last three seasons. The results seemed to prove that the death of the fœtus before delivery was of far more serious consequence in sheep than in the human subject, and also that it was far from an infrequent one—the lamb after death appearing to become a cause of metritis, there being little tendency to its expulsion. When metritis occurred it was apt to run a rapid course, gangrene often ensuing, during which rupture of the walls frequently took place. Peritonitis and pyæmia not infrequently occurred in connexion with metritis. Puerperal metritis and peritonitis, or the consequent pyæmia seemed to be invariably accidental, so to speak, and not the result of contagion. They occurred in animals treated in the open air, and yet ran a course almost precisely similar to the parallel maladies in the human subject. Ewes, during lactation, seemed liable, by the use of an improper article of food—cotton cake, *e.g.*—to a sort of idiopathic tetanus, which the same article of food showed no tendency to produce in lambs, hoggets, and undelivered ewes. Lastly, young lambs were liable, quite independently of any known source of contamination, to the occurrence of purulent phlebitis of the umbilical vein, with the consequent phenomena of pyæmia—a fact which gave strong support to what Mr. Hutchinson believed to be the true hypothesis of all pyæmia, strictly so called.

Dr. Cooper Rose referred to the salutary effects of opium in subduing pain and spasm in sheep. Many ewes died *after* lambing from what was called *straining;* this he believed to be analogous to after-pains, which, if neglected, led in the sheep to metritis, exhaustion, and death. In 1853 he advised a friend who had lost several sheep from this symptom to try two-drachm doses of laudanum in warm gruel every two hours. This had the effect of entirely curing the disease, all the sheep which were subsequently attacked, with one exception, being saved. In order to eliminate all sources of infection, he would like to know whether the land had been manured by sewage or artificial manures.

Dr. Playfair said it would be difficult to over-estimate the value of such a paper. It would be well if others would follow Mr. Hutchinson's example. His conclusions as to contagion having nothing to do with the disease seemed hardly

justified *primâ facie*, and it would be interesting to know if Mr. Hutchinson had really eliminated the possibility of the disease having been conveyed to the affected ewes. There were many points that forcibly reminded one of the epidemics of puerperal fever occasionally occurring in limited localities, or in the practice of one man. In Mr. Hutchinson's series, the first case of all was clearly a case of autogenetic septicæmia, a piece of placenta being found in utero after death. Was it not possible that the epidemic was started by this case, and conveyed to the other ewes by the shepherd or in some other way?

Dr. Snow Beck, in further illustration of the subject, had brought forward some specimens of uteri removed from sheep which had died after lambing. These he had carefully examined under water. They were large, flabby, and uncontracted, but otherwise all the tissues were perfectly healthy. He had failed to detect any appearance of inflammation, nor were there any coagula in the veins. On laying open the uterus, the inner surface was seen to be covered with a copious dirty-reddish-yellow, purulent-looking fluid, which, when washed away, left the surface flocculent and shaggy, as is usual. Some of the veins were found to be filled with a similar fluid to that seen on the internal surface of the uterus, but the coats of the veins were healthy. On injecting air into these veins, it traversed the sinuses in the walls of the organ, and escaped by openings, previously concealed, at the points where the cotyledons of the placenta had been situated, leading to the conclusion that the fluid from the interior of the uterus had been taken up by these veins, owing to the flabby, uncontracted condition of the uterine walls, and conveyed into the general circulation—in the same manner as in the human female after a miscarriage or parturition. The further changes generally found in the human subject were not observed in the ewe, owing to the animals being killed at an early stage of the affection.

Dr. Wiltshire thought that there might perhaps be something poisonous in the pastures on which the ewes were grazing, and was struck with the suggestion that Mr. Hutchinson attributed the mortality among his lambing ewes to the use of cotton-cake. In America, and especially among negresses, cotton-root is used as an abortifacient. The symptoms were markedly tetanic. Was there any elevation of temperature? Was the saliva of the mother poisonous through nibbling the umbilicus of the lamb in the disease called "navel-ill," as it is in hydrophobia?

Dr. Aveling thought Mr. Hutchinson's paper very valuable. He would remind the Fellows that Harvey, the father of British obstetries, gained a great deal of his obstetric knowledge from the numerous and accurate observations he made upon generation and parturition in the deer. He thought our knowledge might be extended by studying the parturient processes, puerperal disorders, and diseases of the female generative organs in animals.

Dr. Graily Hewitt said that when attached to the British Lying-in Hospital he had noticed a condition analogous to that spoken of by Mr. Hutchinson as navel-ill. He remembered reading a tract published some years since, in which the connexion between morbid processes at the navel and icterus of new-born children with distinct affection of the liver had been noted.

Mr. Hutchinson inquired whether the patients generally recovered when jaundice was marked, or whether the cases ended fatally with symptoms of pyæmia.

The President inquired whether the young lambs suffering from navel-ill belonged to the ewes affected with tetanus, and whether the lambs themselves showed any symptoms of tetanus. Dr. Osborne and Dr. Bland had contributed valuable information to the subject of the diseases and complaints of the lower animals from parturition.

Dr. Edis thought that, in the first year's experience recorded by Mr. Hutchinson, the suggestion offered that the high rates of difficult labours may have been incidental to the breed—the attempt to obtain large animals by crossing the breed—was in all probability the true explanation of the mortality. This was a well-recognised fact among sheep-farmers, who were always careful to avoid placing rams of a larger breed with ewes than experience warranted, for this very reason. As to "the death of the fœtus before delivery being a far more serious occurrence in sheep than in the human subject," this might be explained by the greater apathy among shepherds, owing to their attention being divided among so many, than is the case with medical men, who, in addition to special knowledge, individualise their cases, and, where death of the fœtus occurs before labour, induce delivery at once, before any ill results from decomposition and putrid infection have had time to take place; but where this has been neglected, septicæmia is by no means infrequent. A case occurring in a dog, illustrating these views, was given.

Dr. Braxton Hicks stated that in an epidemic of puerperal fever in Paris the children were affected by peritonitis. It would be interesting to know how far this was in connexion with pyæmic origin. There was unquestionably some relation between septicæmia and this condition.

Mr. Hutchinson, in reply, asked whether, in the epidemics mentioned by Dr. Hicks, any distinct deposits were found in the liver from inflammation of the navel. He was surprised to hear that children suffered so. In all his lambs that died of the navel-ill, pyæmic deposits were invariably found in the liver. The lambs affected were not solely from sheep suffering from tetanus; there was no association between the two, as far as he had observed: the tetanus in the ewes was due to the food taken. In one lamb the navel was long, and had not been nibbled by the ewe. Many of the lambs had not been touched by the shepherd. Dr. Playfair had suggested that the cases were possibly those of peritonitis, pyæmia, and metritis analogous to puerperal fever in the human subject, that the first case was autogenetic, and the others from contagion. The details given showed that any supposition of that sort was out of the question, the dates showing that the cases occurred at considerable intervals from each other: in several it seemed due to the retention of a dead lamb before delivery. It was puzzling to explain how one year there were many deaths, and another none. He had no reason to believe the inflammations of the uterus had any relation with each other. They seemed to arise of themselves and from independent sources. As regards tetanus, he had not seen any case among the lambs; and as to the influence of food, he thought this had little to do with it, as last winter the ewes were fed on cotton-cake, but there were no cases of inflammation. The disproportion in the size of the lambs to the maternal passages he considered a very important point.

Dr. Cooper Rose wished to ask one question—viz., whether the land was manured with artificial manure,—to which Mr. Hutchinson replied that the ewes were fed on turnips, and not on grass.

Dr. Wiltshire inquired whether there were any yew-trees about; to which Mr. Hutchinson replied in the negative.

It is reported that the plague in Mesopotamia continues to increase steadily, but not to an alarming extent. At Hillah, where the epidemic first broke out, on an average about three or four fresh cases are recorded daily.

The New Medical Faculty of Geneva.—The following are the names of the professors hitherto appointed:—Drs. Laskowski (Professor Sappey's assistant), Anatomy; Revilliod, Clinical Medicine; Julliard, Clinical Surgery; Reverdin, External Pathology; Zahn, Pathological Anatomy and Histology; Vaucher, Obstetrics; and Dunant, Hygiene. It is also stated that arrangements are about to be entered into for securing the services of Dr. Brown-Séquard as Professor of Physiology.—*Lyon Médical*, March 26.

The Vitality of Infection.—Dr. M. K. Robinson, the Medical Officer of Health for Dover, recently reported to the Corporation a curious case of the development of small-pox infection after the lapse of a long period. The mortuary of the Dover Workhouse was lately pulled down, and among the *débris* some of the pauper children played. They fitted up a swing with some of the loose timbers, and made a see-saw on trestles that had been used to support the corpses of paupers who had died of small-pox in the epidemic of 1872. It would appear certain that this particular batch of children were kept within the walls, and had no opportunity of catching small-pox elsewhere. There had been no cases of that disease in the workhouse for a long period; there were none in the neighbourhood. Yet amongst these children there was an actual epidemic of small-pox. It was of a mild type, the children having been recently vaccinated, but there was no doubt as to the nature of the disease. Dr. Robinson is confident that the poisonous germs, having been locked up in a chrysalis state, were roused into active life when liberated by the breaking-up of the materials of the dead-house, and thus exposed to the oxidising influences of the atmosphere.

OBITUARY.

SIR JOHN CORDY BURROWS, F.R.C.S., J.P.

We have to record with regret the death of Sir John Cordy Burrows, which occurrence took place at his residence, Old Steyne, Brighton, on Saturday last. He was born at Ipswich in 1813, and had nearly completed his sixty-third year. He received his professional education at Guy's and St. Thomas's Hospitals, and qualified in 1835 by taking the Licentiateship of the Society of Apothecaries. In 1836 he became a member of the Royal College of Surgeons of England, and was admitted to the Fellowship in 1852. He was also a Fellow of the Linnæan, the Geological, and other learned societies. In Brighton he always took a very active part in every movement calculated to advance the interests of the town, there being scarcely a charity or institution in the town which has not benefited by his exertions and liberality. In 1857 he was elected Mayor of Brighton, an office to which he was twice re-elected; and he was also a Justice of the Peace for the borough. In 1871, the high esteem in which Mr. Burrows was held by the inhabitants of Brighton was evidenced by the public presentation of a splendid testimonial, consisting of a handsome carriage and a pair of horses, a silver model of the fountain on the Steyne, and a tea and coffee service for Mrs. Burrows. The fountain bore the following inscription:—"This silver model of the fountain on the Steyne, together with a tea and coffee service, and a carriage and pair, was presented to John Cordy Burrows, Esq., F.R.C.S., J.P., by his numerous friends, in recognition of his private worth and long public services in promoting the social and intellectual good and general prosperity of the town of Brighton, October 13, 1871." It was not until the following year that Mr. Burrows received the honour of knighthood, which distinction was conferred upon him in consequence of a petition to the Crown, asking that his great services to Brighton might receive public recognition. He was, at the time of his death, President-elect of the British Medical Association; and it was, in a great measure, through his influence that it was determined to hold this year's annual meeting of the Association at Brighton. His lamented death will, doubtless, put additional difficulties in the way of holding the Association meeting at Brighton, even if it has not the effect of inducing the Council to consider the advisability of taking immediate steps with a view of holding the meeting in another town.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 23:—

Hill, Alfred Bostock, Winsor-green, Birmingham.
Lawson, Thomas Cornelius, Aston, Birmingham.
Little, Henry Selby, London-street, Reading.
Wilmot, Thomas, Fenton, Lincolnshire.

The following gentlemen also on the same day passed their primary professional examination:—

Bothamley, Richard Broughton, St. Thomas's Hospital.
Head, Percy Turner Jones, University College.
Sellon, John William Gore, University College.
Ling, Charles Arthur Squire, London Hospital.
Pryce, Evan William, St. Bartholomew's Hospital.
Howat, George Rutland, St. Bartholomew's Hospital.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—Robert Pottinger, Esq., has been promoted to the rank of Inspector-General of Hospitals and Fleets in her Majesty's Fleet, with seniority of March 5. In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, Fleet-Surgeon George Duncan, M.D., has been placed on the Retired List of his rank from the 18th ult.

BIRTHS.

Brownrigg.—On March 24, at Hill View, Streatham Common, the wife of J. Annesley Brownrigg, M.D., of a daughter.

Fairbank.—On March 28, at Moulsey House, Windsor, the wife of Thomas Fairbank, M.D., of a son.

Farr.—On March 25, at 116, Earl's Court-road, Kensington, S.W., the wife of Dr. Arthur F. Farre, of a daughter.

Hill.—On March 24, at 6, Bedford-terrace, Upper Holloway, the wife of J. R. Hill, L.R.C.P., of a daughter.

Jackson.—On March 22, at Bournemouth, the wife of J. R. Jackson, M.D., of the Indian Medical Service, of a daughter.

Thorne.—On March 26, at 52, Inverness-terrace, Hyde-park, W., the wife of R. Thorne Thorne, M.B., F.R.C.P., of a son.

MARRIAGES.

Ferrero—Sievers.—On March 25, at St. Mary's, Bryanstone-square, Enrico Ferrero, of Turin, to Elise, only daughter of the late Dr. T. H. Sievers, of Wismar, Mecklenburg-Schwerin.

Hartridge—Murray.—On March 21, at Holy Trinity, Twickenham, Gustavus Hartridge, F.R.C.S. Eng., L.R.C.P. Lond., etc., to Susan Catherine, eldest daughter of the late Lieut.-Col. Murray, 42nd Royal Highlanders.

Hollond—Rygate.—On January 20, at St. John's Church, Wellington, New South Wales, Edmund William Hollond, eldest son of the Rev. Edmund Hollond, of Benhall Lodge, Suffolk, to Ada, eldest daughter of Robert Rygate, M.D.

Murray—Molteno.—On February 24, at St. Saviour's Church, Claremont, Cape of Good Hope, Charles Frederick Kennan Murray, M.D., to Caroline, second daughter of the Hon. J. C. Molteno, Colonial Secretary of the Cape Colony.

Wilson—Thomas.—On February 26, at St. John's Church, Calcutta, Clavell W. Wilson, Esq., eldest son of Dr. T. W. Wilson, Surgeon-Major, etc., of Worcester-park, and late of Calcutta, to Alice Constance, daughter of the late Colonel George Powell Thomas, and granddaughter of the late General Lewis Thomas, C.B., Her Majesty's Indian Army.

DEATHS.

Batty, Sarah, wife of Bryant Batty, surgeon, on March 18, at Seabergh, Yorkshire, in her 78th year.

Fisher, Sir John William, M.R.C.S., on March 22, at his residence, Grosvenor-gate, 33, Park-lane, aged 88.

Forwood, William Perry, youngest son of Dr. Forwood, on January 21, at Port Adelaide, South Australia, aged 27.

Friedlander, Charles Martin, LL.D., M.D., Chevalier of the Belgic Order, Corresponding Member of the French Institute, on March 20, at Nice, aged 74.

Goddard, Samuel, Esq., surgeon, of Burslem, Staffordshire, on March 26, aged 73.

Hitchcock, Elinor, the beloved wife of Charles Hitchcock, M.D., of Fiddington House, Market Lavington, Wilts, on March 22.

Hobson, Jane Abbay, only daughter of the late Dr. Benjamin Hobson, formerly medical missionary in China, on March 25, at Meutone, aged 31.

Holland, Charles, M.D., D.L., F.R.S., on March 21, at St. Chad's, Lichfield, in his 75th year.

Laurie, George Maitland, fifth son of William Forbes Laurie, M.D., at Dunstable, on March 21, aged 29.

Pickering, John, M.D., for nearly fifty years Resident Medical Officer at the Royal Military College, Sandhurst, on March 22, at his residence, The Orchards, Longparish, Hants, aged 87.

Powell, Elizabeth, the wife of Josiah Taylor Powell, M.D., on March 28, at 347, City-road, aged 26.

Renny, Charles, C.B., late Surgeon-General Bengal Presidency, on March 25, at Exmouth, aged 84.

Scully, Catherine, eldest daughter of the late William Scully, M.D., formerly of Torquay, on March 20, at Clifton.

Trimmer, Frances Elizabeth, wife of Francis Trimmer, surgeon, at Southsea, Hants, on March 11, aged 37.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bermondsey.—Medical Officer of Health. Applications, with testimonials, at the Vestry Offices, Maltby-street, on or before April 1.

Birmingham and Midland Free Hospital for Sick Children.—Resident Medical Officer. Must be unmarried, and a registered member of the medical profession. Applications, with diplomas and certificates of registration, to be accompanied by references, to the "Medical Committee," Children's Hospital, Steelhouse-lane, Birmingham, on or before April 7.

Boston Union.—Medical Officer. Applications and testimonials to Henry Bates, Clerk, before Saturday, April 8.

County Lunatic Asylum, Snenton, Nottingham.—Assistant Medical Officer. Must be unmarried, and be registered under the Medical Act. Applications, with testimonials, to the Chairman of the Committee of Visitors, under cover to Kemp Sanby, Clerk.

Essex Lunatic Asylum.—Second Assistant Medical Officer and Dispenser. Must be duly qualified to practise as a surgeon and apothecary, and single. Applications to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood, Essex.

Gloucester County Asylum.—Senior Medical Assistant. Must be single, hold a qualification in both medicine and surgery, and be registered. Applications, stating qualifications, age, previous experience, and when able to enter upon duty, with testimonials, to Mr. Toller, Superintendent of the Asylum, on or before April 8.

Great Northern Hospital, Caledonian-road, N.—Physician. Must be duly qualified. Applications, with testimonials, on or before April 4.

Hospital for Consumption and Diseases of the Chest, Brompton.—Resident Clinical Assistants. Testimonials as to moral character as well as to medical qualifications are required. Applications on or before Monday, April 3, and candidates will be required to attend the Medical Committee on the following day at four o'clock.

Island of Lewis, Scotland.—Medical Officer for the Parish of Uig. Applications, with testimonials, to Walter Rose, Inspector of Poor, Stornoway, N.B.

King's College Hospital.—Assistant-Surgeon. For particulars apply to J. W. Cunningham, Secretary.

Metropolitan Free Hospital.—Honorary Surgeon. Candidates must be Fellows of the Royal College of Surgeons, or pledged to become such within twelve months from the date of election. Applications, with testimonials, to the Committee, Commercial-street, Spitalfields, E., on or before April 15.

Middlesex Hospital.—Physician. Applications to the Weekly Board before twelve o'clock noon, on any Tuesday until further notice.

Parish of Lochmaben, Dumfriesshire.—Medical Officer. Must reside within the burgh. Salary given by Parochial Board, £50. Certificates, with testimonials, to H. B. Currie, Inspector of Poor, not later than April 3.

St. Mary's Hospital Medical School.—Chair of Botany. Applications, accompanied by testimonials, on or before April 3, to the Secretary, Jos. G. Wilkinson.

St. Thomas's Hospital.—Assistant-Surgeon and Apothecary. Applications and testimonials to the Treasurer, Counting-house, Westminster-bridge.

Suffolk Lunatic Asylum.—Medical Superintendent. Applications to the Clerk of the Peace, County Hall, Ipswich, on or before April 4.

Warneford, Leamington, and South Warwickshire Hospital.—House-Surgeon. Properly qualified. Applications, with testimonials, to the Secretary of the Hospital, Leamington, on or before April 26.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Huddersfield Union.—Mr. J. S. Cameron has resigned the Huddersfield South District; salary £37 per annum.

APPOINTMENTS.

Amersham Union.—John F. Churchill, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Second Chesham District.

Bishops Stortford Union.—W. B. Willans, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Hadham District.

Bolton Union.—John T. Redmayne, L.R.C.P. Edin., M.R.C.S. Eng., to the Sharples District.

Dartford Union.—Cuthbert H. C. Huddart, B.M., L.S. Dub., to the Fourth District.

Edmonton Union.—Fredk. Agar, M.R.C.S. Eng., L.R.C.P. Lond., to the Enfield Highway District.

Hambledon Union.—Albert A. Napper, M.R.C.S. Eng., L.S.A., to the Cranley District.

Leek Union.—Archibald Somerville, M.D. Edin., L.R.C.P. Edin., L.R.C.S. Edin., to the Endon District.

Saffron Walden Union.—Henry Stear, M.R.C.S. Eng., L.S.A. Lond., to the Workhouse.

Tisbury Union.—Thos. A. J. Cocksedge, M.R.C.S. Eng., L.S.A., to the Hindon District.

Wells Union.—Thos. Markby, M.R.C.S. Eng., L.S.A., to the Fourth District.

Dr. Moxey.—This distinguished elocutionist, better known to the public as "Dr. Leo Ross," will give one of his inimitable readings at Willis's Rooms this evening (Friday). "Clarence's Dream," from *Richard III.*, is alone worth going to hear.

Sir Patrick Dun's Hospital, Dublin.—A bazaar in aid of this institution was held in the Hall of the King and Queen's College of Physicians, Kildare-street, on last Wednesday and Thursday, March 29 and 30. The Hall was lent for the occasion by the President and Fellows of the College.

The *conversazione* of the Obstetrical Society of London will be held on May 10. There will be an exhibition of obstetrical instruments. It is asked that all gentlemen possessed of any interesting ancient or modern (or models of) instruments, or any rare portraits of medical men, will kindly lend them for the occasion, and communicate without delay with the Secretaries.

It is proposed to establish in Liverpool a central office for the collection of subscriptions to Liverpool charities. The Honorary Secretary of the Central Relief Branch of the Charity Organisation has announced that that Society will undertake the collection at a charge of 4 per cent.; but, in the event of the large charities joining the scheme, a lower charge, it is expected, will be accepted.

Healthiness of Canton.—Various speculations have been advanced to account for the singular exemption of the inhabitants of Canton from the effects of malaria. Some have ascribed it to the vast amount of smoke produced by the burning of wood for domestic purposes; while others have attributed it to the abstemiousness of the people. These reasons seem, however, insufficient to account for it. As for the abstemiousness of the people—which certainly exists, but from necessity, not from choice—it is hardly reasonable to suppose that that would counteract the other habits of their lives, which certainly would appear to be highly unfavourable to health. If narrow, filthy streets, ill-ventilated and crowded houses, and uncleanliness of person, can produce disease, then it would appear that the people of Canton should be sorely afflicted. But yet all these predisposing causes seem to have no effect either upon the myriads who live and die in crowded boats upon the river, or upon those who throng the land; and years pass away without any serious epidemic.—*Hawk's Expedition to China and Japan.*

Downing College Open Foundation Scholarships.—At the College examination in June, 1876, two foundation scholarships of the value of £80 per annum will be awarded for proficiency in law and in natural science respectively. These scholarships will be open to all members of the University who are of not more than three terms' standing from matriculation; and the successful candidates must at once enter Downing College, if not already members of it. For the law scholarships the subjects will be—The Institutes of Gaius and Justinian, the English law of real and personal property, and English constitutional history. For the natural science scholarships the subjects will be—Chemistry (theoretical and practical), physiology, comparative anatomy, and botany; but special proficiency in one subject will be considered of more importance than a moderate knowledge of all. Candidates who are not members of Downing College must send their names to the Master on or before May 29, 1876, accompanied by certificates of moral character. For further information apply to John Perkins, Esq., or to the Rev. T. J. Lawrence, tutors of the College.

The New Cemetery Project at Paris.—After making the tour of Europe, M. de Jugny, a young engineer, has just returned and submitted to the Académie des Sciences a complete plan, the adoption of which would supersede the project of the new cemetery at Méry-sur-Oise, which has been recently sanctioned, and would render cremation, to which there are so many objections, quite unnecessary. It consists in constructing vast subterranean galleries, two stages in height. Each gallery is to be divided into compartments formed of very solid hewn stone, each being able to hold a coffin, and so secured that no infiltration or exhalation can take place. The system, it is said, is in action at Naples to everybody's satisfaction. The expense, carried over twenty years, will amount to only 2,000,000 fr. per annum—less than the interest of the sum that the Méry cemetery will at once require. Calculations show that thirty-five hectares (about ninety acres) of land will suffice for the entire population of Paris; and the requisite territory may be obtained underneath the fortifications, and distributed according to the wants of the different parts of the capital.—*Rév. Scientifique*, March 10.

Military Medical Intelligence.—Her Majesty the Queen has been pleased to confer the Distinguished Service Pension, vacant by the death of Inspector-General of Hospitals Sir David Dumbreck, K.C.B., on Deputy Inspector-General of Hospitals Joseph Burke. Mr. Burke entered the Army Medical Department in January, 1840; became Surgeon in December, 1849, and Surgeon-Major in January, 1860. He retired as Honorary Deputy Inspector-General in June, 1867. This officer served in the 50th (Queen's Own) Regiment throughout the Sutlej Campaign (1845-46), and was present at the battles of Moodkee, Ferozeshah, Aliwal, and Sobraon—in the two latter engagements and to the end of the war in medical charge of the Regiment (medal and three clasps). Served with the Buffs from April, 1855, in the Crimea; at the siege and assault of Sebastopol (medal and clasp). Served in China with the Buffs in the campaign of 1860, and was present at several engagements, including the storming and capture of the Taku Forts (medal and clasp); and was for some time Principal Medical Officer at Tientsin, China. Mr. Burke is a graduate of Trinity College, Dublin, and a licentiate of the Royal College of Surgeons in Ireland.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** We neglected to state last week, when discussing the Universal Disinfecting Powder, of which we were able to speak so highly, that it is manufactured under Mr. Langston Jones' patent by Messrs. Ledger and Co., Lant-street, Southwark. The wholesale price is £10 per ton.

A Country Reader.—We fear we cannot give the information wanted.

A. A., Liverpool.—Dr. Orme Dudfield's paper on "London Slaughter-Houses and Cowsheds," which he read at a meeting of the Society of Medical Officers of Health, together with a report of the discussion which followed, has been printed in a separate form.

Apropos.—Sir John Jervis remarked, on the office of coroner, that it had "fallen from its pristine dignity into the hands of those who are in some instances incompetent to the discharge of even their present limited authority."

Sophistication.—The Laboratory of the Board of Inland Revenue has been in existence for more than thirty years.

M.D., R.N., Portsmouth.—Your name must be sent to the office of the Lord Chamberlain, to be submitted to her Majesty, to whom you can be introduced by your Director-General.

M. M., Derbyshire.—James Petiver, an English naturalist who flourished at the end of the seventeenth and beginning of the eighteenth centuries, passed the chief part of his life as an apothecary, at the White Cross, in Aldersgate-street, London. He became apothecary to the Charter-house, and obtained a considerable practice. He was a great collector of natural curiosities. Sir Hans Sloane, some time before Petiver's death, offered him £4000 for his museum, and afterwards purchased it. He died at his house in Aldersgate-street on April 20, 1718, but of his age we have no mention.

Dr. W. G. N.—Yes; the influenza of 1833 prevailed simultaneously in London and Cape Town, although it was then the summer of one place and the winter of the other.

An Intending Contributor.—The subscriptions at the annual festival held at the London Tavern on the 22nd ult. in aid of the Hospital for Sick Children in Great Ormond-street amounted to £2500.

Good Templar.—The Grand Juries of Counties Mayo, Galway, Longford, Waterford, and the cities of Kilkenny and Waterford, have adopted petitions in favour of the entire closing of public-houses on Sundays. Similar petitions have been signed by the majority of the Grand Juries of Antrim, Armagh, and Kildare.

Prescriptions in the Olden Time.—The late Sir Henry Halford saw a prescription dug out of the ruins of a house in Duke-street, Westminster, once the residence of Oliver Cromwell's apothecary, in which a portion of the human skull powdered was ordered for Sir Nicholas Throckmorton.

A Collector, Manchester.—Dr. George Fordyce was a "F.R.S.," and a bit of a poet, judging from the following lines, sold, with other autographs, by Messrs. Puttick and Simpson:—

"Approved by Æsculapiau skill,
This mixture, sent with much good will,
Is to be taken twice a day—
Stomachick, kindly as the lay
That ventures on this weak essay.
It comes from careworn fairy old,
Of whom strange prodigies are told,
Like airy sprites in Walter Scott,
That dance on moonbeams to the spot
Where fairy circles mark the ground,
And may be traced by minds profound,
This mixture, deemed so wondrous nice,
A panacea of great price,
Comes from the ancient fay Fordyce.
Dated
From Bathwick Bower, the time and hour
Is ten o'clock in morning grey,
Although the 19th day of May,
1812.
In progress of time how we delve!
Fly, messenger, without delay:
Off! off!! go! go!! with this essay,
And do not linger on the way.—*George Fordyce, M.D.*"

A Candidate, University College.—The result of the primary examiuation of the College of Surgeons will not be made known until the following morning. Owing to the disorderly conduct of most of the candidates and their *friends*, who congregate in such considerable numbers, the regulation is a judicious one.

Dr. Denman.—The Board of Examiners in Midwifery of the Royal College of Surgeons was established in 1852, and consisted of Mr. James Luke, and Drs. Arthur Farre, Henry Oldham, and James Reid. Drs. Robert Barnes and William Overend Priestley were elected in 1866.

Mel, Ringwood.—It is an Italian proverb "Vino di mezzo, oglio di sopra, e miele di sotto" (Of wine the middle, of oil the top, of honey the bottom).

A Militia Surgeon's Grievance.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have been surgeon to a militia regiment for more than twenty years. One of my duties was to accompany the adjutant to different parts of the county to examine recruits. Every year I have had about 100 journeys, each one taking up the whole or best part of the day. My private practice suffered considerably by my absence, but the regimental pay compensated me for the loss. I am now informed that, owing to official changes in the mode of recruiting, my services will not be required away from home. Thus I lose a large amount of pay, and I cannot regain that practice which I abandoned to enable me to perform my military duties.

March 28. I am, &c., A Militia Surgeon.

Dr. Carmichael Smyth.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In last week's "Notes and Queries" you notice the above-named eminent Physician to the Middlesex Hospital, who had the good fortune to receive £5000 from Parliament for his demonstration of the power of nitrous acid fumigation in preventing and arresting the contagious typhus that used to prevail in crowded gaols and ships. The learned Doctor first had the ward emptied if possible; then the floor, walls, and ceiling washed with water containing a small quantity of muriatic acid, and then well fumigated. If the ward still contained patients, the floor was every morning mopped with water containing the dilute acid, and gallipots, about two-thirds filled with fuming nitrous acid, were placed between each adjoining bed. For the acid, a mixture of powdered nitre and sulphuric acid was afterwards substituted.

Besides nitrous acid fumigation, Dr. Carmichael Smyth wrote on the insane experiments in diet by which the young and ingenious physician, Dr. Stark, killed himself; he also wrote on hydrocephalus in children, for which he recommends mercury with squill, a combination still used; but the most curious production of his pen is his "Account of the Effect of Swinging employed as a Remedy in the Pulmonary Consumption and Hectic Fever: London, 1787." He had a swing erected in the Middlesex Hospital Gardens, in which patients affected with phthisis, hectic, night-sweats, etc., were daily swung. His theory, as derived from the observed effects, was that there was some peculiar influence in passive motion. Whilst, he says, "exercise" acts as a stimulus, passive motion acts as a sedative on the system: "*its action seems to be immediately on the nervous influence;* it lessens the principle of irritability, and counteracts the causes of irritation." Hence swinging diminishes cough, lessens the frequency of the pulse, produces costiveness, drowsiness, and sleep—in fact, it has all the good effects of a sea-voyage, without the harm; seldom causes vertigo and nausea; and, above all, it can be enjoyed at home. The reference to the nervous system seems to foreshadow our modern ideas as to the influence of wine upon the organs of nutrition. I am, &c., D.

Mental Physiology.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have just read Dr. Carpenter's "Mental Physiology," and derived much pleasure and instruction from the perusal of this highly interesting work. Generally, I am in accord with the ideas of the author; but I cannot help thinking that, in stating that will and consciousness are not functions of the brain, but in some way independent of it, he has committed a fundamental error. With your permission, then, I will endeavour to explain why I venture to differ from a physiologist so eminent.

Whether there be an external world or not; what is the essential nature of matter or of soul; whether we are to live again, and in what form—of these things I shall say nothing. Mental physiology—or, better, the physiology of the brain—is my subject.

Centuries ago a prejudice grew up against matter. The body and its natural functions were deemed degrading and disgraceful. The highest virtue was to mortify the flesh by starvation, flagellation, laceration, etc. Celibacy, too, for a similar reason, was extolled. All intelligent people of the present day reject these notions. Surely the materialist, who believes that the Almighty can at his pleasure endow matter with certain powers, forces, or faculties, is superior to those spirits that talk twaddle and delight in rapping and turning tables!

Dr. Carpenter says "the operations of the mind are in a great degree determined by the natural conditions with which they are so intimately connected." "Wholly," I should say; and for the "operations of the mind" I would substitute "operations of the brain." Man, it is true, has a will; but so have the dog and the horse—and in all three it is a function of the brain. In intoxication, fever, delirium, insanity, etc.—where is the will and where the consciousness? The brain, and the brain alone, is the organ of mind. Medullary matter thinks. We breathe with the lungs, see with the eye, and think with the brain. Why do will and consciousness demand a spirit more than the other functions of the brain? Mental states are states of the brain: mental activity, brain activity; mind force, brain force; laws of thought, laws of brain activity; mental phenomena, brain phenomena. Automatic and unconscious acts are admitted to be acts of the nervous system. Volitional acts, or those which take place the will intervening, are equally functions of the nervous system, the will itself being a function of the brain. The voluntary and volitional movements of animals are of the same kind as those of man. I cannot conceive of the *ego*, or of the will and consciousness, apart from soul and body, which are one. The mind of a child grows in power with the brain, just as it walks when the bones and muscles are sufficiently developed. Many learned divines have contended that the body is raised up at the last day. "Elijah went up by a whirlwind into Heaven." Christ, we are told, ascended bodily into Heaven.

Some believe that God is a person, in form like a man.

I deny that the materialistic hypothesis "tramples on the noblest conceptions of our moral nature." Why should not morality be associated with certain kinds of matter?

To the spiritualist the mind appears "in the light of a separate immaterial existence." How does this differ from the idea that "there is *something beyond and above all this*"? Where does this "immaterial existence" or this "something" reside? In the brain or outside it? In the cranium or at a distance? We speak of nerve-force, why not then of brain-force? To speak of physical antecedents and mental consequents is incorrect; it should be cerebral consequents.

"Thus the correlation between mind-force and nerve-force is shown to be complete both ways." Here mind-force should be cerebral-force. Some have thought that "all the operations of the mind are but manifestations or expressions of material change in the brain,"—and they have rightly so thought. But from this it does not follow that "notions of duty and responsibility have no real foundation." The responsibility of man does not depend upon whether the Almighty has made will a function of the brain or not.

Metaphysicians and theologians have never been able to reconcile the free will of man with the foreknowledge of God. There is but one solution—"For My thoughts are not your thoughts, neither are your ways. My ways." I am, &c., J. Jones.

53, Blenheim-crescent, Notting-hill, W., March.

COMMUNICATIONS have been received from—

Mr. Henry Sewill, London; Mr. Wm. Douglas Hemming, London; Mr. Thos. Wm. Blake, Bournemouth; Dr. John Bertram Fairman, Hanley; The Assistant-Secretary of the Royal Microscopical Society; The Hon. Secretary of the Medical Society of London; The Secretary of the Obstetrical Society of London; Mr. Chas. Glaisher, M.B., West Norfolk and Lynn Hospital; Messrs. Barraud and Jerrard; Mr. Chas. C. Aldred, Yarmouth; The Secretary of the Royal Institution of Great Britain; Dr. J. R. Wolfe, Glasgow; Mr. J. Warrington Haward, London; Mr. Henry Morris, London; Mr. J. Chatto, London; Dr. F. Churchill, London; Mr. W. E. Poole, London; Dr. Francis Ooston, Aberdeen; Mr. B. R. Wheatley, London; The Secretary of the Pathological Society, London; Mr. George Brown, London; Mr. Henry Arnott, Beckenham; Dr. R. Lawson, Wakefield, Yorkshire; Dr. Thomas Stretch Dowse, London; The Secretary of the Society for the Encouragement of Arts, Manufactures, and Commerce, London; Mr. Burke, London.

BOOKS AND PAMPHLETS RECEIVED—

Transactions of the Obstetrical Society of London, vol. xvii., for the year 1875—Reproductive Disorders: Spermatorrhagia, Exhausted Brain, etc., by a Court Physician—Matthews Duncan on the Alleged Occasional Epidemic Prevalence of Puerperal Pyæmia—Ross on Consumption, its Treatment by Climate—Lauro de Franco: Etudes Historiques et Recherches sur le Poids et la Loi de l'Accroissement du Nouveau-Né—Metropolitan Cow-sheds and Dairies—Report upon Uncertified Deaths in Glasgow by the Medical Officer of Health—Sands on the Causes of Gleet, and on the Calibre of the Male Urethra—Fox's Atlas of Skin Diseases, part vii.—Crowfoot's Retrospective Address to the Medico-Chirurgical Society of Norwich, July 6, 1875.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Journal des Sages-Femmes—Paris Médical—Medical Examiner—Leeds Mercury—Hastings and St. Leonard's News—Essex Weekly News—Anales de Ciencias Médicas—Bolton Weekly Journal—Bristol Mercury—Students' Journal and Hospital Gazette—Medical Temperance Journal for April—Monthly Microscopical Journal—Hardwicke's Science Gossip—Leisure Hour—Sunday at Home—Hastings and St. Leonard's Independent—American Supplement to the Obstetrical Journal of Great Britain and Ireland—Bolton Evening News.

APPOINTMENTS FOR THE WEEK.

April 1. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westmiuster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Edward Dannreuther, "On Wagner and his Trilogy."

3. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Adjourned Discussion on Mr. Henry Smith's paper "On some Manifestations of Syphilis and their Treatment." Mr. J. Knowsley Thornton, "On the Surgical Aspects of Pelvic Hæmatocele."

Royal Institution, 2 p.m. General Monthly Meeting.

4. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. Pye Smith—Injury to Head, with Chronic Hydrocephalus. Mr. Knowsley Thornton—Contents of Dermoid Ovarian Cyst. Mr. Lennox Browne and Dr. Gilbart Smith—Disease of Larynx, with Pressure on Right Inferior Laryngeal Nerve. Mr. Barker—Fracture of Cervical Vertebræ, with Injury of Cord. Mr. A.W. Stocks—Occlusion of Superior Vena Cava. Dr. Greenfield—Congenital Absence of Superior Vena Cava. Dr. Hilton Fagge—1. Lardaceous Liver and Spleen; 2. Thrombosis of Mesenteric Vein. 9¼ p.m.: Conclusion of Adjourned Discussion on Syphilis.

Royal Institution, 3 p.m. Prof. Garrod, "On the Classification of the Vertebrated Animals."

5. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Mr. Edwin Child, "Notes and Specimen of a Case of Extra-Uterine Fœtation." Dr. John Williams, "On the Mechanical Action of Pessaries." Dr. Cooper Rose, "A Contribution to the Statistics of Midwifery in General Practice." Dr. Gervis, "Case of Puerperal Septicæmia." And other Communications.

Royal College of Physicians, 5 p.m. Lumleian Lectures—Dr. Habershon, "On the Pathology of the Pneumogastric Nerve."

Royal Microscopical Society, 8 p.m. M. Rénard, "On some Results from a Microscopical Study of the Plutonic and Stratified Rocks of Belgium." Dr. J. J. Woodward, "Note on the Markings of *Navicula rhomboides*."

6. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Mr. Cripps Lawrence, "On the Etiology and Treatment of Scrofulous Ophthalmia."

Royal Institution, 3 p.m. Mr. William Spottiswoode, "On Polarised Light."

7. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal College of Physicians, 5 p.m. Lumleian Lectures—Dr. Habershon, "On the Pathology of the Pneumogastric Nerve."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. Edward Burnett Tyler, "On Ordeals and Oaths."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 25, 1876.

BIRTHS.

Births of Boys, 1309; Girls, 1292; Total, 2601.
Average of 10 corresponding years 1866-75, 2284·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	824	791	1615
Average of the ten years 1866-75	784·1	778·9	1563·0
Average corrected to increased population ...	...	...	1672
Deaths of people aged 80 and upwards ...	...	...	56

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	19	8	...	16	...	3	2	1
North	751729	...	12	9	2	27	...	...	1	3
Central ...	334369	...	5	2	...	10	...	1	2	...
East	639111	...	8	4	...	20	1	3	1	1
South	967692	1	19	14	1	21	...	1	...	5
Total	3254260	1	63	37	3	94	1	8	6	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·680 in.
Mean temperature	35·7°
Highest point of thermometer	52·0°
Lowest point of thermometer	25·5°
Mean dew-point temperature	29·9°
General direction of wind	Variable.
Whole amount of rain in the week	0·18 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 25, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending Mar. 25.	Deaths Registered during the week ending Mar. 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2601	1615	52·0	25·5	35·7	2·06	0·18	0·46
Brighton	100632	42·7	50	49	49·0	27·4	34·1	1·17	0·18	0·46
Portsmouth ...	124867	27·8	77	49	...	...	...	...	...	...
Norwich	83430	11·2	60	35	48·5	26·0	35·0	1·67	0·17	0·43
Plymouth	72230	51·8	43	36	48·5	28·5	36·4	2·44	0·58	1·47
Bristol	199539	44·8	143	122	52·7	23·6	34·8	1·56	0·27	0·69
Wolverhampton ...	72549	21·4	68	28	49·5	24·2	33·7	0·95	0·03	0·15
Birmingham ...	371839	44·3	335	209	50·0	24·6	34·3	1·28	0·17	0·43
Leicester	113581	35·5	102	54	53 8	25·2	35·4	1·89	0·04	0·10
Nottingham ...	93627	46·9	66	37	51·5	24·0	34·6	1·45	0·16	0·41
Liverpool	521544	100·1	433	319	48·4	28·5	36·2	2·33	0·02	0·05
Manchester ...	357917	83·4	296	255	...	...	...	...	...	...
Salford	138425	26·8	161	107	50·4	22·6	34 3	1·28	0·00	0·00
Oldham	88609	19·0	74	66	...	...	...	...	...	...
Bradford	173723	24·1	148	86	48·4	25·8	36·0	2·22	0·02	0·05
Leeds	291580	13·5	237	149	50·0	26·0	35·5	1·95	0·17	0·43
Sheffield	274914	14·0	239	179	49·0	24·5	34·3	1·28	0·12	0·30
Hull	136933	37·7	97	65	50 0	25·0	35·1	1·73	0·28	0·71
Sunderland ...	108343	32·8	97	44	52·0	25·0	37·8	3·23	0·36	0·91
Newcastle-on-Tyne	139929	26·1	121	82	...	...	...	...	0·40	1·02
Edinburgh	215146	51·3	136	109	51·0	24·0	38·0	3·33	...	...
Glasgow	545144	90·4	465	366	...	...	...	...	...	...
Dublin	314666	31·3	174	204	50·7	26·5	38·8	3·78	0·26	0·66
Total of 23 Towns in United Kingdm	8028595	37·7	6228	4265	53·8	22·6	35·6	2·01	0·19	0·48

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·88 in. The highest was 29·90 in. on Sunday evening, 19th inst., and the lowest 29·45 in. on Friday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

THE DISCUSSION ON SYPHILIS

BEFORE

THE PATHOLOGICAL SOCIETY.

ABSTRACT OF THE PRESIDENT'S ADDRESS.

Mr. Pollock's address on syphilis on Tuesday evening preceded Mr. Hutchinson's reply; and, for this reason, as well as from its general character, was to be considered not so much a judicial deliverance, as the last speech of the debate. While he freely referred to the opinions that had been expressed, and indicated the disposition that had been shown to agreement, or the reverse, on several of the leading issues, the President very naturally and wisely abstained from drawing conclusions, but furnished, instead, important personal evidence where it appeared to be most required. Beginning with the question whether syphilis was a blood disease after the cessation of symmetrical symptoms, Mr. Pollock said that very different answers had been returned. He believed, with Dr. Wilks, that syphilis was to be regarded as peculiar, as a disease *per se*. Each of the eruptive fevers was seen to have its definite course, and to be but little influenced by treatment. The sequelæ of these were not specific; moreover, they left the patient free from the risk of a subsequent attack. But neither the disease nor such immunity from its occurrence was transmitted to the offspring. In syphilis all was different. Like Dr. Wilks, he would say that the terms "primary," "secondary," and "tertiary" were of little importance.

Mr. Hutchinson had said that there was no evidence that tertiary forms of disease proved contagious; he would ask whether a healthy subject might not be infected by a tertiary sore. He should certainly like a hint how Mr. Hutchinson arrived at the conclusion, that the risk of contagion seemed to cease before the risk of hereditary transmission had done so. A woman with syphilitic disease of the larynx, necessitating tracheotomy, and non-symmetrical rupia, had borne in his wards a child, which in three weeks presented syphilitic symptoms. Again, there were cases of healthy wet-nurses being infected on the breast with hard chancre by a syphilitic child. Thus, in the first case, the tertiary form in the mother gives rise to the secondary in the child; and in the second case, the secondary form in the child causes the primary in its nurse. Again, if tertiary syphilis were not a blood disease, why did union not occur in plastic operations on such subjects? In a case of perineal fistula referable to severe venereal disease, and accompanied three years later with syphilitic ulceration of the nose and mouth, Mr. Pollock had, much against his will, to perform a plastic operation, and with complete want of success.

All these facts seemed to show that the disease must be considered as one, and in the tertiary condition as modified by time, by daily changes of structure, and that it thus gradually approaches a termination where the patient may be considered free, but after which the disease may return afresh, by exposure to certain influences, such as distress, ill-health, and so on. Many years ago he had seen this illustrated in the case of of an officer who, after severe bronchitis, had nodes on his head referable to syphilis forty years before. With regard to the connexion between syphilis and scrofula, Mr. Pollock said he believed that there was no evidence that syphilis was in any way the parent or other relation of scrofula. But scrofula, like other circumstances, such as climate and temperament, might influence the severity of syphilis. He had been informed that in India the virus of mixed races produced a severe form of the disease, and this probably was a general experience. Respecting the resemblance between the sequelæ of syphilis and of other diseases, he could not agree with Sir James Paget. He would look on the sequelæ of fevers as in some degree accidental, and not related to them in any other way. The sequelæ of typhoid appeared to be really pyæmic, like those after parturition, and to bear no relation to those of syphilis.

Having said so much, the President congratulated Mr. Hutchinson on the remarkable address with which he had opened the discussion. He was convinced that, however much they might differ on points of detail, the members were agreed on the true pathology of syphilis, and on the subject of its treatment. Nor did he think they would differ regarding the necessity of legislative enactment for the suppression of the spread of the disease. The discussion was closed by Mr. Hutchinson, whose reply we here give.

ON THE PATHOLOGY OF SYPHILIS.

BEING THE CONCLUDING REPLY IN THE DEBATE AT THE PATHOLOGICAL SOCIETY OF LONDON, TUESDAY, APRIL 4, 1876.

By JONATHAN HUTCHINSON, F.R.C.S.,

Senior Surgeon to the London Hospital, and to the Blackfriars Hospital for Skin Diseases; Surgeon to Moorfields Ophthalmic Hospital.

It will, Sir, I think, have been obvious to most that two principal ideas ran through the remarks which I had the honour of addressing to the Society in introducing this discussion. The first and most important was, that syphilis depends upon the introduction into the system of a living material which is capable of self-multiplication, which breeds in the blood and tissues, and which is destined to pass through various stages of development, and finally to die. My second idea was, that, in order to the correct clinical comprehension of all that follows on syphilitic poisoning, we must admit, in connexion with the phenomena which rank as its direct results, certain less closely associated peculiarities of inflammation and of cell-growth. In this way, I tried to show that soft chancres might result from contagion with pus produced by syphilitic inflammation, but not actually containing the syphilitic sporules; that phagedæna, in like manner, might produce a contagious secretion, but not a syphilitic one, and that it might wholly escape the restraint of the specifics for syphilis, and that a gumma might grow long after the patient had ceased to possess, either in his blood or tissues, the living virus of his original malady. These various events were, I suggested, to be reckoned rather as adventitious to the syphilitic fever than as true parts of it; and to the later forms of gumma, etc., known as tertiary symptoms, I thought the name "sequelæ" the most appropriate, meaning by that term that they came after the true syphilis was over, just as we know that as a sequel to war may come a famine, though the war itself is ended. It will, I think, be readily granted, that the correct appreciation of the relationship of the soft sore, of phagedæna, and of tertiary symptoms, to syphilis itself, is all-important as regards our insight into the kinship of the latter to other more short-lived exanthems. If the tertiary symptoms are not, in a strict sense, a part of syphilis, and if in reality the latter be usually over in a year or two from its outset, we are able at once to realise much more easily the kinship referred to.

Now, in looking back on the very important criticisms which have fallen from the various speakers who have so ably sustained the debate which ends to-night, I find, on the whole, a considerable amount of concurrence in the views expressed; by no means, however, without some expressions of misgiving and dissent. By one or two it has been hinted that there is no proof of the existence of a germinal poison as the cause of syphilis; others have thought that the analogy with specific fevers has been pushed too far, that the stages of syphilis are so irregular that they can scarcely count as such at all, and that it is wiser to speak of the disease as one whole; whilst many have expressed doubts as to whether it be possible for any results to persist unless the blood still continue tainted. To take the first of these objections, I have to reply to Mr. De Méric—who reminded me that the germ-poison of syphilis had never been put under the microscope—that surely there are cases where deduction amounts almost to proof. With regret I admit that I have never seen with my outward eye the cryptogamic germ-poison of syphilis; but to my mind's eye it is as certainly present as if I had. Some one will see it some day, for it is beyond doubt that it must be there. I would even venture to suggest that it might be wise to anticipate discovery a little further, and to speak of this *contagium vivum* as the

syphilitic yeast, so that we may force our minds to keep clearly in view the possible developments of this theory both as regards the inherited and the acquired disease. When a better theory is forthcoming, we may lay this aside, together with the forms of phraseology which it has brought in; but I cannot but note, as a remarkable result of this discussion, that, despite certain objections to this, there seems to be no other theory in the field. For the present, to abandon the germ or yeast hypothesis of syphilis would be to throw the subject back into confusion; for it, as far as I can see, is the only clue which we possess to the orderly arrangement of our facts. Whether or not it will, when carefully developed in detail, be proved sufficient to explain all the facts, is the problem which confronts investigators. For myself, I may admit that the result of this debate has been to strengthen my belief that it is not probable that it will ever be supplanted. I have failed to see what those who suggest that the analogy with the exanthems has been pushed too far have advanced in support of their criticism. I can only again express my conviction that the more the facts as to syphilis are examined, the more clearly it will appear that, when allowed to develope without interference by specifics, its stages are very fairly regular, whilst the more we know of the other exanthemata, the more willingly shall we admit that theirs are by no means so definite and precise as we are accustomed to assume. Whether or not it results from our habit of prescribing remedies from which no very definite effects are expected, I cannot tell; but certainly it seems wonderfully difficult to persuade ourselves that mercury really does interfere with the development of syphilis, and that it is hopeless to attempt to get correct ideas of the natural course of the malady, if we investigate cases in which it has been used. Amongst the facts which chiefly impressed on my own mind the lesson that syphilis, when let alone, is really a very orderly disease, were the two now well-known series of cases in which, some years ago, I had the opportunity of examining a number of patients who had all at certain definite dates been made syphilitic by vaccination. In the first of these, about ten persons had indurated chancres on their arms at the same time, and due to the same cause. I do not think that any two of their sores varied more than a week in stage of progress from each other. The similarity in date of induration, etc., was most remarkable, and quite as definite as would have been the phenomena of vaccination or of small-pox in a like series of cases. In my second series, the stage of the disease was further advanced before the accident was discovered; and here, again, we found syphilis very regular, since case after case was hunted up and found to be in almost exactly the same stage as its fellows.

If, however, mercury be given, the course of things is wholly altered, and it depends upon circumstances whether the exanthem stage be wholly prevented or only very much deferred. In a case in which mercury was begun early and continued for six months, I have known the rash, which would otherwise have come within six weeks, deferred till the end of the period named. Here I am obliged to interpolate that I did not exactly see Dr. Farquharson's meaning, when he said that mercury makes syphilis more regular. That it makes it milder is undoubted, and that it makes its stages, as a rule, much shorter is most undoubted; but I feel sure that, in certain cases in which it fails to cure, it may greatly protract the malady by increasing the distance between its stages. The theoretical explanation of this is, that it probably prevents the development of the yeast in the blood; and, if it do not wholly kill, it leaves it still able at some future time, when the antidote has been laid aside, to resume its growth. In connexion with this theory, I wish to direct attention to a most important suggestion which fell from Dr. Broadbent, and which was especially welcome as a striking exception to the remark I have just made as to the general incredulity now prevalent as to positive therapeutics. Dr. Broadbent remarked that, now that it has been proved that mercury is an antidote for syphilis, and made probable that the syphilitic virus is the same in its nature as those which cause the exanthems, we ought to again make careful trials of that and other specifics for them. The same thought has often occurred to my own mind. If mercury can kill or retard the development of the yeast-plant of syphilis, it is very probable that it, or the iodide, or some similar remedy, may do the same for the yeast of typhus, typhoid, or small-pox. We must not assume that this question has been set at rest by any trials which have as yet been made; for they have not, I think, been carried out with sufficient care. It will be desirable to ascertain carefully, beginning at the very earliest possible period, whether the evolution of the disease, as tested by the temperature and other symptoms, can be modified; whether the stages can be protracted; and, this point having been set at rest, we must then inquire whether such retardation is, on the whole, for the good of the patient, and to determine the clinical details as regards the effects. It is quite possible that the same remedy may be very useful in one mode of administration and very hurtful in another; and thus the statistics *en gros* of recoveries and deaths under mercurial treatment which have been collected hitherto may have no close application.

The discussion which has taken place as to when syphilis ceases to be a blood disease has been important; but it has been in part based upon a misapprehension, and it has elicited expressions of opinion rather than facts. There has been, I think, a general tendency to hold that it is probable that, so long as any manifestations whatever exist, there must be a blood-taint. Several speakers have seemed rather to deprecate the attempt to mark out stages at all. Thus, one to whom the subject is very greatly indebted—Dr. Wilks—said that for him, when a patient had syphilis, he had syphilis; and another of high position in the profession informed us, apparently without regard to stage, that syphilis was not so much a blood disease as a flesh-and-blood disease.

Now, in reply to these criticisms, I cannot but think that it is consistent with fact to divide syphilis into stages; and that the degree in which the blood and tissues are relatively affected by it differs very much at the different periods. No one probably will deny that syphilis, whilst breeding in the early periods of the chancre, is a tissue disease only—its yeast is not yet free in the blood; then follows a period when the blood is its home, as may easily be proved by inoculation experiment. The blood cannot be infected many days—probably not many hours—before the poison finds its way into the tissues; and the misapprehension to which I have just adverted consists in that some speakers have seemed to suppose that by blood disease was meant one in which the blood alone showed. I really cannot admit that the terms I used afford any ground for such misapprehension; for the very pith of my argument as regards the symmetry of the phenomena in the secondary stage was that the tissues became infected by the germ-carrying blood. Of course, in its secondary or exanthem stage, syphilis is a flesh-and-blood disease, or, rather, to denote sequence accurately, a blood-and-flesh disease. But in the primary stage it was local; and it is very possible that in the tertiary stage it may be local again. In other words, the poison or yeast may have died out of the rapidly changing blood, whilst it, or perhaps its results, are still present in the solid and less mutable tissues. To determine this, we want not opinions, but facts.

Now, there are several kinds of facts by which the state of the blood in syphilis may be estimated. First, we have its contagious properties or inoculability. This is conclusive; and it is quite certain that, during the secondary stage, the blood is contagious. The numerous accidents in vaccination and otherwise which have occurred during this stage have fully proved, both for the acquired and inherited forms, that the blood may be rich in contagious material, even when the patient displays no external symptoms. Although, as a rule, when the blood contains the poison it will produce an eruption, it by no means invariably does so; and it may perhaps be admitted as probable that the blood continues to be contagious for a certain period after the external phenomena have ceased. How long is that period, and within what limits may its duration vary? That is the question before us. Most unfortunately we are precluded from experiment; for syphilis is with great difficulty communicable to the lower animals, and it is not easy to find conditions under which, in the human subject, such procedures would be justifiable. Availing ourselves of such facts as accident throws in our way, I believe we can produce but little evidence in favour of prolonged contagiousness of the blood. All the accidents occur during the year or eighteen months which we count as the secondary stage, and most of them in the early part of it. There is every reason to believe that, in the tertiary stage, neither the blood nor even inflammatory secretions produced by sores which still bear the specific type can produce the disease. Our next test is the possibility of reproductive transmission; and I note that almost every speaker has been inclined to assert that the production of a tainted child must be regarded as proof of blood-poisoning still extant in the parent. This may be

so; but I cannot help the conjecture that it may be possible for the germs to still hold possession of cell-structures of the ovary or testis when they no longer exist free in the blood. That such is the case cannot be proved, and must rest for the present as mere conjecture. It becomes, then, of great importance to answer the question—How long after the secondary stage is it possible for syphilis to be transmitted hereditarily? During the last few weeks I have gone through the notes of a great many cases, in order to get data for a safe reply on this head, and with the result of a strong impression that we have much exaggerated our estimates of the time. The cases in which syphilis is transmissible by inheritance for more than a year or two after its secondary stage appear to be very exceptional. I possess notes of a few in which successive children, during a period of seven or even ten years, have presented evidence of taint; but the ordinary course certainly seems to be that the first two or three children suffer, and that the others escape. Unless the risk of hereditary transmission did really cease early in the vast majority of instances, infantile syphilis would be far more common than it is. It will be readily seen that our decision on this point is not a mere matter of speculation or of transcendental pathology, for upon it must rest the advice which we give our patients in reference to marriage. Now, I have for long made it a rule, when consulted on this point, to insist that before marriage a period of two years should elapse from the last of what I have considered blood-symptoms. I have given this opinion to a great many persons, and may confess that it has been a constant source of anxiety, lest some day some one should bring me a snuffling, spot-covered baby, and say: "See here! you said I might marry: just look at this!" Such an occurrence has, however, never yet happened to me. I may strengthen the bearing of this fact by adding that I have been cognisant of not a few cases in which the marriage took place at a much shorter interval than had been advised, and yet healthy children were produced. I repeat, then, that there is reason to believe that the instances of liability to transmit to offspring extending over periods of several years are exceptional, and are by no means to be dealt with as if they illustrated the rule. There are, moreover, numerous fallacies to be carefully kept in mind in investigating cases of the supposed unusual prolongation of this risk. There is the certainty, to which I shall have to allude directly, that the mother becomes contaminated by her fœtus, and thus, if healthy before, supplies a new starting-point for the infection of future children; and there is always the risk that one or other of the parents may have contracted the disease a second time.

Thus, then, we have clearly a period of syphilis during which the original sore is contagious; a period during which the blood and tissues are contagious; and a period during which transmission to offspring is possible. It is doubtful whether or not the two latter cease simultaneously, but there is some probability that the last remains the longest; both, however, in almost all instances, end within comparatively short periods.

Let us ask, next, how it is with the symptoms which we rank as tertiary. Here we find a totally different law. The liability to them persists after the longest periods of apparent immunity, and after a whole family of healthy children have been produced. Nor are such cases rare; they are almost the rule. I am obliged, then, to again ask the question—Is it not far more probable that such symptoms result from changes in the solids which have taken place during the protracted secondary stage, than that they are consequent on a blood-taint still in activity?

At this point, the argument receives, I cannot but think, great support from the general fact that everything in the secondary stage is symmetrical, and everything in the tertiary unsymmetrical. The inference suggested from this is that the phenomena of the tertiary stage, not unfrequently single, are of local origin, and possibly not unfrequently acknowledge accidental causes; whilst those of the early are due directly to the circulation of poisoned blood. Now, I must confess that I have been a little astonished at some of the opinions which have been expressed during the debate on these facts as regards symmetry, and the inferences from them. One speaker, if I did not misunderstand him, thought it a novel statement that symmetry after all did not mean anything more than that the poisoned blood circulated equally in the two halves of the body. Now, so far from this explanation being novel, it is precisely that which gives the symptom its value. Others have alleged that, after all, secondary syphilis is not so very symmetrical, and Dr. Moxon has explained to us that, although it is symmetrical, yet its symmetry has no meaning, since it is invalidated by the "fallacy of universality." To those who doubt the fact of its usual symmetry, I have to say simply, Strip your patients and inspect them in a good light; and, if this be done, I cannot conceive that there can be any doubt on the matter. Allowance must always be made for slight deviations from exact parallelism, for neither the spots on the wings of a butterfly nor the markings on a spider are ever absolutely symmetrical. It is recorded of a Dutch gardener that he caught a boy stealing apples, flogged him, and shut him up in one of his summer-houses; and that, having done this, his mind was so much disturbed by the interference with the symmetrical plan of his garden, that he could get no peace until he had flogged his own boy and locked him up in a corresponding building. I was careful in my introductory remarks to say that we must not expect from Nature symmetry of the Dutch garden type. That in secondary syphilis the sameness in extent and location of the phenomena on the two halves of the body is such as ought to be quite conclusive as to its meaning, I fearlessly assert. To Dr. Moxon I reply that, if an eruption be so universal that you cannot judge of its symmetry, that the fact of universality teaches pretty much the same lesson, and cannot often be explained on any other hypothesis than that of blood-contamination. Those, however, who are familiar with the syphilitic exanthem know that it is not often universal, and that its symmetry is constantly seen in the most definite manner in cases in which it is only scanty. Sir William Jenner, directing his argument in the same direction, has told us that the rash of typhoid fever, a blood disease, is not symmetrical; whilst common psoriasis, the patches of which are usually symmetrical, is a skin disease only, and may be produced by local causes. Now, there are few authorities to whom I would with greater pleasure yield my opinion, if I could, than to Sir William Jenner, but in this instance I am obliged to dissent somewhat from both his statements. If the rash of typhoid be really not symmetrical in any other sense than that it is often ill characterised and difficult to see, it is a very extraordinary fact in pathology, and is well worthy the most attentive scrutiny of this Society. On the other hand, taking psoriasis as the very type of a symmetrical eruption, I must assert that it is probably not a mere skin disease, and that it cannot be evoked by local causes. The influence of varying states of health and age of lactation, etc., in producing it, and its cure by arsenic, seem to prove that it is constitutional in origin; whilst, if it were ever due to local causes, it could certainly never, under such circumstances, become symmetrical unless the irritation were equally applied on the corresponding parts.

Amongst those who have produced evidence in favour of the assertion that the phenomena of tertiary syphilis are, as a rule, non-symmetrical, my thanks are chiefly due to Dr. Moxon, whose facts derive additional value from the circumstance that he is an unwilling witness. Could anything be more conclusive as to the general fact on this subject than that a pathologist so able and zealous as Dr. Moxon, with Guy's Hospital as his field, mentions to us four cases of symmetrical tertiary syphilis, and four only? If the facts were as he wished to imply, that no great difference in this respect could be established between secondary and tertiary symptoms, he would easily have been able to give us 300. I have myself repeatedly published cases of symmetrical tertiary syphilis, but the interest of the cases consisted in the fact that they were exceptions to the rule. It must be obvious that there is no law to prevent tissue disease, such as I hold tertiary symptoms to be, from being symmetrical: on the contrary, the wonder is that they are not more often so, resulting, as they do, from long-standing disorder of nutrition which was caused at a time when the blood was tainted. So much the more significant is the clinical fact that, as a rule, they are not symmetrical. In repeating this assertion of their almost constant non-symmetry, I am speaking of the later tertiary phenomena, and chiefly of such as paralysis of the nerves of the eyeball or face, gummata in the tongue, muscles, or cellular tissue, and periosteal nodes.

Having mentioned Dr. Moxon's clever and amusing speech, it may be convenient here, perhaps, to conclude my reference to it, and to say that I am glad to find that he supports the exanthem doctrine of syphilis. I spoke of syphilis as a slow-staged or long-staged exanthem, and he calls it an "exanthem diluted by time." As to his suggestion that tertiary growths

have their seat in portions of new matter, which, by some means, have got introduced into the system without parentage, and, therefore, without inheriting any degree of immunity, I shall prefer to avail myself of its ingenious author's permission to say nothing about it, and shall await with interest its further development.

It has been mentioned prominently, as if it constituted a real difference between the exanthems and syphilis, that the former are not capable of transmission to offspring. The reply to this is, that such transmission is possible only during the period that the specific poison is living in the blood and tissues; and that this period in the more acute exanthems is very short, whilst the patient's condition during it is such as to utterly preclude the possibility of his becoming a parent. We cannot too clearly keep in mind this fact of extreme difference in length of stages, for by it are to be explained not only the possibility of hereditary transmission, but the liability to tertiary disease.

The statement made by the same authority, that syphilis differs from the other exanthems in having no pyrexia, I may conveniently answer by quoting from Dr. Buzzard's speech at an earlier meeting. Dr. Buzzard, apparently as familiar with the earlier or surgical stages of syphilis as he is well known to be with those in which the nervous system suffers, spoke of fever as being "so significant a part." In point of fact, the pyrexia in the exanthus stage of syphilis sometimes runs high, and is probably always present more or less. I have known a patient almost die during it.

Amongst the important matters brought prominently under notice during this discussion is the fact that there exist two schools of opinion as regards what takes place in the transmission of syphilis from parent to child. In the past, some—perhaps most of us—have held in a muddled sort of way both doctrines, and have allowed them to mix themselves up in a somewhat incongruous manner in our expressions and forms of belief. I cannot but regard it as a great gain that the two are now fairly confronted, since, without presuming to assert that they are incompatible, it seems very improbable that both are true. The one, which is the creed of those who think that syphilis is due to a sort of yeast germinal matter, holds that transmission is effected only by transference from parent to child of germs; that it is, in fact, contagion to the ovum. Thus, unless such infectious matter pass with the sperm or germ, no transmission of the disease will take place, and a child perfectly healthy, *quoad* syphilis, may be born, and transmission thus becomes to a certain extent a matter of chance, and by no means subject to the laws of ordinary heredity. The other view, which, with the clearness and ability which characterise all that he teaches, was expounded by Sir William Jenner, makes the transference of syphilitic taint from parent to child but an example of heredity, in the same way that colour of hair, texture of skin, etc., are transmitted. "Potentiality of development, then, and not the state of the blood; not any appreciable change, is the real pathology, it seems to me, of infantile syphilis." I am quoting Sir William's exact words.

Let me try to state, as briefly as I can, a few of the facts in reference to these two doctrines. When syphilitic parents procreate, a not uncommon result is death of the ovum at very varying periods of intra-uterine life, a circumstance probably to be explained more often by disease of maternal structures (of the placenta) than by bleeding of syphilitic virus in the infant. In another group of cases, the infant is born apparently healthy, but sickens rapidly, and, without any of the ordinary evidences of syphilis, but with possibly a pemphigoid eruption on the hands and feet, dies in spite of all treatment in a few days. It is very difficult to say what happens in these cases, or in what way death is caused; they are rare. Lastly, we have the common well-known result that a fine healthy infant is born at full time, which at the end of a month begins to snuffle, and a few weeks later shows a symmetrical rash closely similar to that seen in the acquired syphilis of adults. These symptoms are, as in the adult, amenable to treatment, and also subject to the law of spontaneous disappearance after a definite duration. It is remarkable that the period which intervenes between birth and the full development of the exanthem stage, is exactly that occupied by incubation in the case of acquired disease, and the conjecture is forced upon us that the development of the yeast in the child's blood is restrained during intra-uterine life, and commences only with the function of respiration. The phenomena which ensue are those of a specific fever, and in no respect resemble those of development. If aberrations from normal development are ultimately produced, peculiar physiognomy, malformed teeth, etc., they are always in ratio with the preceding infantile inflammations, and are probably directly produced by them. If a syphilitic child in infancy escape syphilitic inflammations, its development will probably be in no respect peculiar; it may grow well, and present every appearance of excellent health. Thus far, then, we may assert, that what happens to a syphilitic infant is closely similar to what occurs in the acquired disease, and suggests rather the breeding of specific poison in the blood and tissues, than the inheritance of "potentialities of development." It may be added, that, were the latter creed the true one, we ought to find children inheriting the disease at a special stage, to which it had attained in their parents; whereas, this old opinion is now generally discarded, and it is acknowledged that, whatever may be the stage in the parent, the child will begin again at the early secondary period. If the doctrine of yeast-contagion to the ovum be the true one, we ought to find no shading-off in degree of severity of transmitted taint—the child must inherit the whole of syphilis or none; whereas, if the other view be correct, we should expect the most various gradations, the severity being in relation with the parent's state. Now, I believe that the general—perhaps the universal—opinion held at the present time is, that inherited syphilis does really shade off, so to speak, in the younger children. On former occasions, I have myself used expressions favouring this view, and, if I now discredit it, I fear I may encounter some suspicion if allowing my theoretic belief to influence my interpretation of fact. I may, however, assure the Society, that, although I have admittedly changed my opinion on the suggestion of theory, I have not allowed myself to do so without collating very carefully the evidence afforded by the histories of some scores of syphilitic families. It appears to me, as the result of this study, that there is no proof of the transmission of minor degrees of syphilis, and that what we witness in children is rather exactly parallel with what we observe in the acquired disease, *very variable severity in different individuals*. If the real facts as regards the natural history of syphilis could be obtained, we should probably find that a considerable proportion of those who pass through the syphilitic fever after chancre-contagion, do so without rash, without sore throat, without, indeed, any visible symptoms, and that this is by no means dependent upon the treatment, but rather upon some peculiarity in the patient's organisation, or some arrest in the development of the yeast poison. If this be the case in the acquired disease, we need not wonder that many infants who yet show evidences of taint in later life, escape the ordinary *rôle* of symptoms during the first few months of the first year. I have notes of many families in which some suffered and others appeared to escape; and although, as we should expect, it is the rule for the eldest to suffer most severely, there are so many exceptions to this, that I do not think we can infer anything as to diminished intensity of the poison. We ought rather to say that it is the rule for the eldest to suffer most often, and that the chance of total escape is increased with each successive year. As the rule, the younger members of syphilitic families show no traces of the disease whatever, and appear to have escaped entirely. Lastly, it may be remarked, that if the inheritance of syphilis were an inheritance of "potentialities of development," and not, as Mr. Simon has so well expressed it, of "a material something which passes absolutely and bodily into the infected ovum," we should expect to have mixed and ill-defined results. We should see the syphilitic potentiality mingling itself with others and producing hybrid diseases. And, further, one scarcely sees how, on such a hypothesis, a syphilitic parent should ever have healthy children, or why his younger ones should suffer less than his early ones. Admitting that the subject is one of much difficulty, and that further investigations of fact are needed, my conclusion still is for the present a tolerably confident one, that the transmission of syphilis to children is like that from person to person in the acquired disease—a communication of special germs; and that there is no such thing as the transmission of less or more: that the fœtus either gets syphilis in the full or not at all.

I confess that it seems very difficult, taking this view of the mode of transmission, to believe it possible that the germs received in utero can survive long enough to be transferred to a third generation. For this to take place, a period of vitality of nearly twenty years must in most cases be presupposed, and this is, I believe, far longer than can be proved in the case of the acquired disease. Facts bearing on the point are very

few in number, and most of them negative. Mr. Simon mentioned briefly the other night one which seemed to favour it. Some years ago I recorded a number in proof that those who had suffered severely might yet bear healthy children, and with them one which might be considered to bear in the other direction. The fallacies are, however, almost insurmountable.

Whilst urging that the kind of poison communicated in parental transmission is probably just the same as that conveyed in chancre-contagion, we must not forget that there are possibilities of difference, to fully appreciate which a knowledge of the laws of cryptogamic life, rather than of heredity, is needed. To this important topic Mr. Simon and Dr. Greenfield both alluded; but I shall be best able to illustrate what is meant if I may be allowed to pass back to the speech of Dr. Broadbent. Amongst certain difficulties in the way of accepting the theory that tertiary deposits only occur where secondary disease has preceded them, Dr. Broadbent mentioned the well-known opinion that a healthy woman pregnant by a syphilitic husband may acquire the disease from the fœtus, and pass at once to the tertiary stage, having never suffered from any secondary symptoms whatever. My reply to this would be that in such cases the "tertiary symptoms" are never displayed early; that they follow, as in other instances, after long intervals; and that the cases are probably examples of the secondary stage being passed through without external signs. This subject is, however, far too important and too curious to be thus dismissed. If what seem to be facts respecting it be really credible, we appear to have a wholly novel phase of the subject opened out to us in this direction. It has long been believed by many that the mother might become diseased by absorption direct from the blood of the fœtus, and without the intervention of any chancre. It is just twenty years since I wrote a paper on this subject, and collected a good deal of evidence concerning it. My conclusion was, as stated by Dr. Broadbent, that in these cases the woman never suffers from secondary symptoms, and experiences nothing during the pregnancy which infects her, excepting, perhaps, a little loss of strength and slight indefinite ailments. In further proof that she does really contract something, I made use of the well-known observation of Abraham Colles that syphilitic infants nursed at the breast often infect wet-nurses, but never their own mothers. I did not, however, until within the last few weeks, fully appreciate the bearing of this fact. If Colles's law be one which has no exceptions, it follows that all women who bear syphilitic children contract syphilis; for how else can they obtain immunity? And, since it is notorious that women under such circumstances scarcely ever show secondary symptoms, it follows, further, that we have here a form of syphilis which is protective, but which is unattended by any cutaneous outbreak. Thus syphilis acquired by blood-contagion from the fœtus would appear to be, for the mother, a parallel with vaccination in regard to small-pox: she gains immunity without suffering from any severe form of disease. The botanist will at once suggest that probably in both cases the explanation is to be found in heteromorphism or alternation of generations on the part of the fungus. To him the clinicist might aptly rejoin, that really one might almost have expected it; for, when the mother gets syphilis from the fœtus, she obtains it from fluids in which the plant-life is evidently under some very special restraint; for in the fœtus itself, as a rule, no development of it takes place during the nine months of intra-uterine life. We have only to suppose that the same condition of the yeast which existed in the fœtus is perpetuated in the mother, and the thing is done. We had no right to suppose that infection by inoculation of solids (or chancre-contagion) would be exactly the same in its results as direct imbibition by the blood.

As we may call vaccinia undeveloped yet protective variola, so we may consider syphilis derived from the fœtus as an undeveloped yet protective form of that disease; and we have here another most interesting point of analogy between syphilis and the exanthems.

Before, however, we accept as probable such a possibility as that just hinted at, it is desirable to look at the facts with the utmost incredulity. Let us doubt unsparingly at every stage of the reasoning. First, is Colles's law true? I cannot see any escape from the conclusion that it is. It was announced in 1837, and has received, I believe, the assent of every authority who has written on the subject since. It has attracted attention both at home and abroad, and I am not aware that a single exception to it has been recorded. We have all of us seen chancres on the nipples of wet-nurses. They are, indeed, not very infrequent. We have, however, none of us seen such on those of the mothers of infected children. Let us remember that it is very unusual to put a syphilitic infant out to wet-nurse—a thing which no prudent surgeon would ever permit—and that probably, for one so nursed, a hundred are suckled by their mothers; and we shall appreciate the weight with which this entire absence of proof that mothers ever suffer bears. It amounts, I think, all but to proof that they are absolutely insusceptible. It is as strong in that direction as is the rarity of small-pox within short intervals after successful vaccination. We must remember also that these mothers of syphilitic infants not only nurse one infected child, but often several in succession; that they not only suckle them, but handle them, dress their sores, and in various ways through long periods expose themselves to risk. If it be granted that it is proved that these mothers—a very numerous class—have really in some way had syphilis and acquired immunity, I do not think there can be much dispute as to the next fact, that they do not during pregnancy show any of the usual symptoms of the disease in its secondary stage. This is a matter of every-day experience. There remains, however, the possibility that the syphilis may have been gone through prior to pregnancy; and I am well aware that the few remaining writers who teach that syphilis can be inherited only from the mother will hail this confirmation of Colles's law as a strong support for their opinions. Here, however, again I must appeal to every-day experience. Is it not the fact that women bear syphilitic children without having ever themselves, either before or during pregnancy, had any symptoms, either primary or secondary, of that disease? If this happened only once or twice we might reasonably doubt the histories given us. But it is not so,—it is in hundreds of cases; and few, I think, of much experience can doubt that, as a rule, syphilis is inherited from the father, and that the mother never shows any external signs of the malady. I propose shortly to publish the evidence which I have collected on this and some kindred subjects; and the assertions just made will, no doubt, receive the scrutiny of other observers. If the argument should in the end be thought to be substantiated, some other very interesting questions will suggest themselves. We shall have to ask, What are the ulterior liabilities of a woman who has thus acquired the modified form of syphilis? Can the taint be transmitted from her to offspring borne subsequently to a healthy father? Is her blood at any period contagious? and what would be the result of inoculation with it? Does the taint in her last as long as when the disease is acquired in the ordinary way? I have already, in speaking of the difficulty of measuring the length of time during which it is possible for the tendency to transmit to offspring to last, adverted to the fallacy introduced by the fact that usually the mother acquires the disease from her first pregnancy, and may herself become the source of contamination in the second. We must not, however, take it for granted that a taint acquired in this peculiar manner is transmissible, or, at any rate, that it is so for any long period of time. It is quite possible that its stages may be far shorter than those of the common type of the disease.

Here, Mr. President, I will ask permission to leave the proper topics of reply, and to make a suggestion. It is this: that our next debate should be on the laws of evolution of the exanthemata. Surgeons have been asked to make a clean breast of it as regards syphilis; and we have told all that we know, and much, perhaps, that we only half know. Let us next solicit of Medicine a similar declaration of faith in reference to the most interesting part of her proper domain. There are a host of questions upon which we surgeons, out of pure scientific curiosity, and with no wish to intrude into medical practice, are longing to be enlightened. By what right does diphtheria claim its place as a specific fever? If the rash of typhoid be not symmetrical, on what pattern, and by what influences is it arranged? What is the interpretation of the curious phenomena of corymbiform variola? If a pregnant woman suffer from an exanthematic fever, what are the possible events as regards the fœtus? and does it ever happen under such circumstances that the infant developes the disease, as in the case of syphilis, soon after it gains access to the light? Are not the stages of the exanthemata far less accurately determined and much more liable to variation than is generally admitted? May not varicella, for instance, vary in its incubative period from fifteen to twenty-seven days? and in its exanthem period from four (the average) to fourteen or twenty days?—limits of variation wider than

we need claim for syphilis. Is it possible to convey the disease by inoculation with varicella fluid?—a fact denied by most writers, but affirmed by the latest without the citation of any evidence. Is it not probable that cases are very common in which patients go through specific fevers and acquire protection without having had any rash or shown any external symptoms? On these and many other important topics medical opinion is, I believe, very far from being settled; and their investigation might, perhaps, have the collateral advantage of diverting the zeal of our medical friends (excepting in the post-mortem room, where they are always welcome) from the one specific fever, which is all that the surgeon can claim as his. To speak seriously, it has sometimes struck me forcibly that, in comparing syphilis with the exanthemata, the large amount of uncertainty which still surrounds the latter is a most serious bar to progress.

Amongst the more important of the questions which have been put to me in the course of the debate, I find one in the very suggestive speech of Dr. Greenfield, as to whether there may not be some after-results of syphilis which are to be classed rather as those of malnutrition than as consequences of the specific poison. He illustrates the question by asking whether all the children who suffer from keratitis have really had syphilis, and whether it may not, in some cases, rank rather as a defect in nutritive power. To this I may give a clear reply, that I believe that all the conditions which we have as yet recognised as syphilitic, whether in the acquired or the inherited form of the disease, are the direct results of the disease. A severe attack of syphilis may, of course, damage a man's nutritive power, but as the result of such damage we shall not encounter anything in the least special; and it is quite impossible that he should, in virtue of such, transmit to his children a state of cachexia rendering them liable to such a disease as interstitial keratitis. The latter malady cannot, I feel convinced, occur to anyone who has not had syphilis. Interstitial keratitis also obeys the usual law of syphilitic inflammations in always showing tendency to spontaneous cure, which would scarcely be the case if it resulted from defect of nutrition. There is, however, a rare form of choroido-retinitis, which is steadily and slowly aggressive, much like a degenerative affair; but I suspect that it is secondary to damage done by previous inflammation, otherwise it might seem to be an example of what Dr. Greenfield is seeking for.

The peculiar relationship in which the gumma, the soft sore, and phagedænic action stand to syphilis, have perhaps been sufficiently discussed. I may note, however, that, with the exception, I think, of Mr. De Méric, no speaker has attacked the dogmatic assertions which I very purposely made as to my belief in the essential alliance between phagedænic and syphilitic inflammations. I was very anxious to attract attention to this subject, believing it to be of great clinical importance. I have long held, and publicly taught in the most positive manner, that, certain very rare cases excepted, all well-characterised phagedæna may be traced to syphilis; and that it is from the contagion by pus from syphilitic sores (mostly tertiary, and not containing the specific virus) that hospital phagedæna takes its rise. You, Mr. President, can, I know, give us some valuable evidence on this point; and as I hold that its knowledge is of great importance, in order to the prevention of epidemics of phagedæna, both in military and civil practice, I rather regret that it has not, on the present occasion, had the benefit of more criticism. Mr. De Méric had somewhat misunderstood my meaning, and seemed to think that I held syphilitic phagedæna to be incurable, which was very far from what I intended to say. I should be very glad if I could believe that the silence of other surgeons implied acceptance of my creed.

As a curious illustration of the difficulty in making one's meaning clear, I find that I have been criticised by Mr. Wood and others for attempting, as they think, to define too closely the stages of syphilis, whilst Mr. De Méric complains that I have shown too great a tendency to put the whole disease in one lump, and expresses his preference for the doctrine of stages. I cannot defend myself on this point from either critic without recapitulating almost the whole of my address—a task which the Society will, I am sure, gladly excuse me. Briefly, however, I may say that I consider the several so-called stages of syphilis as in part natural and in part conventional, and that I have not the slightest wish to make them more definite than is required by clinical convenience or suggested by pathological probability.

Amongst the chief contributions to facts, we must place Dr. Buzzard's valuable statistics as to the average age of those who suffer from disease of the nervous system, Dr. Hilton Fagge's statements as to the frequent alliance between syphilis and amyloid disease, and Dr. Greenfield's account of certain pathological details. Dr. Moxon has also mentioned some interesting examples of symmetrical tertiary growths; and Dr. Greenfield has recorded a post-mortem examination in the secondary stage, in which gummata were found in the dura mater. I am sanguine that, hereafter, many of the topics which as yet have been only debated will be examined by the light of accumulations of new facts, otherwise some regret might perhaps be felt that, following my own bad example, most speakers have contented themselves by expressions of opinion.

The possibility of diagnosing syphilis by the odour of the patient was adverted to by Sir William Gull. The late Mr. Wormald used to teach that this was possible, and was fond of saying "They can't deceive me; I nose 'em." It probably requires a very good sense of smell to make much use of this symptom. For myself, I may confess that I have rarely been able to distinguish anything peculiar in the odour of adults suffering from syphilis; but in infants I think it is often very perceptible and quite special.

In answer to the numerous surgeons who have requested further details as to my disbelief in dualism, I may briefly say that, although of course we must all fully recognise the differences between hard and soft sores, yet I do not think that the soft is a special form of disease. On the contrary, I believe that it is usually produced by contagion with the results of syphilitic inflammation; and that, if we could get rid of true syphilis, we should after a while cease to see examples of the soft sore also, with the exception of those which result from common inflammation, balanitis, and the like. My views on this point are explained in detail in a lecture published in the *Lancet* six months ago. To those who were inclined to complain that I had said that dualism was dead whilst it is still mentioned in several standard and excellent works, I can only reply that I was careful to say only dead, and that I did not say that it was buried. Had I done so, I should have been a little premature.

I am painfully aware that in this reply I have done very scant justice to the numerous speakers who have taken part in the debate. I have, however, I hope, profited by all, and have endeavoured to incorporate in my statements to-night the hints they have given. That I have not even alluded to the splendid speech of Sir James Paget, is to be explained by the fact that we agree on almost every point; and this, again, finds its solution in the further fact that he was my teacher—not alone, as I was proud to be reminded, in general surgery, but also in the special doctrines of syphilis.

The observation made in the address as to the extreme infrequency of affections of the brain and nerves in inherited syphilis has been confirmed by Dr. Buzzard and all speakers who have adverted to it. As none have mentioned facts in opposition, I think we may now regard it as generally admitted. I am not sure but that some statements which have been made may even help to explain it. Dr. Buzzard and Dr. Greenfield have both called attention to the probability that the tertiary growths take place in perivascular spaces and other adjuncts of the lymphatic system. Professor Sigmund, of Vienna, has also, during this discussion, in a paper published in the *Practitioner*, drawn attention to the circumstance that syphilis, from its beginning, shows an especial tendency to develope in lymphatic structures. Now, we must remember that this is true only of syphilis when acquired by a chancre. It is not the case when it is transmitted from parent to child, nor when a fœtus infects the blood of its mother. In these there is in the beginning no implication of glands. This may possibly be the reason why in neither of these classes of cases do we find in the later stages of the disease that liability to perivascular growths and gummata which are not unfrequently witnessed as results of the chancre form of syphilis. It appears highly probable that we have to deal with syphilis in two or three (perhaps more) different moods, varying according to the precise manner in which the transference of the yeast-poison is effected, and the structures into which it is first introduced. In connexion with these differing moods different classes of sequelæ must be expected.

Dr. Wilks, Mr. Berkeley Hill, Dr. Buzzard, and others, have adverted to the interesting fact that serious tertiary symptoms are not unfrequently met with in those who have

suffered but very little in the earlier stages. This is to be explained probably by several different considerations. In the first place, it is true only of a certain class. Some of the very worst examples of tertiary disease in which multiple manifestations occur happen often to those who have suffered throughout very severely—who have, perhaps, scarcely ever got rid of their symptoms. Such, at least, has been my experience; and there are often patients with whom the specifics have disagreed, or who show in particular an idiosyncrasy as regards mercury. They are often very seriously out of health. There is, however, another class in which the tertiary symptoms attract much attention, and become very serious, not so much on account of their own extent or severity, but because located in an important position. A patient apparently in perfect health may have a single gumma on his brain, which may cause him most serious distress, whilst he has not about him another symptom of syphilis, either present or past. These are the cases to which I suspect allusion was made, and in these not unfrequently the patient knows but little about his early symptoms. I suspect that the real explanation of the frequency of such cases as these, and of the converse fact that those who have well-marked secondaries usually escape sequelæ, is that the latter are well treated by mercury, whilst the former neglect it.

In conclusion, Mr. President, I have to express my sense of obligation for the many valuable suggestions which have been addressed to me both in public and private during the course of this prolonged debate. I should be ungrateful, indeed, if I did not very warmly appreciate also the kind and very flattering manner in which my introductory remarks have been received as well by my friends in this room as by my critics in the medical press. It is not for me to say whether the debate will add greatly to our knowledge of the subject; but I may confess with pleasure that I have myself learned much. If it have not been a harvest, we may, I think, hope, at any rate, that it has been seed-time, and that syphilis, long ago named by one of our great masters "the key to all pathology," may in the future be found yet more useful.

THE RIBERI PRIZE FOR 1877.—The Royal Academy of Medicine of Turin has chosen for the subject of the next Riberi Prize, 20,000 francs in value, "The Pathology of the Genital Apparatus in Women." Completed treatises and monographs are allowed to compete, and the works may be either printed or manuscript. The MSS. must be written in Italian, Latin, or French, and printed works must have been published during the years 1874-76—two copies being forwarded. The works or essays must be sent in to the Academy before December 31, 1876.

DALTONISM AMONG SAILORS.—Dr. Favre, of Marseilles, calls attention to the fact that while in reference to railway *employés* the recognition of the red signal is almost the only absolutely essential point, with regard to sailors the green is just as indispensable as the red. At recent examinations of 1050 candidates for employment on railways he has detected as many as 98 Daltonians who were deceived as regards one or more colours, this occurring as regarded violet 78 times, blue 50, green 54, yellow 14, and red 10. Of the 98, 29 only hesitated, and 8 corrected their errors, leaving, therefore, 61 Daltonians. Ultimately only 11 had to be absolutely excluded; but if these men had to be examined for sea or coast service, all those who could not distinguish green ought to have been excluded also. Dr. Favre calls attention to the fact that men employed as sailors are not examined on this point, and he does not hesitate to attribute many accidents at sea to the colours of signals, light-houses, etc., being mistaken, especially in the merchant service. He lays down the following propositions:—1. All sailors having to make use of coloured signals should undergo an examination in colours. 2. Exact appreciation of red and green is indispensable, and practice in these colours should be established on all ships. 3. Sailors who have suffered from contusions or wounds of the head or eyes should be re-examined for colours. 4. Examination should be instituted after severe illnesses. 5. Those who abuse the use of alcohol or tobacco should be frequently examined. 6. A periodical examination should be instituted in the marine service. 7. In all naval schools and establishments practice in colours should be put in force. 8. The necessity of recognising green and red constitutes for sailors a minimum, which doubtless before long will be considered insufficient.—*Révue Méd.*, February 21, from *Marseille Méd.*

ORIGINAL COMMUNICATIONS.

CASE OF

NERVOUS DISORDER, CONSEQUENT UPON GONORRHŒA,

AND TREATED BY THE CONSTANT GALVANIC CURRENT.

By JULIUS ALTHAUS, M.D., M.R.C.P.,
Physician to the Hospital for Diseases of the Nervous System.

THE pathology and treatment of syphilitic nervous affections have recently been studied with great care, and many new facts have been added to our previous stock of knowledge concerning them; while much less attention has been given to those nervous complaints the starting-point of which is a protracted and imperfectly cured gonorrhœa. This insidious disease, which frequently leads to catarrh of the bladder and renal affections, appears in some instances to be almost less tractable than syphilis; and has, more especially when it occurs in those who are no longer young, a tendency by its sequelæ to lead to considerable derangement of the nervous system.

A merchant, aged forty-three, consulted me in November, 1874. He had had gonorrhœa in 1870, which was treated with injections, but proved very stubborn, as its acute stage lasted for three or four weeks, and a painless but abundant discharge continued for more than a twelvemonth. This was ultimately checked by the introduction of tannine bougies. About six months after the gleet had ceased, the patient, who considered himself cured, got married, but found that connexion produced intense pain in the back part of the urethra. On one occasion, when he had a nocturnal emission of semen, this latter appeared tinged with blood. He did not, however, abstain from intercourse, and began, after a time, to suffer from a wearying pain which occupied the whole of the lumbar region, and radiated frequently into the groins, hips, and thighs. It was generally worst in the morning, but never absent throughout the day; and was liable to be increased by all kinds of exercise, and particularly by riding in an omnibus and by railway travelling.

After a time a permanent pain became established in the urethra, and was associated with a degree of irritability of the bladder which proved most troublesome in the railway journeys which the patient was obliged to undertake frequently, and also prevented him from going into society. On several occasions, when he had been obliged to retain the water very long, he suffered from retention. He was treated with belladonna, buchu, iron, and nux vomica, and later on likewise took morphia, chloral, and quinine.

In July, 1874, all symptoms had increased so much, that the patient consulted a surgeon with the view of having his urethra cauterised. A bougie was introduced for ascertaining whether there was a stricture; and the pain caused by the passage of the instrument over the sore point in the prostatic portion of the urethra was so acute that the patient fainted away. He suffered severely for a week or ten days afterwards, and the idea of further instrumental interference was then given up.

A few months later, he came to me with the hope that an application of galvanism might diminish his sufferings. He was then very thin, with a careworn expression of countenance, and so desponding as to contemplate suicide. All interest in his occupation was gone; the appetite was bad, and assimilation imperfect. The urine had a specific gravity of 1027, and contained a great excess of urea and lithates, but no albumen, sugar, or vesical mucus. Pain in the back and prostatic portion of the urethra and irritability of the bladder were the chief sources of trouble; but there was also a feeling of great lassitude, with disinclination to any mental or bodily exertion; constant tremor, and frequent jerkings in both upper and lower extremities; shooting pains through the legs, and sensations of numbness and "pins and needles" in the feet; a flabby condition of the muscles, which appeared ill nourished and somewhat wasted; and great restlessness at night. Altogether, the patient's condition was one which, although it did not appear as yet to have passed into actual structural disease of the cord, seemed closely to approach it, and might be expected at almost any time to merge into ataxy or some similar condition.

As the patient had already taken a great deal of medicine without decided relief, and was extremely averse to taking any more, I used nothing but the continuous current in this case.

In order to improve the general condition, I induced catelectrotonus of the spine, which, in some cases, equals and even surpasses our best medicinal nervine tonics. Passes with the cathode were likewise made over the entire lumbar region, and the anode was placed to the perineum for acting on the painful portion of the urethra. The relief of pain, both in the loins and the urethra, by this method of employing the current was immediate throughout the duration of the treatment, and nothing, not even subcutaneous injections of morphia, could have acted more satisfactorily, either in quickness or thoroughness of effect; for the patient, who often came to me in great distress, invariably left me in comfort. At first the pain was liable to return within six or eight hours after the application of the current, and a daily use of it therefore appeared necessary. After a time, however, it was only applied twice or three times a week; and the patient, who made a gradual and almost uninterrupted recovery, appeared to be quite well at the end of seven weeks' treatment.

One of the chief points of interest about this case was, that a urethral pain, which was evidently owing to chronic hyperæmia of the mucous membrane with abrasion of epithelium, should have yielded to an external application of galvanism. The current evidently acted here as a counter-irritant, and although only a slight power was used—viz., from twenty-five to thirty-five cells of Becker-Muirhead's battery,—it was, nevertheless, sufficient to reduce the hyperæmia of the mucous membrane by producing dilatation of the bloodvessels of the skin in the neighbourhood. The irritability of the bladder, which was a most distressing symptom in this case, must have been owing to urethral irritation only, partly because the urine did not show any diseased condition of the bladder, and partly because the irritability of that viscus disappeared *pari passu* with the urethral pain, without being specially treated in any other manner. The total absence of painful procedures seems to constitute, in cases of this class, a real advantage of the galvanic treatment over cauterisation of the urethra, which is generally very painful, may, except in the most skilful hands, lead to stricture, and is even then by no means always effectual.

DEATH UNDER CHLOROFORM.

By HUGH RICHARD KER.

In bringing this subject under notice I have a twofold object in view. When the profession is publicly censured in the *Times* by an eminent London surgeon for employing chloroform instead of ether, it is surely time that this subject should be freely and calmly discussed, in the hope of arriving at a more satisfactory conclusion upon it. We cannot, indeed, purchase immunity from suffering without a certain amount of danger, but it is our clear duty to do all in our power to lessen to the uttermost that risk, until the glorious achievements of modern surgery shall no longer be clouded by having to record another death under the use of anæsthetics.

My second reason for wishing to bring this subject under notice is, that within the last few months I have been unfortunate enough to lose a patient whilst partially under the effects of chloroform. This reason pressed itself earnestly upon me, not only because I consider it a duty incumbent upon each one of us to fairly and carefully record the facts of each death from an anæsthetic which may come under our special notice; but also that, as I was myself fully convinced that death in my own case was not caused by the anæsthetic employed, it naturally occurred to me to ascertain whether many other cases of recorded death might not also be similarly explained.

In the limited space that can be given to a paper it would of course be hopeless, even if I were able, to deal with a subject so important as fully as I would desire. I shall, therefore, simply confine myself to a few remarks under each of the following heads, and shall then leave the subject to be, I hope, freely discussed by those who are far more competent to handle it than I am:—Is chloroform as fatal as it is represented to be? Does chloroform compare favourably with ether? What are the causes of death under chloroform?

First let us consider whether there are any reliable statistics with regard to the percentage of deaths under chloroform. After careful search and inquiry, I find that the only calculations which have been made on this head give the deaths at about one in 2500 or 3000 cases—that is, one-twenty-fifth or one-thirtieth per cent. Upon what grounds this calculation is based I am at a loss to imagine, and am bound to confess that I look upon those figures as visionary and imaginative. From all I can ascertain on this point, the numbers must assume in reality very different proportions, and consequently the percentage be much smaller than just stated. In fact, in the present imperfect condition of records, both as regards administration of chloroform in hospital and private practice, and the relative proportion of deaths, it seems to me hopeless to arrive at any exact numerical calculation. Again, there is another very important point to be considered before any accurate idea of the relative danger of this anæsthetic can be formed. I allude to a large number of cases which, I believe, are put down to deaths from chloroform, but which are emotional, such as occurred before anæsthesia was thought of. But before entering fully into this I would wish to place before your readers a few particulars which I have collected—some from published works, and some from correspondence—which I think will prove to you that I am not wrong in believing the percentage stated as much too high.

In a little work by Dr. Warren, published in 1868, and entitled "History of Anæsthetics from an American Point of View," I find the following extract from the "Army Circular" of the United States:—"In field operations chloroform was almost exclusively used. The returns indicate that it was administered in not less than 80,000 cases. In seven instances fatal results have been ascribed, with apparent fairness, to its use." This would give a proportion of one death to about 11,428.

Next I will take Edinburgh, and I find only two deaths recorded at the Infirmary since the introduction of chloroform, and only one during the last ten years. The amount used is evidently immense, but there are no data from which the exact number of times it is given annually can be ascertained. I am, however, informed that it certainly averages ten times daily, which would afford a result of 3650 yearly. The quantity used in the Infirmary is stated to be 365 bottles, each bottle containing twelve ounces; and, taking the last ten years, this would be a proportion of one death to 36,500 administrations.

Turning now to the London hospitals, I find, from a paper carefully prepared in 1869 by Mr. Rendle, late Surgical Registrar at Guy's, that chloroform is administered at twenty of the London hospitals about 8000 times annually, with an average death-rate of three yearly. This would give about one death in 2666. But here, probably, the proportion of administrations is very much greater; at Guy's Hospital, for instance, they are put down at 1200, whereas from my own personal knowledge I am convinced the number is very much greater. In fact, Mr. Rendle himself acknowledges, in a letter to me, that he had the greatest difficulty in obtaining reliable information as to the number of inhalations at each hospital. He says that "even when records are kept (as is the case at Guy's) by the house-surgeon, they are very imperfect." On the other hand, there is very little doubt as to records of *death* under chloroform: they soon become known, and are published in the journals. This, however, I know to a certainty: that during the three years I was a student at Guy's only one death under chloroform occurred.

But where statistics chiefly fail is in the fact that sufficient allowance is not made for administrations in private practice. The number of these must be enormous. Only consider how extensively chloroform is used in obstetric practice; and, again, by general practitioners in the mining and manufacturing districts. These alone would swell the figures to gigantic proportions. In my own practice I have frequently administered it as many as five times in a day; and I may safely say that a week very seldom passes without my giving it more than once: and ever since I have been in practice, I am happy to say that only one death has occurred—viz., that to which I have alluded, and to the particulars of which I shall presently draw attention.

The vast amount of chloroform used is very strikingly shown by the late Sir James Simpson, who says that no less than 2,500,000 doses are annually manufactured in Edinburgh alone, calculating each dose at two drachms. Allowance, no doubt, ought to be made in this calculation for what is used internally, but I imagine it would only amount to a very small fraction of the whole. Again, if we take the published records

of individual gentlemen, we find that fatal results are not, by any means, so frequent as some would have us believe.

Erichsen, in the last edition of his "Surgery," says that Clover has recorded 3000 administrations without a single death; and he himself states that he has only witnessed one death under chloroform in twenty-five years at University Hospital. Sir J. Simpson says that he had administered chloroform several thousands of times before he met with a fatal case. Again, Dr. Carter of the "General" Hospital, Birmingham, tells me he has given chloroform 1500 times without a fatal result. But, let me now ask, are we to ascribe to chloroform itself all deaths which occur during its administration? Are we to ignore the fact that deaths—both immediately before and during operations, evincing symptoms exactly similar to those now ascribed to chloroform—took place long before anæsthetics were thought of? The idea is absurd; and yet it is evidently entertained by some.

A few cases quoted from Sir J. Simpson's paper on Anæsthesia will suffice to bring this clearly before you:—

Case 17, *page* 152.—"Shortly before the introduction of anæsthetics into general practice, in 1846, my late friend Dr. John Argyle Robertson was asked to see a case of strangulated hernia. The gentleman was removed from his bed, and placed upon a table to facilitate the operation. Dr. Robertson, before proceeding to use his scalpel, was employed in removing the hairs from the groin with a razor, when the patient suddenly complained of faintness, gasped, and died."

Within a year or two afterwards, Sir James saw, at his own house, a little girl with a large abscess on the back of the neck. He wrote to Dr. Robertson, the medical attendant, to the effect that he thought it ought to be opened. Next day, when about to open the abscess, the mother suggested chloroform. Dr. Robertson had none with him, and explained that the walls were so thin that the operation would give very little pain; and put his lancet into the purulent swelling. The child immediately fainted and died, without any hæmorrhage, or any other complication, to account for fatal syncope.

Another case I will adduce was that of a man, described as a robust, middle-aged man—the subject of a moderate-sized aneurism of the femoral artery—who, having readily given his assent thereto, was operated on at the London Hospital. He died on the operating-table, and a post-mortem revealed nothing but lungs turgid with blood, and both sides of the heart empty. This case, with many others, is given in Mr. Travers' work on "Constitutional Irritation,"—first volume.

I might go on quoting cases almost without end—those recorded being so very numerous,—but I forbear, as I have adduced enough for my purpose. Such cases were formerly put down as unavoidable accidents; now our old friend chloroform has to bear the blame! And this brings us to the second division of my subject—viz., whether chloroform compares favourably with ether.

On this head it will be impossible for me to enter as fully as I should wish, partly because spare time will not permit me to do so, and partly because the present uncertain state of our knowledge of ether renders it, to my mind, impossible to institute the comparison with any degree of fairness. It would be like comparing the experience of an old man with that of a baby! Ether has, undoubtedly, many advantages, and I am decidedly of opinion that in certain cases it will eventually supersede chloroform; but the difficulty of getting it pure, of proper specific gravity, and keeping it so when you have it; the large quantity frequently required to produce the desired effect; and the complicated arrangements for its administration,—are most formidable obstacles to its introduction into general practice. This is clearly shown in the quotation already furnished from Dr. Warren's book, where he states that ether was abandoned during the civil war in America, and chloroform almost always used. It is often said that in America ether is used exclusively; but the fact just stated, and one other fact which I will now state, will suffice to prove that such is not the case. That other fact is, that in the last Marine Hospital Reports of the United States it is said that, of cases in which anæsthetics were employed, chloroform was used in 52 per cent., ether in 35, and both combined in 13 per cent.

But what, now, is the experience in our own country? The gentlemen who, together with Mr. Brudenell Carter, have deluded themselves into the belief that there is no risk in the use of ether, and that it never has destroyed life, are, I presume, but few in number. I will take it for granted, therefore, that the fact of ether having proved fatal will not be disputed—indeed, I will be bold enough to say that I cannot conceive it possible to discover any anæsthetic the administration of which would be attended with no risk.

It seems to me, however, at present impossible to arrive at any correct notion of the actual risk with ether. The experience of it in this country, as compared with chloroform, is so limited, that it is hardly fair to draw comparisons. The one is in its infancy, the other has been most extensively used for the last twenty-eight years. When ether becomes, if it ever does, as generally employed as chloroform, and the restrictions and care with which it is now administered become relaxed, who will say that it may not, in its turn, be attended with as many, or more, fatal results? So far from ether having proved harmless, there seems to be little doubt that several deaths occurred from it in the very first year of its introduction (1846), and so shaken then was the confidence in it, that it is doubtful whether anæsthetics would not have been altogether abandoned if chloroform had not been discovered. We are told, indeed, that there is a highly dangerous compound—viz., the ether used for spray in local anæsthesia—which can only be distinguished from the ether used for inhalation by taking its specific gravity. Here is a formidable difficulty to begin with. Are we to trust to our chemist, or are we always to take the specific gravity ourselves before using it? I fear, were ether the only anæsthetic, this alone would prove a serious obstacle to its administration, and that it would oftentimes result in the poor patient having to undergo severe suffering, debarred by those difficulties from the blessing of anæsthetics.

There are many other points regarding ether on which I should like to dwell. But it must suffice to say that all the published experiences of ether tend, in my opinion, to prove that in certain cases, such as operations on the eye, ovariotomy, and where anæsthesia has to be long sustained, ether will probably be found of great advantage; but that, as a general anæsthetic, chloroform will hold its own. There will, no doubt, be room for both, as in the operations of lithotomy and lithotrity. Dr. Sansom truly remarks, "I cannot help thinking it is only care that is needed to sustain the reputation of our old friend chloroform, one of God's *best* gifts to his suffering children."

(*To be continued.*)

Prize Questions.—The Belgian Académie Royale de Médecine offers a prize of a gold medal of 1000 fr. for the best essay on the following two subjects:—1. What are the relations between the emigration of blood corpuscles and inflammation? To be illustrated by new experiments, and, if necessary, new demonstrations. 2. Indicate the relative value of amputation and excision in white swelling. Detail the indications and contra-indications. The memoirs for the first question to be sent into the Académie before March 1, 1877, and for the second before July 1, 1877.

A Caution in Hypodermic Injection of Morphia.—In a note read at the *Société de Biologie*, Dr. Chouppe adverted to two cases in which very serious symptoms immediately followed the injection of minute quantities of morphia. This accident, he has found out, arises from the canula of the syringe having penetrated one of the minute veins, so that the morphia is thrown directly into the venous circulation. When this is the case, the patient, in twenty-five or thirty seconds after the injection of an ordinary dose, is seized with tinglings in the hands, which soon pervade the body, and are accompanied by very intense itching. The veins of the neck become swollen, the face is flushed, and the pulse beats violently, rising to 120 or even to 160. In about a minute and a half, a cold sweat pours off the surface; and in three or four minutes all urgency has ceased, although the heart may continue agitated for some hours after. In order to prevent the occurrence of these effects, the operation should be performed very slowly, so that the injection may be at once stopped when tingling of the hands commences; or what Dr. Chouppe believes will prove the better practice will be to introduce the canula, not with the syringe already charged with the injection, but without the latter, and observe whether a vein has been penetrated, as shown by the issue of blood, drop by drop, from the canula. When this is the case, we should either puncture afresh in another place or push on the canula deeper, so as to traverse the wounded vein. After this precaution has been taken, the injection may then be made.—*Gaz. Hebd.*, March 17.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

OPERATIONS PERFORMED ON MARCH 21.

Cyst in Neck—Removal.

(Under the care of Mr. BRYANT.)

A MAN, aged twenty-six, a carpenter, was admitted on January 26. He had always enjoyed good health, and has worked hard. He has been in the habit of carrying heavy weights on right shoulder. About two years ago he noticed a small lump, the size of a marble, on right side of neck, just above clavicle, which grew gradually. In November, 1874, the tumour was tapped at St. Thomas's, when two ounces and and a half of yellow, transparent fluid were discharged. After a month he was again tapped, and an ounce of fluid was withdrawn. It was once or twice subsequently tapped.

On admission, a large, transparent, and easily movable cyst was situated beneath the platysma in the posterior triangle of the neck. Some large veins were seen coursing over it. It was tapped on February 1, when six ounces of dark-yellow, transparent fluid were withdrawn, after which the cyst was injected with water at a temperature of 96°. The specific gravity of the fluid withdrawn was 1020; in reaction it was alkaline, and was in character partly fibrinous, partly albuminous. Since that tapping the cyst has continued to refill, and was at time of operation five inches by three and a half. It was translucent and painless. Removed through an oblique linear incision, and dissected out entire. It was then seen to be a very pretty specimen of a simple thin-walled cyst containing clear fluid to which a reddish tint was given by the vascularity of the wall of the cyst.

Carcinoma Mammæ—Excision.

(Under Mr. BRYANT.)

Emma W., aged fifty-five, a married woman, and the mother of two children. She had always enjoyed good health. She had always suckled with right breast only. The reason why she had not suckled with the left is that before she had any children of her own she let a strange child suckle, who bit the left nipple, which afterwards retracted. About eight months ago she noticed a little hard lump, about the size of a large marble, in her right breast, but she does not know how long it had previously existed. It remained stationary for three or four months, and then began to grow slowly. During the last five weeks it has been increasing more rapidly, and causing great pain.

On admission, the central part of the right breast was occupied by a large, hard, irregular growth, freely movable over the pectoral muscle. It measured three inches transversely, and four inches from above downwards. The skin was adherent, but the nipple was not retracted. A gland under the pectoral fold of the axilla was enlarged.

The tumour was removed in the ordinary way, and the enlarged gland subsequently dissected out.

Mr. Bryant remarked on the absence of retraction of nipple, and said that it was now well known that this condition of nipple was merely an accidental symptom in tumours of the breast.

Epithelioma of Cheek—Excision.

(Under Mr. DURHAM.)

John B., aged fifty-one, a labourer, was operated upon for a large ulcerated epithelioma of the skin of the face. About twenty years ago he noticed a little black spot about the size of a pin's head just below the left malar bone. This did not increase at all for ten years or more; it was not painful, and could be moved freely. It then began to grow very gradually, and continued to do so up to four years ago. Since then it has increased much more rapidly. It has of late become adherent to the deeper parts. It has ulcerated and occasionally discharges, but generally is covered over with a dry scab. Some little time ago he had a sore "cut out" of the upper lip.

At the time of operating, the tumour was as large as a half-crown, flattened on its surface, somewhat circular in outline, adherent firmly to periosteum of malar bone, and infiltrating the cheek as far as the mucous membrane of the mouth, which was slightly involved. Mr. Durham removed the growth by a circular incision, and afterwards applied the galvanic cautery to the base and edges of the wound. The section of the growth was firm and fleshy, and microscopic examination proved it to be epitheliomatous.

Mr. Durham exhibited to those present an ingenious little instrument he had just had made for the removal of a small quantity of the substance of a tumour through a mere punctured wound. It consists of a stilet and canula; the latter carries the point, and has upon one side of it a little gap in the tube, one edge of which is sharp-cutting and the other blunt. After the instrument has been inserted as far as the tumour, the pointed canula is gradually pushed on further than the stilet, and, as it penetrates the growth, scoops out a morsel of it, just as a tiny cheese-taster might do.

Chronic Disease of Hip-Joint—Excision of Head of Femur.

(Under Mr. HOWSE.)

A young girl, twelve years of age, had for three years suffered from disease of the left hip-joint. The disease followed an injury produced by a fall against a barrow. Directly after the injury the joint became swollen and painful, and some time afterwards an abscess formed, and was tapped at the Children's Hospital at Hackney-road. While in the Hospital she again struck the joint, and immediately afterwards the joint became more swollen and painful. Extension by means of weights was kept up during her stay in the Hospital, but after leaving it was not continued, and her thigh became drawn up.

On admission into Guy's Hospital (February 23) there was considerable flattening of the left buttock, nearly two inches of shortening, and much wasting of the leg and thigh. The thigh was flexed at an angle of 120°, the top of the trochanter was much above Nélaton's line, and there was much swelling of the joint.

For a short time after admission the patient improved, but soon fresh suppuration occurred, and excision was determined upon.

The strapping and bandages ready for extension after the operation having been previously applied, Mr. Howse excised the head, neck, and trochanter major in the usual manner, sawing through the bone with a long straight saw before attempting to disarticulate.

A great portion of the head of the bone had been absorbed, and the neck was nearly at a right angle with the shaft. The joint-cavity contained much flaky, cheesy material, and some pieces of thickened articular cartilage which had been shed during the progress of the disease. Mr. Howse alluded to this detached cartilage and to the presence of a quantity of this cheesy material as being very strong arguments for excision. "How," he asked, "could such material be removed except by suppuration or absorption?" and to wait for these processes is to prolong the time of the diseased condition of the joint.

Chronic Disease of Elbow-joint—Excision.

(Under Mr. LUCAS.)

A boy, aged ten, had injured his right elbow twelve months ago by a fall on his hand. Two months later the joint became swollen and stiff; this stiffness and swelling increased, until it was thought necessary to lay the joint open by a long linear incision over the back of it, and in the axis of the limb. This was done by his private doctor, but the disease increased, until, at the time of operation, the movement was limited to about an inch of flexion and extension, the articular ends of the bone were very much enlarged, and there were no less than seven sinuses leading into the articulation. No dead bone could be felt with the probe. Palliative treatment had been employed in the hospital since January, but without any decided improvement. Mr. Lucas therefore excised the joint through a long linear incision over the olecranon.

THE MEDICAL PROFESSION IN BELGIUM.—According to the *Presse Médicale Belge* (March 26), there seems to be considerable danger that the Ultramontane Parliamentary party, aided in this by their otherwise arch-enemies the Extreme Radicals, will succeed in carrying their measures for what they call the emancipation of professional teaching. By these not only the teaching, but the practice of medicine will be thrown open, without any guarantee for their proper performance; the present laws, prohibiting illegal practice—which have been so distasteful to the provincial clergy, the great sinners in this matter—being abolished.

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Medical Times and Gazette.

SATURDAY, APRIL 8, 1876.

THE DEBATE ON SYPHILIS.

The debate which has just come to a close at the Pathological Society is, perhaps, best likened to a sumptuous repast, whose different viands are more or less agreeable to different tastes, but whose real benefit is rather to be judged by its after-effects. If the sum total produce a severe dyspepsia, the memory of the number of courses, the elegance of some of the ornamental plate, or even the piquancy of a devilled dish, will not be a satisfactory set-off. It would not be very far from the truth if we were to allow that at the Pathological quasi-festival, the number of courses, the ornamental plate, and the piquant dishes were forthcoming; and now we may fairly ask about the digestion of those who were entertained. What is the result of the debate? and, What have we learned from it?

It is a difficult task to compare and arrange the opinions of the different speakers, and if we propose to deviate a little from the order in which Mr. Hutchinson's paper was arranged, it is for the sake of reviewing, to some extent, the present position of the study of syphilis, as well as noticing the advances recently made in our knowledge of the subject. The outcome of the debate will be no less evident, and Mr. Hutchinson's able and argumentative reply will itself afford the means of noticing how far his peculiar views are accepted or opposed.

The definition of syphilis—that it is "a specific disease transmissible by contact or inheritance, characterised by a slow, periodical, progressive development, and especially by changes in the cellular tissue, without tendency to suppuration"—nothing has come to light to modify.

Syphilis, then, is one disease, or, as Dr. Wilks forcibly put it, "if a man has syphilis, he has syphilis." And Mr. Hutchinson was equally distinct in attributing the phenomena of the disease to one virus. Dualism, he declared, was dead, although, as he amusingly allowed in his reply, it was not buried. And doubtless dualism, in the sense of two poisons producing the phenomena of constitution alsyphilis, is dead—if anything can be dead which has never had a very certain existence. But, that dualism is dead, or, much less, buried, which believes in two distinct kinds of virus, each producing its own form of chancre, was not so evident from the expressions of several speakers. Mr. Henry Lee supported the view taught ultimately by Ricord, that there are three distinct forms of sore—the soft, or simple, inflammatory, non-infecting sore; the indurated, or true infecting chancre; and the chancroid. Mr. Berkeley Hill also acknowledged two distinct poisons, to explain the phenomena which we know as the soft sore and the hard sore. Mr. Hutchinson views the soft sore as the result of contagion with inflammatory products produced by syphilis, but not as a rule containing its germs, and he believes that this creed obtains general acceptance. It might fairly be asked—How would a sore, caused by inflammatory products produced by syphilis, but not containing the germs of syphilis, differ from one caused by inflammatory products resulting from other acute processes?

Of the three Army surgeons who spoke upon this point, two took apparently the view of the soft sore being a pathological unity, while the third agreed with Mr. Hutchinson, and went even further, considering that the character of sore which would follow contact with syphilitic virus was practically a toss-up, as it depended upon the conditions of the constitution, temperament, receptive conditions of the patient, and even ablution.

We are sorry not to have seen the result of military experience more fully brought out in the debate. Military surgeons see, probably, more of syphilis than even hospital surgeons, and have better opportunities of following its progress in individuals and families. It is therefore surprising that some of those who are connected more especially with the pathological work of the army have not come to the front.

We propose to notice in our next number some other points of importance in the pathology of syphilis.

CONSULTANTS AND GENERAL PRACTITIONERS.

We hear—and we confess that we are not surprised at the news—that the ranks of the consultants are becoming overcrowded. It has within the last few years become the fashion for many young men on their entering the profession to lay themselves out for consulting practice. When a man has taken a good degree or diploma, such as the M.D. Lond. or F.R.C.S., he immediately begins to think that he is above general practice, and refuses to look upon himself as fitted for any position but that of a consulting physician or surgeon. This is doubtless in many respects a laudable ambition, but it is one which involves many years of anxious, wearying, unproductive labour before the young consultant finds that anybody will consult him. It cannot be expected that either patients or general practitioners will seek as a superior opinion that of a young man of twenty-five or twenty-six, who has but just emerged from his *status pupillaris*, simply because he chances to possess the London M.D. Granted, that this degree implies in its possessor a very considerable amount of professional knowledge, it does not imply of necessity an amount of information such as should be at the command of every consultant.

It would be as well, perhaps, to inquire what should be the qualities possessed by one who sets himself up to be consulted by his fellow-practitioners. A consultant should be a man of good general culture, some considerable degree of scientific knowledge, thorough acquaintance with his profession, and great experience. The last qualification is, in our opinion, by no means the least important. Much as may be learnt from the study of books, all that is but as nothing compared with the practical lessons learnt at the bedside, whether of the private patient or in the hospital ward. *Experientia docet* is a

time-worn, but none the less truthful saying. Everyone who has studied medicine must know the immense advantage which practical has over theoretical knowledge. The physician whose opinion we should all most value is not the one who could give us page after page of learned disquisition on the causes which produce the sounds of the heart, so much as he who would tells us from his experience the methods of treatment which he has found useful in cases of heart disease similar to that in which we consult him. It is in this very quality of experience that the young consultants must of necessity be deficient: not that they are to be blamed for it. We do not for a moment suppose or imply that they have not made the very best use of their opportunities, and have not gained as much experience as possible in the time. But no man can do impossibilities; and the most energetic, self-denying, and laborious student of disease cannot see more than a certain number of cases in a year. Then, again, in the case of these young men, their experience is almost wholly confined to hospital practice; and it cannot be denied that principles and methods of treatment applicable to hospital patients are often difficult of application, if not even unadvisable, in private practice. The conditions of the patient, his mode of life, and his entire surroundings, are so different that the diseases run a different course, present in many cases different trains of symptoms, and require, in consequence, different systems of treatment. It is obvious, therefore, that the man best fitted to become a consultant for general practice is he who has had experience—the larger the better—of that kind of practice himself. Our beau-ideal of a consultant is one who, after a university or other liberal education, has worked hard when a student, has taken a good degree, and then settled down into private general practice; after some years of which, having meanwhile kept himself thoroughly *au courant* with the professional discoveries and improvements of the time, he abandons that branch, and devotes himself to the cultivation of a consulting practice. In him we have, combined, culture, professional knowledge, status, and experience; and from him we are likely to receive an opinion worthy of respect and consideration. We would therefore suggest to some of those young men, who, glorying in the possession of first-class diplomas, gold medals, scholarships, and other distinctions, have set themselves down in "good" streets as consulting practitioners, to retire for a time into the perhaps humbler, but none the less honourable and useful, career of general practice, and there lay up a store of varied experience and resource, which they will find is unattainable by any other means. In ten or fifteen years' time, perhaps, fortified by the possession of this experience, they may resume their rooms in the consultants' quarter, and may expect with some reason that their opinion will be sought after as one worth having and paying for. Were this plan more often followed we should not have so many complaints of the overcrowding of the higher ranks of the profession.

There is, however, another question in connexion with consultants which we should like to consider. In the first place, we should like to ask whether a consultant should practise as anything but a consultant; and secondly, should the consultant come directly in contact with the patient, or should he only act through the general practitioner? To the first question we would answer,—A man who sets himself up, or is set up by the voice of his professional brethren, as possessing an amount of knowledge, experience, or skill justifying his being consulted by others, should not continue to practise as an ordinary practitioner—that is to say, he should not continue to act as the family medical man. To the second question we would make a somewhat similar reply. A consultant should be careful to act only through the medium of the professional brother by whom he is called in. Just as the legal counsel communicates with the client only through the attorney, so the medical counsel or consultant should communicate with the patient only through the medical attorney—that is to say, the general practitioner; always supposing the patient has any "ordinary" medical adviser. A disregard of this rule has made many general practitioners chary of calling in a consultant, they being afraid that the latter may deprive them of their patients. Instances are, we believe, not very rare in which such an occurrence has taken place, and it is, therefore, but natural that some general practitioners should look upon consultants with an unfavourable, jealous eye. We trust, however, that such instances are few and far between at the present time; but we feel convinced that were consultants to refrain from family practice, and to refuse to see patients except through the medium of their regular attendants, they would find their opinion much more often sought after by their professional brethren, and would raise themselves in the estimation both of the public and the profession. While, however, the ranks of the consultants are crowded by the young aspirants to whom we referred in the early part of this article, we cannot expect that such a course will be pursued. These young men must live, and, as nobody consults them, they are compelled to do what falls in their way in the shape of family practice. It may be, however, that gradually, and not slowly, the distinction between the "consulting" physician or surgeon, and the family medical adviser, or "general" practitioner, will disappear.

THE WEEK.

TOPICS OF THE DAY.

Last week a large and important deputation, headed by Dr. Lyon Playfair, M.P., waited upon the Home Secretary to urge upon his attention the evils to the health of London generally which resulted from the impure nature of the water-supplies to the whole of the populations resident in the metropolis. Dr. Playfair, in introducing the deputation, said they attended to present a memorial from the National Health Society upon the subject of the water-supply of London, and he concurred with them in all but a few subordinate points of their memorial. Dr. H. Sandwith, C.B., then presented the memorial, which urged that the water companies had tried vast experiments upon the healths and lives of the population in past times, and that the source of the larger portion of the London supply being below the places where the drainage of about 900,000 persons was poured into the Thames, disease was thus spread through the metropolis; and it was further contended that cholera had been transmitted by the water companies to their customers. Other members of the deputation spoke on the subject; and the Home Secretary, in reply, said that of course no one could overrate the importance of the question thus brought to his notice. They would, he hoped, excuse him from saying much upon the question, but two things he thought he might say they were agreed upon. The first was, that this was a matter of the greatest possible importance to the health and welfare of the great community of London; and the second was, that this was a matter which was very far from escaping his attention. He took the step years ago of inducing the great towns of Scotland to ask for the appointment of a Royal Commission to consider how best the Clyde might be purified, and to consider the question of the water-supply of the neighbouring towns to that watershed. The fact that this had been done would show his anxiety to deal with the question of water-supply. This matter had occupied his attention before he assumed office; but he must say that up to the present time he had not thought it his duty to lay any of his views before the Government unless he was prepared to show that he had made up his mind on the efficacy and practicability of the reforms he desired to obtain. But he hoped that if he

remained in his present office, the subject would have not only his practical attention, but the attention of the Government of which he was a member. The deputation then thanked the Minister and retired. We will add, further, that the Home Secretary observed, or might have observed, that he felt it right to warn the deputation that even the best cause might be injured by exaggeration.

The following returns, showing the consumption of spirits in the United Kingdom during the year 1875, will cause a feeling of despondency in the mind of Sir Wilfrid Lawson and his followers. During the year in question duty was paid on 30,106,107 gallons of home-made spirits for consumption as beverage in the United Kingdom, being 230,706 gallons more than in the preceding year. The quantity retained for consumption in England was 16,742,768 gallons, an increase of 79,966 gallons; in Scotland 6,872,470 gallons, a decrease of 141,111 gallons; in Ireland 6,490,869 gallons, an increase of 291,851 gallons. In the same year duty was paid on 11,782,650 proof gallons of foreign spirits imported and entered for home consumption, being as much as 1,147,438 gallons more than in the preceding year. The increase was chiefly in spirits other than rum and brandy.

A very large and influential meeting was held at the Mansion House, on the 28th ult., in support of Mrs. Gladstone's Free Convalescent Home at Woodford, Essex. The Home is for the reception of the sick poor who are recovering from illness, treated either in their own homes or at hospitals, and it aims at restoring their strength by care, and good board and lodging. Admission to the institution is determined solely by the merits of the case, and anyone, whether a subscriber or not, may recommend an applicant to the Committee. It is open to the blind, to persons of both sexes and of all religious denominations. Unfortunately this year Mrs. Gladstone is compelled to appeal to the public for funds, in order to meet a deficit of over £400 that has arisen in its maintenance. The Lord Mayor, the Bishop of Ely, and Mr. Gladstone addressed the meeting on behalf of the claims which this charity possesses on the benevolence of the community, and it is satisfactory to be able to record that before the proceedings terminated donations and subscriptions amounting to upwards of £900 were announced by the Lord Mayor.

Sir George Burrows, Bart., President of the Royal College of Physicians, took the chair last week at a conference held at the Shoreditch Town Hall, when the subject discussed had reference to the medical aspect of intemperance. A large number of the profession, including Dr. Blandford, Dr. Lauder Brunton, Dr. Symes Thompson, and Dr. Maudsley, were present. The chairman said medical men would gladly support the clergy in their laudable efforts to arouse the working population of Shoreditch to the horrible evils of intemperance. He was not one of those who advocated total abstinence; for he believed that in a climate like London the human constitution, in many cases, would not be capable of bearing what it did unless alcoholic stimulants were resorted to. With regard to the physical evils of drunkenness, he thought the clergy would do good by pointing out how inevitably over-indulgence impaired strength and energy, and deteriorated their offspring. Dr. Maudsley alluded to the large proportion of drunkards' children who became insane, and was corroborated in this respect by Dr. Blandford. Dr. Brunton pointed out that the diseased craving created by drink was one of the greatest difficulties in the way of reform. Dr. Symes Thompson remarked that the craving often experienced by delicate women could be met from the kitchen, though in some cases medical remedies were also necessary.

From the latest accounts received there would appear to be no doubt that the plague has again broken out at Hillah, and some cases are even reported to have occurred at Bagdad. The disease has been absent from this country for more than 150 years; and from the continent of Europe, and from its chief stronghold in Egypt, Syria, and Mesopotamia for about forty years. The recent outbreaks, however, have shown no diminution of the old virulence, and there can be but little doubt, when the present state of commercial inter-communication is considered, that the malady may soon be conveyed from Bagdad to the Levant.

Last Saturday the funeral of Sir Cordy Burrows took place at Brighton, the remains of the deceased being interred in the family vault in the Extramural Cemetery. The occasion was marked by an unprecedented demonstration of sympathy and regard on the part of the townspeople. From the hour of ten o'clock the shops were generally closed; nearly 50,000 people lined the route of the funeral from the residence of Sir Cordy on the Steyne to the gates of the cemetery, within which about 4000 persons had been admitted by ticket. The funeral procession, walking four abreast, extended nearly a mile in length, and comprised all classes of the community, municipal, professional, lay, clerical, civil, and military. The Mayor and several ex-Mayors attended as pall-bearers, and many eminent scientific men were present who assembled from London and other places. The coffin and open funeral-car were absolutely covered by votive floral tributes sent by friends and patients.

The Sanitary Commissioner of the Punjaub reports that, during the week ending January 22 last, the total deaths registered were 6920, the number in the previous week being 7174. There was not a single death registered under the head of cholera; but 169 were recorded as having resulted from small-pox, the number in the previous week having been 144. The cities of Lahore and Amritsur, and the small town of Palwal in the Gurgaon district, continue to be the only places in which this disease has as yet caused any large number of deaths: 11 deaths were registered from it in the city of Amritsur, 8 in Lahore, and 14 in the town of Palwal. The general health of the province continues to be fairly healthy, except the districts of Moultan and Montgomery, in which the death-rate is excessive—that of the former is 47 per 1000 of population, and of the latter 38. The health of the large towns is also improving, but great sickness still prevails in the town of Palwal; the deaths registered in it giving an annual death-rate of 98 per 1000 of population.

It is to be hoped that the authorities will see fit to make public the changes contemplated in the Netley establishment as soon as possible. We believe there is no truth in the rumour that the invalid hospital there is to be broken up; but we fear that the report as to the abolition of the Army Medical School is not without foundation, more especially as no official contradiction has appeared on the subject, although an opportunity was offered on the occasion of a question being recently asked in the House of Commons with reference to filling the professorship now vacant through the lamented death of the late Dr. Parkes.

There is a great deal of native humour in the report of the Registrar of Tullow District, Carlow Union. In his return for the last quarter of the year 1875 he states that some good main sewers exist in the town, but no one seems to know their exact situation. A public pump, however, lately erected, is conveniently placed over a sewer, and the water consequently proves quite unfit for use. Typhoid fever, which prevailed in the district in September, then gave place to typhus, which was very severe for two months, after which it declined. Under these circumstances, it is scarcely a matter for surprise that the deaths registered in the quarter were more than the births.

Several gentlemen interested in biological research met on Friday last at the house of Dr. Burdon-Sanderson for the purpose of considering the expediency of taking steps with

a view to the supplying of a want which has been often felt and recognised in London—that of a society representing physiology. After some discussion, the subject was eventually referred to a committee. Before the meeting separated, the question of legislation also came under consideration. We learn that a very unanimous feeling was expressed to the effect that, in case any measure in accordance with the recommendations of the Royal Commission were introduced into Parliament, no objection would be made to it on the part of scientific men.

Professor Huxley was most agreeably surprised one morning last week, on opening his letters, to find that one of them contained a cheque for £1000, sent by Mr. Thomason of Manchester, on behalf of his lately deceased father, who greatly admired the learned Professor.

HEALTH OF DUBLIN.

In the House of Commons, last Tuesday evening, Mr. Butt, in the absence of Dr. O'Leary, asked the Chief Secretary for Ireland whether he was aware that the Public Health Committee of the Corporation of Dublin, as the sanitary authority under the Act of 1874, called a meeting of the medical sanitary officers of Dublin to ascertain their opinion as to the cause of the high death-rate (34 per 1000) recently prevailing in that city; if such meeting were held, what opinion was expressed by the medical sanitary officers; what recommendation the said officers made; and whether the Public Health Committee had taken any action upon such recommendation, and, if not, whether the Government will do so. Sir M. Hicks-Beach replied that the meeting referred to was held on March 15, and *the opinion expressed by it was that the cause of the high death-rate which had recently prevailed in Dublin was mainly due to diseases of the respiratory organs.* Of 230 deaths within the three months in excess of the average of the corresponding quarter of the previous years, 175 were due to diseases of this kind. Most preventable diseases—as fever and scarlet fever—show a marked decrease, as compared with previous years. *No explanation was given to or by the meeting on the subject; nor was any recommendation made.* We have italicised certain portions of the Chief Secretary's reply to Dr. O'Leary's most pertinent questions, because we find it difficult to reconcile them with the following notice of a meeting of the district medical sanitary officers of Dublin, which appeared in the *Daily Express* and other Dublin morning papers of the 30th ult.:—"At a meeting of the medical sanitary officers of Dublin, held yesterday, it was decided that publicity should be given to the opinions expressed by them to the Public Health Committee, at the recent conference, held on the 15th inst., and convened for the purpose of discussing the high death-rate in Dublin. The conference was held with a view of eliciting their opinions, and obtaining their suggestions as to the inordinate mortality in Dublin as compared with other cities in the kingdom, in order that (as stated in the circular convening the meeting) a report of the conclusions then arrived at might be prepared for the information of the public. Since the above conference a report of Dr. Mapother to the Public Health Committee has been published, in which no allusion is made to the fact of the medical sanitary officers of Dublin having discussed this subject with the Committee; neither does there appear any statement in the published proceedings of the Public Health Committee as to their views on the question, which were handed in on paper, and which expressed the opinion of the medical sanitary officers present, namely:—That the high death-rate was in a great measure due to the unsanitary state of Dublin, to remedy which a new Building Act, along with the application to Dublin of the Artisans' Dwellings Act, were urgently required. Lastly, that all houses condemned by the medical sanitary officers should be closed." The strange want of agreement between the latter of these paragraphs and Sir M. Hicks-Beach's reply is explained by a reference to the Report of the Public Health Committee, on the meeting of March 15. In that report the opinions and suggestions of the district medical sanitary officers are taken no notice of; and the explanation of the "inordinately high" death-rate of Dublin—to use the words of the Public Health Committee itself—is alone permitted to be scanned by official eyes. Moreover, this statement in the Public Health Committee's Report has, apparently, not reached Sir M. Hicks-Beach:—"*Nearly one-third of the deaths of the past quarter were those of children under five years of age.*" Surely by this time every sanitary authority ought to know that the death-rate of young children is one of the most significant tests of the health of a population. We shall return to the subject of the high rate of mortality in Dublin at no distant date.

HEALTH OF LONDON.

The Registrar-General's returns for the week ending 25th ult. show that in London during that period 2601 births and 1615 deaths were registered. Allowing for increase of population, the births were 157 above, and the deaths 57 below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been equal to 21·8 and 23·1 per 1000, further rose in the week under notice to 24·1, mainly due to the influence of the low temperature. The 1615 deaths included 1 from small-pox, 63 from measles, 37 from scarlet fever, 3 from diphtheria, 94 from whooping-cough, 15 from different forms of fever, and 10 from diarrhœa. Thus, to the seven principal diseases of the zymotic class, 223 deaths were referred, against 201 and 244 in the two preceding weeks. These 223 deaths were 11 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 3·3 per 1000. The 15 deaths referred to fever showed a considerable decline from the numbers in recent weeks, and were 26 below the corrected weekly average; 1 was certified as typhus, 8 as enteric or typhoid, and 6 as simple continued fever. The fatal case of typhus occurred in the wife of a shoemaker, aged fifty, in Mulberry-street, Mile-end Old Town. Two of the fatal cases of diphtheria occurred in the Kentish Town sub-district. The death from small-pox was of a vaccinated infant, aged three months, admitted to the Stockwell Fever Hospital from the Lambeth Infirmary. The deaths referred to diseases of the respiratory organs, which in the two previous weeks had been 336 and 351, further rose last week to 371; this number, which included 233 fatal cases of bronchitis, and 90 of pneumonia, was, however, 41 below the corrected weekly average. Different forms of violence caused 45 deaths; 32 were the result of negligence or accident, including 13 from fractures and contusions, 6 from burns and scalds, 6 from drowning, and 4 of infants under one year of age from suffocation. Five of the deaths from fractures and contusions were caused by horses or vehicles in the streets; from this class of accident 52 cases of injury and maiming came under the notice of the Metropolitan and City Police during the seven days ending the 25th ult.

THE ARMY MEDICAL SCHOOL.

The thirty-second session of the Army Medical School was opened on the 3rd inst. at Netley. Twenty-three candidates of the Indian Medical Service, thirteen candidates for commissions in the Royal Navy, and some Staff-Surgeons of these two branches of the public service, had arrived to attend the course, but there were no candidates present of the Army Medical Department. Two German medical officers, who had received permission to go through the course of instruction, had also joined. The introductory lecture was delivered by Professor Aitken, who took for the subject of his discourse the life and labours of his late lamented colleague Dr. Parkes. The rich and varied public services, and the energetic and

truly amiable character of this distinguished ornament of the medical profession, were very vividly and feelingly described by the lecturer, and he endeavoured to impress on the candidates who were just commencing their career in the army and navy that they could not take for themselves a nobler example for imitation than the one which the life of Dr. Parkes afforded. It is generally believed at Netley that it is the design of the authorities who are responsible for the recent changes in the Army Medical Department shortly to break up the Army Medical School and the head-quarters, mess, and establishments of the Department at that station, but we sincerely trust the belief does not rest on any solid foundation.

GLASGOW: UNCERTIFIED DEATHS.

At the usual fortnightly meeting of the Glasgow Police Board, held on the 3rd inst., the recommendations submitted by the Health Committee at the last meeting, referring to uncertified deaths and gratuitous relief for the poor, and published in our columns a fortnight ago, were fully considered. In the course of the discussion it was suggested that the coroner's inquest would be an improvement on the present mode of investigating sudden or accidental deaths in Scotland, but the Health Committee are not yet prepared to recommend the introduction of that system. The recommendations of the Health Committee were subsequently adopted, viz.:—1. That measures should be adopted for obtaining for Scotland additional facilities for investigating, and subsequently certifying, all cases of uncertified deaths. 2. That the Committee should suggest to the various parochial boards in the city the propriety of adopting measures for the purpose of giving greater facilities to the poor in obtaining gratuitous medical advice and medicines. 3. That a copy of the medical officer's report should be sent to the representatives of the various public bodies.

ANDERSON'S UNIVERSITY, GLASGOW.

The winter session in Anderson's Medical School was brought to a close on the 5th inst.; when, in presence of a large number of students and their friends, the formal distribution of prizes and certificates of merit took place. The past session has been in all respects an eminently successful one, and we are happy to be able to state that this well-known and useful institution is about to receive substantial aid from the managers, who have resolved to expend the sum of £2000 in providing additional class-room accommodation. It may fairly be expected that, with such additional teaching appliances, and with such an energetic staff of teachers, the sphere of usefulness of Anderson's Medical School will be widely extended.

MEDICAL SOCIETY OF LONDON.

The adjourned discussion on Mr. Henry Smith's paper "On Certain Manifestations of Syphilis" was continued on Monday last. Mr. Francis Mason laid down the theory that iodide of potassium was an anti-strumous rather than an anti-syphilitic remedy, and that if it succeeded in curing cases without a syphilitic history, these should not necessarily be considered as of syphilitic origin. Mr. Napier stated that he did not believe that the teeth could ever be depended upon as diagnostic of the disease under consideration, the same condition being frequently attributable to the influence of medicine administered during their growth, or to certain strumous affections existing at such time.

THE VALUE OF DEATH-REGISTRATION STATISTICS.

The statistics given in the Registrar-General's Returns as to the causes of death are not, we fear, in all points as reliable as could be wished. In many cases the causes of death are uncertified, and in others the certificates are filled up by unqualified practitioners, whose knowledge of the true cause of death is most probably very indefinite. At an inquest held at Oldham recently, it transpired that a "medical botanist" named Armitage is in the habit of filling up and signing death-certificates for patients who have died under his care, and such certificates are, we believe, accepted. In the case that gave rise to the inquiry, the "medical botanist" had given a certificate to the effect that the cause of death was "types feavour." Perhaps the local registrar understands Mr. Armitage's peculiar orthography, and is not misled into believing that "types feavour" is some new and terrible disease which is unknown to the College of Physicians.

MORE SCURVY.

Another outbreak of scurvy is reported from Plymouth. The barque *Emily Flinn*, belonging to Mr. T. Miles, of Newcastle, commanded by Captain Clement, arrived at Plymouth last week, 168 days out from Moulmein. All proceeded well on the voyage until about three weeks since, when several men were attacked with scurvy. The cases were so bad that seven of the crew were confined to their berths, while seven more are very unwell. In one case erysipelas set in and terminated fatally. Dr. Edlin visited the ship yesterday, and prescribed for the sufferers, whom he found doing as well as could be expected. They were to be removed to the shore as soon as the necessary arrangements could be made. The outbreak of the disease is attributed to bad water put on board at Moulmein. No doubt the Board of Trade will order an inquiry to be made, which will elicit the cause of the outbreak, a report having been circulated that it was induced by the inefficient cooking of the food provided.

Revaccination.—Dr. Davis, reporting on the results of revaccination during an epidemic of small-pox at Cincinnati, comes to the following conclusions:—1. Exposure to infection and the intense epidemic influence largely increases the susceptibility of the system to the influence of vaccine virus, and accounts for the unusual number of successful revaccinations during the existence of an epidemic. 2. Variola and varioloid give no more protection from a recurrence of variola than vaccination. 3. The cicatrix is not a safe criterion of the degree of protection given by the vaccination from which it resulted. 4. It is advisable to revaccinate upon every exposure to infection, unless it has been done recently with success. 5. Those who are successfully revaccinated are to some extent still susceptible to the variolous influence; not that all would take the infection (for an epidemic never attacks all the unprotected), but that they are in some danger is proven by the results of revaccination in the hospitals and standing armies of Europe. —*Boston Journal*, February 3.

Composition and Quality of the Metropolitan Waters in March.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	19·70	0·100	0·168	0·002	14·3	3·3
West Middlesex .	20·23	0·090	0·146	0·001	14·3	3·3
Southwark & Vauxhall . . .	19·93	0·094	0·121	0·001	14·3	3·0
Chelsea . . .	19·80	0·100	0·146	0·001	14·3	3·3
Lambeth . . .	20·70	0·083	0·146	0·001	13·8	3·3
Other Companies.						
Kent.	27·66	0·011	0·378	0·000	18·8	5·6
New River . .	21·23	0·060	0·166	0·001	14·3	3·3
East London . .	21·45	0·052	0·192	0·001	15·4	3·3

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in those of the Grand Junction and the Chelsea Companies.

REPORT ON THE WATER-SUPPLY OF HASTINGS.

BY OUR SPECIAL COMMISSIONER.

So much has been said regarding the water-supply of Hastings, especially since 1874,—assertions and counter-assertions, not to speak of sheer abuse, have been so freely bandied about,—that we have judged it well to inquire into the matter for ourselves, and the result of this inquiry we now propose to lay before our readers. Our investigations have been conducted with all the care the importance of the subject demands. Every statement made has been verified by our own investigations, and they are here laid down without either fear or favour. Our only object is the well-being of the public, not only of the inhabitants of Hastings itself, but of that numerous body who, from various causes, have to seek in such and such-like places the health they have elsewhere lost.

To a due understanding of the whole subject a slight knowledge of the geological features of Hastings and its neighbourhood is absolutely necessary. To begin, the strata on which it is built belong to the Wealden, a fresh-water or estuary deposit, consisting mainly of sand and clay. Though these must have been level, or nearly so, when laid down, they have since their original formation been violently dislocated, so that strata at one time continuous have been wrenched apart, and are now to be found at very different levels. These "faults," as they are termed, are numerous in the vicinity of Hastings. The most important of these alterations in level has produced, by upheaval, a short distance behind Hastings, a ridge, whence the strata slope downwards towards the sea on the one hand, and inland on the other. Hastings lies to the south of this, on the borders of the sea, protected from a northern exposure by this ridge, but strictly limited by it as to the area whence its natural supply of water is to be obtained. Extending from the ridge to the sea are a number of small deep gullies or valleys, worn in the soft strata by the surface-water, which, after heavy rains, runs down the short and rapid slope from the ridge to the sea. Across these valleys, in almost every possible direction, dams have been built, and the water thus stored constitutes the main supply of Hastings for all kinds of purposes.

In such a district, one of the great means of supply open to some large communities—namely, rivers or streams bringing water from a distance—is obviously out of the question. Without important engineering works the supply must be strictly local, and, even to obtain the present quantity available, considerable engineering operations have been necessary. In the face of such a condition of things it is clearly of the utmost importance to ascertain,

Firstly, whether the present supply is adequate in quantity to the wants of such an important community as that of Hastings; and,

Secondly, whether, if sufficient in quantity, it is of such a quality as to render it desirable to continue its employment for domestic purposes. It is quite clear that a negative answer to the latter part of the question should, in all strictness, invalidate an affirmative reply to the former portion of it. If the water be not fit for domestic use, no quantity, however great,—no supply, however copious, can make up for want of purity. Hence we look upon this as the more important inquiry of the two, and shall consequently deal with it first—the more so, as it is not a question of figures which can be manipulated at will, but a matter of observation and induction.

The water-supply of a district like that around Hastings depends, directly or indirectly, on the rainfall—directly, in the shape of surface-water, which runs off fields, gardens, roads, houses, etc., during or immediately after a shower; indirectly, by the portion of the rainfall which sinks into the soil, and constitutes the ground-water, the flow of which is as much regulated by geological formation as is that of the other. The ground-water will sink by degrees, sooner or later, through all permeable strata, till it reaches a bed of clay or some such impermeable stratum, along the surface of which it will flow in accordance with the ordinary laws of gravitation, until it is dammed up by some impermeable obstacle, or makes its way to the surface at a lower level than that where it entered the soil. To the former set of phenomena we owe the existence of some kinds of wells; to the latter, of springs and certain other kinds of wells. It is important to understand that the gathering-ground of the deeper strata may be much more extensive than that of the upper ones; consequently, that the supply of deep well-water may be altogether independent of the quantity of surface-water. This is—in part, at least—the case at Hastings.

The gathering-ground which yields the water-supply of Hastings may conveniently be divided into two districts—one lying east of the town, the other more to the west, but separated from the former by a considerable area of watershed, whence no supply is now drawn for the use of the town. To begin with the eastern division. This consists of three valleys, of which the most remote is that of Fairlight, which really hardly belongs to the Hastings watershed at all, and is only attainable as a source of supply by bringing the pipes along the shore. The supply is here derived from springs and surface-drainage. The valley is mainly uncultivated, but is greatly resorted to by visitors and others during the summer months. The small reservoir in this valley contained turbid water at the time of our visit.

Crossing a ridge under cultivation, and consisting, as far as the surface is concerned, of a tough impermeable clay, we reach the next valley, in which is a dam of considerable size. The contents of this are almost entirely derived from surface-drainage. The watershed is short and rapid. At its upper end are one or more farms, which can only drain into this valley. One side of the valley is more under cultivation than the other. The soil is again clayey. At the period of our visit there was a little water flowing in the bed of the valley, and the pond was quite full. We are informed that in summer the bed of the stream is quite dry. This reservoir goes by the name of the Ecclesbourne Reservoir; its waters are conducted through a channel tunnelled in the hill to the next valley, in which, at Clive, are two reservoirs, whose water is conducted directly to Hastings. These two reservoirs have extremely sloping sides, and they are fed directly from the stream in the valley, which is thickly inhabited. On one side (the western), immediately above the reservoir are plots of garden, highly manured, and partly occupied by pigstyes and tool-houses, whose surface-drainage seemed, at first sight, to be carefully conducted past the reservoirs; but on closer inspection it turned out to be carefully conducted into the lower of the two. The ditch (for we can call it nothing else) was at one point intercepted by a slight dam, and from this little dam an iron pipe conducted the water into the lower pond. In the wall forming the dam was a wooden plug, closely inserted at the time of our visit; in the orifice of the leading pipe was another, so inserted as to allow the water to run freely past it into the pipe, but would probably resist the passage of bulky impurities. The dam-wall was not high, but was sufficient to turn the water then flowing almost entirely into the lower pond. Had more water been flowing, part of it would have probably passed over the wall; and had at any time the plug we saw in the leading pipe been closed, and the other in the dam been opened, the whole would have passed on down the valley towards the sea.

Tracing the water-flow from these ponds downwards towards Hastings, we arrived at a spot which was described to us as a filter. This consists of a shallow tank of brickwork, deeper at one end than the other. The surface of the water at this end was so obscured by a scum that the bottom could with difficulty be seen. As far as we could judge, there was no filtering apparatus, the only thing at all resembling that being a pipe with a perforated cap opening into the tank. We speak here only of what we saw for ourselves. From this point, really in the town of Hastings, we did not follow the course of the water-supply from the eastern side, but we may note with regard to it—

First, that the water is almost entirely derived from the surface-drainage of a highly cultivated and thickly peopled district.

Second, that any spring-water intercepted must infallibly be contaminated by the surface-drainage water.

Third, that the surface-drainage, from the nature of the soil, must be unusually abundant, and, coming from manured fields and inhabited houses, unusually dangerous.

Fourth, that special care had been taken to add water, even from the most suspicious sources, to the general supply of the town.

The water in every pond was more or less turbid.

Turning next to what, for the sake of distinction, though perhaps otherwise incorrectly, we will designate the western

sources of supply, we find that these converge into one valley—the Old Roar Valley—and its continuations. This valley drains a larger extent of surface than any of those already alluded to. The slopes of the valley are at some points thickly peopled, at others there are no habitations; but on every side extends cultivated and manured ground. Many of the houses draining into this valley are large, their water-supply suspicious, and their sanitary arrangements are beyond the control of the Hastings Sanitary Authority. Here, too, the surface-soil is generally clay, insuring a large amount of surface-drainage. At the time of our visit the channel of the stream contained a little water at the Old Roar itself; and beneath this the stream was interrupted by dams at intervals, keeping back a certain quantity of water. These invariably contained exceedingly turbid, not to say muddy water. The overflow eventually reaches the great reservoir in the Old Roar Valley. Before passing into this, however, it is stated that the water is filtered. Be that as it may, the water in the reservoir was turbid, and there was not the slightest appearance of any means of renewing the smallest filter-bed, to say nothing of such a filtering apparatus as would be necessary to clear water as turbid as that in the valley above in the quantity stored here. The surface area of this reservoir is large, and its capacity considerable. There is no protection against the risk of a sudden flow of surface-water following a heavy shower, and carrying before it all sorts of impurities, tainting this reservoir, even supposing the supply to be itself above suspicion, which it is very far from being.

At the lower portion of the Old Roar Reservoir is a penstock, from which, when we saw it, some water was escaping. This coursed down a channel lined with brick, to a point where it was intercepted by a dam, and conveyed into a pipe, the course of which we were unable to trace, though it probably ran into the main leading to the town. Lower down the valley was a well, quite uncovered and exposed, containing clear and bright water; this was led off by a syphon pipe, probably to join the main. Other sources of supply were tapped on the opposite side of the valley, all probably finding their way into Hastings by the same conduit. From this point the water flows directly into the town, to be there distributed.

At this part of the valley, commonly known as Buck's Hole, several important attempts have been made to add to the water-supply of Hastings. These consist of a series of four wells, of which the three upper are connected by headings. The water in these was covered by a scum, but at the time of our visit the pumps were not working. The fourth well is close to the third, and from it a heading is being driven in a south-westerly direction, in hopes of obtaining by it a more plentiful supply. There is no connexion between this well and the third, a few paces from it. The water from this well was being pumped into a pond in a lateral valley which contains three other such reservoirs. Running in full stream, the water did not seem very turbid, but the water in the pond was dirty—more so, perhaps, than in any other pond we saw. This water, we were informed, was filtered before being supplied to the inhabitants. Following the course of the pipe from this reservoir, we were conducted to a small filtering-bed, totally inadequate for such a purpose as that of filtering any quantity of water beyond a dozen gallons or so, and at the time of our visit perfectly empty and dry. Water was, however, flowing in its centre from one pipe into another. This was, in all probability, the water coming direct from the turbid pond alluded to, and passing, without any purification whatever, into the town-mains.

To return to the ponds. The second of these, counting in an upward direction, contained turbid water, which must have consisted—in part, at least—of surface-drainage. This we understood to join the first.

The two highest reservoirs (Shornden) send their water direct to Hastings for immediate delivery. They are of considerable extent. The lower pond at the time of our visit was slightly turbid, but the upper one was quite clear—the only large collection of perfectly clear water we saw in connexion with the water-supply of Hastings. It contained water-plants and fishes. On the north side of this reservoir are some houses, and there is no protection from their sewage infiltration reaching it; but a little lower down, on the same side, are brick-fields, between which and the reservoir is an intercepting ditch, which would prevent any risk from that quarter. The whole of the head of this valley is thickly populated, and the surface-drainage must make its way into the pond. On the southern side we saw this process in operation. The bank above consists in great part of garden ground, with houses, pigstyes, etc. From this bank various supplies of water were taken. At one point, where water was oozing from the bank, it was gathered by a shallow tract, apparently originally intended to carry off such water, but, when we saw it, devoted to a very different purpose, for at one point it was dammed up by a quantity of clay, and the water diverted into a brick structure, whence it passed by a pipe into the reservoir—just as we had seen at Clive Reservoir, already mentioned as receiving the Ecclesbourne water. A portion of the water in this reservoir is derived from a heading running horizontally for some distance into the ground.

These constitute the sources of the Hastings water-supply on the west; and here again it must be concluded—

First, that the great bulk of the supply is derived from surface-drainage, and that, too, in a district generally more thickly populated and more cultivated than on the eastern side of Hastings.

Second, that, inasmuch as the Old Roar Reservoir is the most important in point of size, the chief supply of Hastings must be looked upon with great suspicion, and is likely at any time to prove dangerous.

Third, that the supply from springs or wells, being mixed with surface-drainage water, must, in like manner, become suspicious, however pure originally.

In the town of Hastings itself, and close beside the gas-works, are two wells, one eighty, the other nearly 500 feet deep. Into this deep well a great part of the water-supply, whose sources have been already discussed, finds its way, and is thence pumped out and transmitted to the different parts of the town. The water thus pumped up is not perfectly clear; it generally contains some very fine sand, which it is difficult to get rid of, and must frequently contain other impurities according to the source of supply.

Of course the supply in the town is intermittent, some parts being supplied thrice a week—we will not say that any are less frequently supplied,—some are so more frequently. In the older part of Hastings, water is supplied every day, but in a peculiar way. The water is first of all sent into subterranean reservoirs, and thence pumped out by the people themselves. These pumps are only open during a certain number of hours a day, and the people must take their turn in securing their daily supply, entailing a considerable amount of waiting. We do not know the quantity sent into these underground tanks. As there are few or no cisterns in this part, the water has to be stored away in vessels of various kinds, in which it is not likely to improve. Even the supply for the water-closets has to be procured in this way—greatly to the detriment of the public health. The inhabitants of these parts also complain that the water was sometimes turbid.

In many parts of Hastings are private wells, some yielding a considerable supply. One of these we particularly noted, in George-street, which was described as being largely used, and being resorted to by people at some distance. The manifold risks and dangers of the use of pump-wells in cities and large towns have been so often and so fearfully manifested as to need no word of caution from us.

St. Leonard's is supplied by a deep well at Hollington. This is an excellent example of a deep well; its walls are quite dry, showing that there is no infiltration of surface-water, and the whole supply comes from a boring at the bottom of the well. Were all the Hastings water like this, nothing could be said against it.

Having spoken of the sources of the Hastings water, a few words may be said as to its storage. These being in great measure dependent on rainfall, some provision must be made for gathering the produce of the wetter months for the dry season. This is simply done in this locality by building a dam across a valley. No particular trouble seems in many cases to have been taken as to the walls of these ponds, which are for the most part neither bricked nor paved. They are totally uncovered, and are liable to be filled to overflowing by large falls of rain, draining cultivated land, gardens, and houses. This surface-water is sure to be muddy and to contain organic matter. By long standing a certain proportion of the mud carried down will subside, and be deposited at the bottom of the pond, carrying with it a varying proportion of organic matter, the whole forming an accumulation at the bottom of the pond, the nature of which it is not pleasant to contemplate. A proportion of the organic matter will remain suspended in the water, and some of it may become oxidised.

Not much will thus be rendered innocuous. For, though the oxidising process goes on tolerably rapidly in quickly flowing and well-aërated water, little change takes place in motionless ponds.

In the large waterworks supplying London there are acres of basins for subsidence and filtration. When the water has stood for a time, and subsidence has partly taken place, the water is drawn off through the filtering-bed, which constitutes the bottom of the basin. The top of this is then skimmed off, before the water is readmitted, and the beds are renewed from time to time. There can be here no permanent accumulation of either mud or organic deposit. Not so at Hastings: there the mud forms at the bottom of the ponds, and the lower the water gets the more likely is it to be mixed up with the mud; so that the water, instead of being purer, is likely to be fouler during the dry portion of the year.

We say nothing of the animalcules which are sure to be developed in both mud and water.

Organic matter, or the products of its decomposition—as nitrates, ammonia, etc.,—are not of necessity harmful. For instance, dead leaves are not poisonous. But the presence of organic matter, or of its metamorphic products, in any quantity, shows a liability to contamination which should never be overlooked or neglected. Where one kind of organic matter is found, others may exist. We can never tell when the germs of typhoid and other fevers, of cholera, and so on, may make their appearance in an organically impure water. We may know something of the outbreak of one of these epidemics, but we never know where it will end.

It is abundantly clear from the above inquiry—

1. That a great part of the water-supply of Hastings comes from polluted sources, and should not be used for domestic purposes.

2. That the supply of good water, from springs and deep wells, is spoiled by being mixed with the surface-water.

3. That even were the available deep-well and spring water supplied alone, the quantity would be totally inadequate to the wants of a town like Hastings.

To these deductions follows, as a simple corollary, that new sources of pure water should be sought. Where, it is beyond our province, as representatives of the medical profession, to say; but this matter has already been ably dealt with by a skilled geologist.

To the second portion of our inquiry, whether the supply, such as it is, is sufficient in quantity, we have, in our medical capacity, but little to say. Oceans of tainted water would, from our point of view, be insufficient. But it has been admitted, and it has been shown, as in 1874, that the supply is not what it should be, either in quantity or quality, and that, under certain conditions, it may fail. This is quite enough for our purpose. Where there is any risk of incurring a great disaster, steps should be taken to obviate or prevent it. How best to do so others must show.

By way of conclusion, we have not much to add. Hastings is a spot singularly favoured in many ways by Nature. It is at once a favourite summer resort, and a winter retreat for delicate invalids. To many in Hastings these summer and winter birds of passage, to say nothing of more permanent residents attracted by the salubrity of the climate, represent their means of livelihood. The classes just named have, we think, a just right to ask that everything should be done to enhance rather than diminish the benefits derivable from such a health-resort. Foremost amongst these is a plentiful supply of pure water. The inhabitants of Hastings will, we are firmly convinced, find it at once their wisdom and their interest to secure, at whatever cost, this supply, the want of which must as surely militate to their disadvantage in more ways than one.

We might add that our observations were made at a time pre-eminently favourable to the water-supply. Much rain had fallen shortly before, whilst, however, time for subsidence had elapsed.

Our inquiry and our remarks have been dictated in the same spirit. We do not desire to do Hastings wrong, but to make Hastings right. What we have seen, we have seen; what we have heard, we have heard; and we have endeavoured to make a clear distinction between the two. In Mr. Topley's report the authorities have the report of a geologist of standing and repute. Let them forthwith have such a report from a civil engineer of like standing; and let them boldly adopt the measures he would propose to carry out Mr. Topley's indications.

THE ROYAL VISIT TO INDIA.

We have received from our Special Correspondent, travelling in the suite of his Royal Highness the Prince of Wales, the following interesting account, relating chiefly to his Royal Highness' expedition to the Terai. Our Correspondent's letter is dated from Aden, March 19:—

I am glad to say that his Royal Highness leaves India in quite as good, if not better, health than when he arrived; and has, I think, thoroughly enjoyed an expedition which cannot but be profitable to India. The party have, on the whole, had excellent health, considering the change of climate to which they have been exposed; and a wonderful immunity from disease, considering that this has been an unusually unhealthy year in India. Cholera has prevailed in an epidemic form throughout Southern India, giving us some anxiety, and necessitating a modification of the programme of his Royal Highness's progress. And on returning to Bombay, we found the most severe epidemic of small-pox that has been experienced there for years. This, again, required care, with sanitary and quarantine precautions. Fortunately, all escaped infection, and are now on their way home in good health. But we have not been altogether free from disease and accident. Hog-hunting caused a couple of fractured collar-bones, an injury to the face, and a concussion of the brain to different members of the suite; but they have happily all quite recovered. One was sent home a little earlier than the Prince's departure on account of congested liver; and there have been the usual number of bowel complaints, some amounting to slight dysentery, occasioned by extremes of temperature in the North-West and Punjaub, where the thermometer fell sometimes 40° between midday and midnight; but all these have passed away.

The expedition to the Kumaon and Nepaul Terai was very successful: twenty-eight tigers, two leopards, three bears, was the bag of *feræ naturæ*, besides a large quantity of deer, hogs, and small game. There was no sickness; and malaria, so active for a great part of the year in this locality, was apparently inert when his Royal Highness was there. The camp was very large. There were 800 elephants, 600 camels, and several thousand men; but the sanitary measures taken were successful, and good health was maintained throughout the expedition, which lasted nearly a month.

The Terai, you probably are aware, is the tract of lowland lying at the foot of the Himalayas. It is from eighteen to twenty-five miles broad, and consists of forest and extensive plains of grass, intersected by nullahs and by streams of beautiful clear water running from the hills. It is called Terai or Turai, from the Persian word *tur* (moisture). The belt of forest just between it and the first rise of the hills is known as Bāber, from *be* (without) *ab* (water). This region, from the Dhera Dhoon to the Brahmapootra, is for the most part uninhabited, for the reason that from the month of May till December it is so unhealthy that no one can live there. In the healthy part of the year it is visited by people who graze cattle, and a few who cultivate certain patches of ground, but for the most part it is in a state of primeval wildness. There are a few wild tribes, such as the Taroos, probably descendants of the aboriginal inhabitants, the autocthones of the country, before the Aryan invasion, who live there and seem to acquire a tolerance of the climate, but even they suffer.

This region abounds in game, and is great shooting ground. The tiger; the leopard, or panther as some call him; the clouded tiger (*Felis macrocetis*),—a leopard also; the lynx, and several tiger-cats; the bear (*Ursus labiatus*); civet cats,—are all found here. The elephant, the rhinoceros, the buffalo, the sambur (*Cervus Aristotelis*), the gôen or swamp deer (*Cervus Duvancellis*) or barasingha, the cheetul or spotted deer (*Cervus axis*), the hog deer (*Cervus porcinus*), the karkar or barking deer, or muntjac (*Cervulus aureus*), the antelope or black buck (in the plains), the *Gazella Benetta* or ravine deer (not common; belongs more to the open country—the ravines), with the clukara or four-horned antelope,—are all to be found; the porcupine, the common Indian hare, and the striped hare; the wild boar—two kinds (one a very small one, *very* rarely found, known as Hodgson's pig.) Such are the running game to be met with. The rhinoceros and buffalo are now driven far east, and are not found in the portions of the Terai we visited. As to

flying game, there is the florican, the pea-fowl, the black and the swamp partridges, the quail, the snipe, the solitary snipe, pigeons of various kinds, and small birds; wild ducks, and cranes of various sorts, of which the best is the kurkursal, or demoiselle crane, or small coolung. The great python, attaining to eighteen or twenty feet, is found in the grass and swamps; and the alligator abounds wherever there is water enough in the pools and rivers, where also is found the savial or fish-eating alligator.

So you see there is a large choice of game; and you can imagine that, with a line of five hundred elephants, and such experienced hunters as Sir Jung Bahadoor and the Terai officers to show the way, his Royal Highness had opportunity of seeing good sport. The camps were frequently changed, and the most favourable encamping grounds selected. The season being favourable, and all precautions taken against disease, the result has been most successful, and not a single case of fever resulted. The camp life in the Terai, even in February and March, is not quite free from anxiety, as the conditions which give rise to deadly malarious poisoning for one half of the year cannot be *altogether* in abeyance or inert during the other half. But with care the risk is small, and I am glad to say in this instance it proved so.

His Royal Highness has seen India thoroughly, and he has felt some of the inconveniences of the climate: for certainly nothing can be much worse than Bombay in November—the heat and damp are most oppressive; and the early part of March is far from cool. The voyage home is rather trying at this stage, for here at Aden the thermometer stands at 83°; whilst the wet-bulb only indicating three or four degrees evaporation, shows how damp and consequently oppressive it is. The Red Sea will probably prove the same for the first three days, but as we get north to the Gulf of Suez colder weather may be expected.

I hope we shall soon be in England now, though our visits to various ports *en route* will probably detain us till early in May.

Canon Duckworth went to Peshawur when his Royal Highness went to the Terai, and got an attack of typhoid fever, which detained him at Lahore when returning. The last report says he is doing very well.

A Centenarian.—The Secretary of the Liverpool Mercantile Marine Service Association has announced the death of Captain John Oliver, at the age of 102 years. The deceased had been a pensioner on the Aged Seamen's Fund in connexion with that institution. He fought at Trafalgar under Nelson, and had been seventy years at sea.

Arts Examinations.—At the half-yearly examination of candidates for the diplomas of Fellowship and Membership of the Royal College of Surgeons, which has just been brought to a close, and the result communicated to the several candidates, it appears that for the first-named distinction there were 33, and for the membership 134, making a total of 167 candidates. Of this number, 29 passed for the Fellowship, 69 for the Membership, 67 candidates failed in both, and 2 were left to complete their examinations.

Appointment of Mr. Lister on the General Medical Council.—At the Court of Windsor, on March 24, her Majesty in Council was pleased, by and with the advice of her Privy Council, in pursuance of the provisions contained in the fourth and eighth sections of the 21st and 22nd Vict., c. 90, to appoint Joseph Lister, Esq., F.R.S., Regius Professor of Clinical Surgery in the University of Edinburgh, to be for five years a member for Scotland of the General Council of Medical Education and Registration in the United Kingdom, in the place of Dr. James Warburton Begbie, deceased.

The late Cook to St. Bartholomew's Hospital was on Tuesday brought up for trial at the Central Criminal Court, charged with stealing food belonging to the Governors; his wife, who was committed at the Police-court for the same offence, was ordered to be discharged, as it was decided that she had acted under the influence of her husband. The receiver of the stolen meat was also placed upon his trial. Both the prisoners pleaded guilty; and it was stated that the hospital authorities in instituting the prosecution were not influenced by any vindictive feeling towards the prisoners, one of whom was an old servant of the institution, but were solely acting on public grounds, because the robberies were discovered to have been systematic, and not the result of a sudden temptation.

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

On taking up my appointment, in the year 1844, as assistant to Robert Froriep, the Prosector at the Charité, I found that the autopsies were at that time somewhat irregularly and unmethodically performed. The Prosector himself made but few examinations, and these only by special requisition; the greater number were performed, without any technical plan, by the Charité surgeons—young medical men, subsequently styled "assistants," who had not yet passed the State examination. No minutes of the proceedings were made at the time, and only when the examination was over were notes taken down from memory. Froriep himself but very rarely gave a course on post-mortem examinations; he did so only once during my experience. Notwithstanding his eminent scientific attainments and his great manual dexterity (perhaps, indeed, on account of these his qualifications—at any rate, as a consequence of their limited practical employment), there was but little thoroughness in Froriep's method; in many respects, indeed, it was so ill adapted for the purpose, that it was a matter of difficulty to make any discoveries by its means.

Thus, to take only one example, it was his custom, when examining the spinal cord, to divide it longitudinally, from before or behind, by one long straight cut, and to dissect it in two equal lateral halves. This certainly made a very elegant section, and to do it properly required practice and care; but, however well it was performed, there were but very few cases in which it was of any use. The natural consequence was that Froriep's attention was directed principally to the membranes and roots of the nerves, and that the commonest and most important alterations in the white substance remained unnoticed.

I therefore had a double task to perform, especially after I became Prosector in 1846. On the one hand, I aimed at causing the autopsies to be made by one person, at introducing a system of regular note-taking, and of collecting these notes in order to obtain a useful series of reports. This was a matter of no great difficulty, after many startling incidents had shown how thoroughly erroneous were the results obtained in the absence of technical skill. It very soon happened that every clinical teacher and class-director became interested in the fact that the post-mortem examinations were made by my hand. When, in the year 1849, I accepted the call to Würzburg, I left behind me a large collection of reliable reports. Unfortunately, only a few fragments of these were forthcoming when I was recalled to the Charité in 1856.

On the other hand, it was necessary to discover a regular method for pathologico-anatomical investigation, and to introduce a definite employment of technical terms, which could be adhered to as a rule for all ordinary cases. Such a method I have perfected as years have rolled on, and it has now been sufficiently long in use for its value to have been tested by experience. It has naturally been formed into shape from a double point of view. The first requirement was that it should permit of the most complete insight possible into the extent of the alterations in every organ; and, in the second place, in order to provide for a distinct demonstration adapted for educational purposes, such an arrangement was necessary as would cause the least possible disturbance in the connexion of the parts examined. There were therefore these two problems, to some extent opposed to each other. They have nevertheless been solved in a satisfactory manner.

I have at present no intention of discussing this method in all its details. This has been done, to a certain extent, in the recent regulations drawn up, for the guidance of the medical jurist when making autopsies for legal purposes, by the Royal Committee of Science for Medical Affairs, under date of January 6 of this year (1874), and confirmed by the Minister of the Ecclesiastical, Educational, and Medical Departments, under date February 13 of the same year, and to which I may refer.

(a) From the *Charité-Annalen*.

It is true that these regulations do not correspond in all particulars with our system. This depends, in part, upon the difference in the nature of the tasks—which, for example, is very striking in every step of the external inspection, this latter being far more important for the medical jurist than for the pathological anatomist. Another point is that it has been thought expedient in the deliberations of the Committee to make certain alterations, which permit of a more simple and rapid manipulation of those organs which are less important for legal purposes. Taken as a whole, the regulations are invariably an expression of the knowledge, acquired through long experience, of the most suitable arrangements for conducting post-mortem examinations.

The necessity for superseding the old rules of November 15, 1858, had gradually become very urgent. Strictly speaking, these were already antiquated at the time of their issue. They had no sooner appeared than I pointed out their defects, and drew particular attention to the necessity of insisting—in autopsies for medico-legal purposes, as in everything else now—upon completeness of examination and exactness of method, both in the investigation and in note-taking, so that it might be decided—subsequently, though not in anticipation—whether there was any significance or importance in what was observed, or whether it was accidental and unessential. —(*Deutsche Klinik*, 1859, No. 2.) There was, in truth, even at that time, no difference of opinion on these points. The regulations certainly continued in force for fifteen years; this, however, is accounted for not merely by the legitimate bias of the authorities against too frequent changes, but still more so by the recognition of the fact that, before making demands, which, in no trifling degree, exceeded the limits of that amount of technical medical training which had previously been deemed sufficient, it would be necessary first to train a larger number of well-educated medical jurists. This held good not merely with regard to the microscopical examination necessary in so many cases, but even with reference to the ordinary anatomical technicalities of post-mortem examinations.

So long ago as 1859 I indicated in my lectures the direction which the change should take. I then stated as follows:—"The present generation is conversant with pathological anatomy only as a supplement of the clinic. As a rule, the clinical teacher determined while the patient was alive which organ was to be the object of investigation; and the autopsy likewise was usually confined to that organ, or at least dealt with all the others only in a secondary manner. The cliuical anamnesis consequently decided the course of the anatomical examination. We all know what was the result. The fact is that we can further the advance of medical science in the most essential manner by acquiring the habit of submitting all the other organs of the body to a minute examination; for it is obvious that we can do as much by anatomical as by clinical examination." I ought, indeed, perhaps to have said that we have to do more by anatomical than by clinical observation, for the one reason that the anatomical examination must be completed once for all, and does not admit of repetition; whereas we can at the bedside, as a rule, return again and again to the same case, and if any omission has occurred in one examination, it can be remedied in the next or a subsequent one. But, irrespective of this, there is a great difference between being able to get directly at an internal organ and examine it in every particular, and having to content ourselves with following out and realising certain symptoms.

Medico-legal technics—with all due deference to the independence of forensic medicine—will, however, always go hand-in-hand with pathological anatomy; for this latter is the more universal: it has to deal with cases of all kinds, and for that reason is a great protection against that one-sidedness with which medico-legal practice is so much encumbered. As a matter of fact, it must be conceded that the great majority of medico-legal reports have exhibited such an astonishing sameness, even in their phraseology; such a very peculiar style, nowhere else to be found; such a want of real objectivity, that it was an extremely tedious business to read through any number of them consecutively. There was such an amount of similarity among many of them that it might have been thought that they all referred to the same case.

The number of better educated physicians has gradually increased. The new examination for the North German Bund, and more recently for the German Empire, recognises pathological anatomy as a special subject, and also tests the candidates in pathological histology. A more intimate knowledge of pathologico-anatomical technics and microscopical manipulation has been thereby introduced; and it was therefore high time, considering that the examination-rules of September 25, 1869, had now been six years in force, to lay down similar directions for the forensic examination, and afterwards to institute regulations for conducting autopsies for medico-legal purposes. This has now been done, and it is to be hoped that the innovation will prove very beneficial, and promote the efficacy of the laws; for a not insignificant portion of the administration of the criminal law is entirely dependent upon a correct and objective examination on the part of the medical jurist.

Experience, indeed, teaches us that the great majority of cases in which the Courts are compelled to appeal for advice to the Medical Colleges and to the Committee of Science for Medical Affairs, refer to those autopsies in which either the examination or the note-taking has been so irregularly performed that the nature of the case still remains ambiguous. It would, I am sure, be a matter of no difficulty to collect a great number of examples in which the faulty performance of the autopsy has rendered obscure cases in themselves clear and simple, and has made unintelligible those which were at all ambiguous. This observation explains the increasing number of the revision remarks, which are so complained of by many physicians, and also the necessity for inserting many detailed directions—perfectly obvious, but not always attended to—in the regulations for the due performance of autopsies. The revision remarks having been brought to the cognisance of the State Attorney and the Court, the prosecution of an accused person can be resumed; this, for a long time, had not been possible, owing to faulty examinations and the very arbitrary opinions expressed by those who performed them.

After such experiences, which, considering the evidence obtained in the medical examinations with reference to the ordinary way in which cases are investigated and observed, may easily extend in various other directions, the practical necessity of laying down strict rules appeared quite imperative. In like manner, there could be no doubt that, for educational purposes, and for the majority of ordinary cases, a methodical procedure in post-mortem examinations presupposes the establishment of a definite plan.

It is scarcely necessary to point out that there are many cases in which deviations from this method are not merely allowable, but also absolutely necessary. The individuality of the case must often determine the plan of the examination. But we must not begin with individualising, nor make a rule of the exceptions. The expert may allow himself to make alterations, supposing they are well grounded,—but he must be able to remember his motive for so doing, and also to state it.

For this purpose, however, a full and intimate acquaintance with the reasons why the plan or rule has been laid down is quite imperative. The method should be practised, not mechanically, but systematically, as it has for its basis well-weighed experience, and not mere casual observations. He who is conversant with these reasons will also be able to judge of their correctness, and of the occasions when a departure from the rule is indicated. Thus the rule will be that when the cranial cavity is opened, the exposed parts—viz., the dura mater, the great longitudinal sinus, the pia mater, the surface of the cerebral hemispheres—must be first examined, and described in succession. But if the dura mater is adherent to the skull-cap, the best plan is to divide the former before forcibly detaching the latter, and to remove the skull-cap with the dura mater adhering to it; for if long and violent attempts be made to separate the skull-cap from the still closed and adherent dura mater, this latter usually gets torn, the brain itself crushed, and the parts so altered that sometimes their original condition is quite undiscoverable. In new-born infants and in children these parts are, as a rule, adherent; so that in these young subjects, if we wish to avoid the risk of converting the brain into a mass of pulp, we must make an alteration in the method adapted for examining adult cases. But if these adhesions are found in adults as individual appearances in exceptional cases, we must also in such cases make an alteration in the method to be pursued.

In a systematic and scientific performance of an autopsy nothing is more difficult, and at the same time more important, than the insight into the reasons for pursuing a definite order of sequence in every detail of the examination. Let us therefore consider this point somewhat minutely. The course of the examination is generally dependent upon the order of

succession. If for ordinary cases we require a definite process and a prescribed order, we do so not merely because such an arrangement is the surest guarantee for the completeness of the examination, and the best preventive against omitting important parts, but for the still greater reason that an unmethodical plan is the greatest possible obstacle to the subsequent collection of valuable reports. An unmethodical examination artificially and prematurely obliterates the existent condition of the parts.

Let us take a few examples. In many examinations the position of the diaphragm is of the greatest importance. This, generally speaking, cannot be determined if we open the thorax before the abdomen, or even at the same time; or if, after first opening the abdomen, we do not examine the diaphragm before opening the thorax. In former times, when the physicians allowed the assistants to make the post-mortem examinations, the custom was almost universal for a dissecting-room servant to open the thorax and abdomen before the arrival of the medical staff. The object was to save time and trouble. It soon became evident in forensic practice that such a proceeding as this made it impossible to define exactly the state of the thorax and its contents. In new-born children especially, it is necessary to ascertain carefully the position of the diaphragm, because in them the main question hinges upon the establishment of respiration; and not merely this, but the extent to which respiration has been carried is the important point. On this account the direction was that the abdomen should be opened first. The regulation of 1858 was in this respect quite correct. Section 17, *a*, ran as follows:—"After the abdomen has been opened, the position of the diaphragm is to be noted with reference to the corresponding ribs; and to ascertain this correctly in new-born children the abdomen should be opened first, and subsequently the thorax and head." Unfortunately, this very proper direction was made obscure by the words immediately preceding it. They ran thus:—"The respiration test must now be commenced, and, for this purpose, (*a*) after the abdomen has been opened," etc. This preface was altogether out of place, for we do not determine the position of the diaphragm with a view to the respiration test, but both are co-ordinate means for establishing the fact that respiration has been performed. Still worse, however, was the ambiguity involved in the choice of the expression "opening." Taken by itself the word is not synonymous with "dissection," but the medical jurists made use of "opening" in the sense of "dissection," and instead of opening and dissecting the thorax immediately after opening the abdomen and determining the position of the diaphragm, they finished the dissection of the abdomen before they even opened the thorax. Indeed, this bad practice was so universal, that even when, as occasionally happened, a more enlightened physician examined the thorax first, and then dissected the abdomen, he was blamed for so doing by the medical boards in their revision reports.

What, however, is the consequence of thus first dissecting the abdomen? I will assume that in the removal of the spleen, the stomach, and the liver, the diaphragm has not been cut, although this indeed frequently happens; but on cutting through the veins of the liver (in removing this organ), and on opening, as particularly directed, the inferior vena cava, it is impossible to prevent the blood escaping partially or, if not coagulated, completely from the right auricle through the large venous trunks which have been opened. If, after this has been done, the thorax be examined, it is quite possible that the right auricle and the right side of the heart may be found collapsed and containing little or no blood, in cases where proper examination would have revealed an entirely opposite state of things. How often it happens that the report is, in consequence, very different from what it ought to be, and the opinion based thereon also falsified!

For this reason the new regulation directs, what I have for years taught, that, under all circumstances, the abdomen is to be first opened, but not dissected. It is only necessary in this stage to determine the position of the diaphragm, as well as that of the organs, any abnormal contents of the abdomen which may possibly be present, and the colour of the parts exposed. Then the thorax is immediately to be examined, unless there is some cogent reason for departing from the rule. The suspicion of poisoning is always admitted to be a reason of this nature, as in this case the whole of the examination centres in the stomach; and every precaution must be taken to place it and its contents, without loss or change, at the disposal of the law.

The regulation, that, as a rule, the dissection of the abdomen is to follow that of the thorax, but, on the other hand, that the abdomen is to be opened, and its general state determined before the opening of the thorax, has necessitated, in the new regulations, the altering of certain directions referring to the minutes of examinations. It is to be hoped that medical jurists will readily familiarise themselves with these changes, and it is not necessary further to allude to them. On the other hand, it appears to me that it is not superfluous to explain why it is that we ought to determine the general condition of the abdominal organs before opening the thorax. In reference to this, the new regulations order as follows, in section 18, line 2:—"In addition to this, the position, colour, and other appearances presented by the exposed intestines, and also the occurrence of any abnormal contents, are next to be specified, and the position of the diaphragm to be determined by examining it with the hand."

It is evident that the position of the abdominal viscera cannot be exactly determined after the thorax has been opened, and the anterior attachments of the diaphragm to a great extent divided. The further the examination of the thorax proceeds, the more numerous the organs which are removed, and the more freely the connexions between the diaphragm and parts of the thorax are divided, the looser does this muscle become, and the greater the displacement of the abdominal viscera towards the thoracic cavity. A further examination may reveal something previously unnoticed, and necessitating a comparison between the position of the abdominal viscera and injuries of the abdominal walls, and we may wish to examine thoroughly the relations to each other of two of the abdominal viscera; but the previous opening of the thorax will render all such attempts nugatory. I need only mention those by no means rare cases in which incipient peritonitis is discovered, and where it becomes necessary to ascertain whether the peritonitis was caused by injury or was due to a pathological process in any one of the abdominal viscera. In a case where the spot which exhibits the signs of a limited peritonitis is not exposed when the abdomen is opened, it will scarcely be possible to determine the causal connexion if the position of the viscera has been much disturbed before the spot has been discovered.

(*To be continued.*)

FROM ABROAD.

Unusual Non-puerperal Uterine Hæmorrhages.

In the *New York Medical Record*, January 29, under the above title, there appear some interesting remarks made by Dr. Fordyce Barker during a discussion at the New York Academy of Medicine.

There is a class of cases, he observed, in which the hæmorrhage occurs independently of any peculiar condition of the uterus itself, as certain conditions of the ovaries. Thus, *acute ovaritis*, although very rare in non-puerperal women, may be induced by strong sexual excitement, or by some sudden shock, emotional or physical, and give rise to profuse hæmorrhage by inducing increased fluxion towards the uterus. *Ovarian dysmenorrhœa*, too, is sometimes attended with profuse uterine hæmorrhage, although deficient discharge is more common. There is in these cases what has been termed the "ovarian temperament," the ovarian function being very active and fully completed, while the uterine function and development are imperfect. These cases are characterised by an excitable, nervous, or hysterical temperament and early menstruation, the periods being preceded for two or three days or more by languor, nausea, headache, pains in the breast, and severe pain in the ovarian region—the discharge, when it does appear, being in some cases excessive. These cases of ovarian dysmenorrhœa and menorrhagia are not very rare; and in some instances benefit results from administering full doses of bromide of potassium for a few days previous to the menstruations, leeching being added at the commencement of the ovarian symptoms. Absolute rest in the recumbent posture must be maintained during the entire epoch. In some of these cases the "shock" and depressed condition induced will be such as to call for treatment by appropriate means. *Acute ovarian displacements*, such as a sudden prolapsus of an ovary from effort, or produced by constipation, may, by the great congestion it causes, give rise to menorrhagia, which may

extend, accompanied by great pain, over two or three menstrual periods.

Menorrhagia and metrorrhagia may also be due to *conditions of organs remote from the uterus*, or so-called *constitutional causes*. This hæmorrhage may be the result of obstructed circulation through the portal system or the right cavities of the heart, and also from certain diseases of the kidneys. And disturbed brain action from emotional causes may be followed by violent uterine hæmorrhage, entirely unassociated with local affections of the uterus. Other constitutional causes of such hæmorrhage may be regarded as *toxic*. Thus, under the continued influence of malaria, menorrhagia, if not very profuse, may become unduly prolonged by reason of the general impairment of the constitution, and the defective nutrition of the uterine bloodvessels. The same toxical effect may result from the exanthemata; and Dr. Barker refers to a case of measles in a girl eleven years of age, in whom the exhaustion produced was equal to anything that he had ever seen in the adult female from profuse hæmorrhage. Relief was at length obtained by introducing an alum cone into the cervix. He had also seen four cases of this hæmorrhage in the subjects of scarlatina.

Another class of cases Dr. Barker describes as probably dependent upon a *peculiar constitutional cause*. A woman who has been free from uterine disease, and, perhaps, has borne one or two children, suddenly begins to grow stout—so that from being thin and spare, she increases from fifteen to fifty pounds in weight, or even more. With this remarkable tendency to obesity there is, in some cases, a diminution of the loss of blood at the periods, but in others there is extensive uterine hæmorrhage. They are perplexing cases, for the severity of the flow gives rise to the suspicion of serious uterine lesion. The most careful examination, however, fails to detect this, the only thing explanatory of the hæmorrhage being the increased size, and consequent plethora, of the uterus. Dr. Barker believes these cases are by no means rare, many having come under his notice. The appearance of these women is usually healthy; but although the countenance is flushed, they are anæmic—the slightest emotion or exertion causing the capillaries to be surcharged and the face flushed. When they are treated for anæmia, instead of continuing to increase in weight, they diminish in size and weight as they improve in health and strength. These patients almost invariably believe that they are suffering from disease of the heart, and they are very liable to attacks of palpitation, and frequently complain of being awakened at night with the beating of the heart stopped. The acetate of ammonia and saline cathartics should first be administered, in order to deplete the blood of its excess of watery elements; next, chlorate of potash will be found a valuable agent, from its influence in changing the condition of the blood; and then come the preparations of iron.

In immediate association with this class of cases may be placed *chlorotic menorrhagia*, which, although less frequent than chlorotic amenorrhœa, is met with by anyone having an ordinary amount of practice.

Another form which is constantly met with is *menorrhagia associated with the climacteric period*. In many cases it is associated with the tendency to become corpulent which some women manifest at the period of the menopause; and in some of these the menorrhagia may act conservatively by relieving dangerous plethora. But it may also occur in the thin and spare, and is usually a source of great anxiety to the patient. When the uterus is found to be increased in size and weight the patient should employ ergot suppositories (Squibb's aqueous extract ℈ij., cacao butter ʒ j., into twelve), introducing one morning, noon, and night—the patient carrying it high up into the bowel and keeping the recumbent posture for at least an hour after. These are to be employed for a week prior to menstruation, and also throughout its duration. Dr. Barker prefers this mode of administering ergot, as easily managed by the patient or nurse, and as avoiding the production of troublesome abscesses in the skin of the abdomen, which he has very frequently found to be a consequence of hypodermic injection. When the hæmorrhage is prolonged, he has recourse to iodoform cylinders, which have rarely been required to be repeated beyond the second menstrual period. They are composed of iodoform ʒ ijss., gum tragacanth gr. xv., with a sufficiency of mucilage to make ten cylinders, each an inch and a half long. One of these is to be carried completely into the cavity of the uterus, and retained there by placing against the cervix a pledget of cotton-wool. The introduction is to be made daily for five or six days prior to menstruation. The only objection to the suppositories is the excessively disagreeable odour that attends their use, patients often complaining of a most disgusting taste in the mouth in less than two minutes after the introduction; but the results of their employment are most satisfactory. These cases of climacteric hæmorrhage are very common, and very troublesome to the practitioner. By the use of the ergot suppositories the chronic engorgement present may generally be overcome; although sometimes they may be required at each period for several months, as the tendency to engorgement is very difficult to overcome at the time of the menopause. When the menorrhagia persists, there is good reason for suspecting lesion of the lining membrane, the cicatrisation of which, Dr. Barker supposes, is produced by the iodoform. Formerly, he used for this purpose sulphate of zinc, and in profuse hæmorrhage the solution of persulphate of iron; but in all the cases in which the iodoform cylinders have been used for some days prior to menstruation, there has been no subsequent hæmorrhage sufficient to require the persulphate.

German Colonies for the Insane.

Medicinalrath Dr. Reimer, of Dresden, and formerly Medical Director of the Asylum at Görlitz and Sachsenberg, observes (*Deutsche Med. Wochenschrift*, January 29) that when the successful working of the colony of Fitz-James, near Clermont, under the management of the Brothers Labitte, was adduced by Griesinger and others, the reply used to be that this was a foreign institution, which did not admit of being adapted to the circumstances of Germany. How successful it was, and how unexaggerated is the account that has been published of it, he formerly convinced himself by careful personal examination; and he is now in the fortunate position of showing the practical results that have been obtained on German soil, which, if small as compared with those observed at the French colony, must give renewed courage to the friends of progress. Here, again, is an example in which the governments of the smaller States have led the way to improvement.

The colony of Einum was opened as an offshoot of the Hanoverian Asylum at Hildesheim, on April 1, 1864. It is situated half a German mile from the parent institution (this rendering the necessary intercourse between the two establishments somewhat difficult), and now contains forty-five patients, or 11 per cent. of the 400 male patients of the Asylum. But as a like number is employed in field and garden work at the Asylum itself, this raises the total to 22 per cent. of lunatics employed in the open air; and the Director Snell is of opinion that with the increase and improvement of the Asylum the proportion will go on increasing. The colony possesses fifteen cows and other domestic animals, besides a large quantity of poultry. Cabbages and turnips are cultivated with great success, and the luxuriance of the wheat crops is the wonder of the inhabitants of the village. Carried on at first at a loss, the colony had in 1874 a balance of 1479 thalers; but the most gratifying fact is the increasingly favourable influence it is exerting on its inmates. The sense of order and activity is, the director observes, powerfully stimulated through the living machinery of an active husbandry, and in most of the patients a more or less warm interest is generated for that which has been striven for and produced by their exertions in common. Under the regulated operations of the day, in many of the patients their delusions and the painful sensations of the past become diminished in intensity. A new home seems to have sprung up for them, which they merit as the work of their own hands; and they feel the blessing of honest labour, which is not entirely wanting even in their blunted sensibility. The patients live in the colony in a state of entire freedom.

The colony of Zschadras, attached to the Saxon Asylum at Colditz, has made yet more rapid progress, which is in some measure due to its being only twenty minutes' distance from the parent establishment, which also receives only male patients. There are more than 800 in number, and the number of the colonists rose gradually from 5 to 10 per cent., and by 1874 had increased to 26·39 per cent., therefore to more than a fourth of the entire number. The financial success of the establishment has been very complete, the original capital employed now yielding 7 per cent. The favourable influences produced on the mental and bodily condition of the colonists have also surpassed all expectation. The working capabilities of some of them underwent so great an increase as to be readily acknowledged by the neighbouring farmers. All pursued their work together with contentment and without notable disturbances. Periodical maniacal excitement became

diminished, and patients, who within the walls of the asylum were deaf to all attempts at arousing them from their lethargy, soon became some of the most useful workers on the farm.

Every friend of progress in treating the insane must rejoice at these results; and the conclusions which the "green-tablers" (red-tapeists) and statisticians had come to, that not more than from 5 to 10 per cent. of the inmates of asylums can be employed in the open air, must be abandoned even in Germany. The question has now advanced from the condition of a project to that of a well-attested success as an improved therapeutical agent. The results obtained quite confirm those published by Labitte concerning the colony of Clermont. The latter, however, is on a far larger scale, 300 insane of both sexes being employed at an expense of one franc per diem for each male, and ninety-six centimes for each female. No constraint is employed, and the only punishment resorted to is the replacement of the patient within the adjoining asylum. To obtain all the advantages derived from Clermont, there must be an asylum for the reception and retention of recent cases as long as the period of excitement lasts, and this must be at only ten or fifteen minutes' distance from the scene of agricultural employment, which is large enough to employ twenty-five, thirty, or more per cent. of the entire number of inmates.

Dr. Reimer regrets that there is a strong tendency to go on building new asylums on the old plan, so that in the Prussian Rhenish Provinces, where there are already ten public asylums, four more are being erected, each capable of holding from 200 to 300 patients. These establishments only provide very insufficiently for the occupation of the patients, and are unable to compass by far the most important branch of this—field labour in free colonies; and the fear is that the use of means of personal restraint will again be revived. Indeed, some recent discussions exhibit a dangerous tendency in that direction.

REVIEWS.

A Course of Operative Surgery. With Plates drawn from Nature by M. Léveillé, and coloured by hand under his direction. By Christopher Heath, F.R.C.S., Surgeon to University College Hospital, and Holme Professor of Clinical Surgery in University College, London. Part I. London: J. and A. Churchill.

This work, the first instalment of which is now before us, promises to be one of mark—such, indeed, as we have not seen in recent days. Not only is the author well known to be a skilled anatomist and sound practical surgeon, but he has that experience which comes of twenty years' teaching of practical surgery. Moreover, he has secured the aid and (as the French say) collaboration of the best anatomical draughtsman of the day. The outcome of the whole is excellent. The plates contained in the part are four in number—the first representing operations on the eye, the others the anatomy of the upper extremity, and the modes of securing the various vessels of this limb at different points, one or two incidental operations being included. The only work we have seen of recent times which can at all be compared to the present work is the well-known one of Bernard and Huette; but this is exactly an instance where comparisons become "odorous," the present work being so far in advance and such an improvement on the older treatise. The work is to consist of five parts similar to the present fasciculus, each of them costing the marvellously low price of seven-and-sixpence. How this can be done so as to make the work remunerative is to us a marvel, seeing that all the plates have been coloured by hand.

Good Condition: a Guide to Athletic Training for Amateurs or Professionals. By C. J. Michôd, late Assistant-Secretary to the London Athletic Club. London: Robert Hardwicke, Piccadilly. Pp. 90.

The recent wonderful pedestrian performance at the Agricultural Hall will doubtless give an impetus to the practice of athletic exercises, and many, especially among the young, will be induced to tax their powers severely in attempting to accomplish noteworthy feats in pedestrianism. The practice of athletic exercises, especially among the young, should be encouraged, as there is no doubt that, if judiciously carried out, it conduces in a marked degree to health and strength. In order to accomplish great feats of physical endurance without injury to the body a certain amount of training is required, and it is of the highest importance that the course of training adopted is such as is calculated to improve the physique and add to the stamina. It is to be feared that permanent injury often results from young amateurs undergoing the course of training and dieting themselves after the manner adopted by professional runners. Mistakes like these would be avoided if those about to enter upon the practice of athletic exercises were to study the rational rules laid down by Mr. Michôd in his "Guide to Athletic Training." He gives plain directions what to take and what to avoid, and shows that no great hardships need be borne by those who wish to distinguish themselves in athletic pursuits; moreover, he proves that the rules of strict training are not antagonistic to the laws of health.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 3rd inst., and when eligible will be admitted to the pass examination:—

Bickerton, Thomas H., student of the Liverpool School.
Blackader, Alexander D., of the McGill School.
Carter, Charles B., of St. George's Hospital.
Carter, Godfrey, of the Leeds School.
Chambers, Alfred E., of the Manchester School.
Child, Warwick L., of the Manchester School.
Close, Percy, of the Leeds School.
Edwardes, William W., of St. Mary's Hospital.
Fraser, Donald B., of the Toronto School.
Gilbert, Henry L., of the McGill School.
Gofton, Joseph E., of the Newcastle School.
Goyder, Charles McI., of the Newcastle School.
Graham, Charles R., of the Manchester School.
Hall, Thomas L., of the Birmingham School.
Leak, Hector, of the Manchester School.
Lloyd, George J., of the Birmingham School.
Owen, William H., of the Liverpool School.
Patson, Alfred, of the Montpellier School.
Porter, Thomas M., of the Liverpool School.
Reckitt, John D. T., of the Leeds School.
Scott, William F., of the McGill School.
Skelding, Henry J., of University College.
Steele, Charles E., of the Liverpool School.
Swann, Alfred, of the Birmingham School.
Sweet, William J., of the Newcastle School.
Thompson, Edward C., of the Leeds School.
Tucker, Milton M., of the Toronto School.
Webb, Vere G., of the Glasgow School.
Welch, Samuel A., of the Birmingham School.
Wilkie, David W. B., of the Melbourne School.
Young, Thomas M., of the Newcastle School.

At this meeting, Mr. John Whitaker Hulke, F.R.S., the lately elected member of the Board, in the vacancy occasioned by the decease of Mr. Gascoyen, took his seat as an examiner.

The following gentlemen passed on the 4th inst., viz.:—

Atkinson, John M., student of the London Hospital.
Baddeley, Charles E., of King's College.
Ball, William M., of St. Bartholomew's Hospital.
Batson, William L., of St. Bartholomew's Hospital.
Batty, William E. L., of the Liverpool School.
Birch, Richard C., of the Manchester School.
Cadman, Arthur W., of the Manchester School.
Chadwick, William F., of the Manchester School.
Collier, Mark P. M., of St. Thomas's Hospital.
Cox, L. Frederick, of King's College.
Deakin, James, of the Manchester School.
Elliott, Horace, of the Westminster Hospital.
Fardon, Edward A., of the Middlesex Hospital.
Faulkner, John T., of the Manchester School.
Fisher, Frederick B., of the London Hospital.
Hetherington, George H., of St. Mary's Hospital.
Hine, Leonard A., of the Middlesex Hospital.
Hodgson, John, of the Manchester School.
Lendon, Alfred A., of University College.
McCausland, Albert S., of the Middlesex Hospital.
Margerison, Richard, B.A. Cantab., of St. George's Hospital.
Matthews, Valentine, of King's College.
Messum, Gordon B. W., of Guy's Hospital.
Ozanne, Frederick N., of St. George's Hospital.
Pearce, Henry, of St. Mary's Hospital.
Smith, Robert P., of St. Thomas's Hospital.
Tabb, John F., of Guy's Hospital.
Vinrace, John H., of the Birmingham School.
Wilson, Frederick, of the Manchester School.

The following gentlemen passed on the 5th inst., viz.:—

Bamber, Charles J., student of St. Bartholomew's Hospital.
Batchelor, George A., of the London Hospital.
Bourns, Newcome W., of St. Bartholomew's Hospital.
Boyd, James S. N., of University College.
Castle, Hutton, of St. Thomas's Hospital.
Dennys, George W. P., of St. Bartholomew's Hospital.
Fuller, Thomas W., of Guy's Hospital.

Graham, Albert W., of student St. Bartholomew's Hospital.
Hall, John L., of St. Thomas's Hospital.
Hart, Marmaduke J., of Guy's Hospital.
Jennings, Edward, of St. George's Hospital.
Lockwood, Charles B., of St. Bartholomew's Hospital.
Macdonald, George A., of St. Thomas's Hospital.
Maylard, Alfred E., of Guy's Hospital.
Michael, Henry J., of St. Thomas's Hospital.
Morley, Edward J., of Guy's Hospital.
Parry, Robert, of Guy's Hospital.
Patterson, George H., of St. Bartholomew's Hospital.
Pollard, Bilton, of University College.
Shann, William A., of St. George's Hospital.
Shaw, John, of St. Thomas's Hospital.
Smale, Morton A., of St. Mary's Hospital.
Stewart, John McD., of the Middlesex Hospital.
Vlieland, Charles J., of St. Bartholomew's Hospital.
Woodman, William E., of St. Thomas's Hospital.

The following gentlemen passed on the 6th inst., viz. :—

Burn, Stacey S., student of St. Bartholomew's Hospital.
Capel, Thomas, of the Westminster Hospital.
Clark, Charles A. D., of St. Bartholomew's Hospital.
Clitherow, Robert E., of King's College Hospital.
Coates, George, of St. Bartholomew's Hospital.
Coles, Donald A., of St. Bartholomew's Hospital.
Crick, Samuel A., of St. Thomas's Hospital.
Dingley, Allen, of St. Bartholomew's Hospital.
Dummere, Howard H., of St. George's Hospital.
Floyd, John, of the London Hospital.
Gill, Richard, of St. Bartholomew's Hospital.
Gunlette, Thomas D., of St. Thomas's Hospital.
Hay, James F., of St. George's Hospital.
Lewis, John G. S., of Guy's Hospital.
May, Albert E., of St. Mary's Hospital.
Mayburg, Lysander, of St. Thomas's Hospital.
Neale, John E., of University College.
Newman, Arthur J., of the Middlesex Hospital.
Ogle, Charles J., of St. Bartholomew's Hospital.
Prickett, Marmaduke, of St. Bartholomew's Hospital.
Stuart, Henry O., of Guy's Hospital.
Sylvester, G. Holden, of St. Bartholomew's Hospital.
Taylor, Sidney J., of St. Thomas's Hospital.
Tennant, William D., of St. Thomas's Hospital.
Wadham, Frederick, of St. George's Hospital.
Webster, Ridley M., of the Middlesex Hospital.
Wright, Henry C., of St. Bartholomew's Hospital.

The oral examination of the 159 candidates will be brought to a close on Monday next. The following were the questions on Anatomy and Physiology submitted to them at the written examination, when the candidates were required to answer four (including one of the first two) out of the six questions, viz. :—1. Describe in detail one complete revolution of the heart's action. 2. Trace the changes by which the temporary are replaced by the permanent teeth; and state the period at which each of the permanent teeth generally appears. 3. State all the points of difference between a dorsal and a cervical and lumbar vertebra respectively. Mention the ligaments by which two dorsal vertebræ are connected. 4. Give the attachments and relations of the muscles supplied by the anterior tibial nerve. 5. Describe in order the parts seen on removal of the deltoid muscle. 6. Describe the rectum. What are its relations to the other viscera of the pelvis? How is it supplied with bloodvessels and nerves?

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, March 30:—

Berdoe, Edward, 56, Victoria-park-road, E.
Boodle, George Adolphus, St. George's-road, St. John's-wood.
Capon, Herbert James, St. Bartholomew's Hospital.
Clark, John George, West Hartlepool.
Griffith, Gilbert Saunders, Argyll-road, Kensington.
Prideaux, Thomas Engledue Pejanus, Blackheath.
Sellon, John William Gore, Budleigh Salterton, Devon.
Smith, William Henry, Sibsey, Lincolnshire.
Stelfox, John Brideoake, Middleton, near Manchester.
Thompson, Edmund John, Appleby Magna, Leicestershire.

The following gentlemen also on the same day passed their primary professional examination:—

Brown, John Alexander, King's College.
Gamble, Ernest Langwith G., St. Thomas's Hospital.
Hawkins, Cæsar Frederick, London Hospital.
Keer, John Cordy, Guy's Hospital.

APPOINTMENTS.

WHISTLER, W. MACNEILL, M.D., M.R.C.P.—Physician to the Hospital for Diseases of the Throat, Golden-square, W.

NAVAL AND MILITARY APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—The promotion of Surgeon-Major Robert de Burgh Riordan, which appeared in the *Gazette* of November 30, 1875, dated October 25, 1875, is antedated to September 30, 1875; Surgeon John Waring Belcher, M.D., to be Surgeon-Major, *vice* James Carroll, M.D., retired on half-pay; Surgeon James Doran, M.D., to be Surgeon-Major, *vice* Charles Christopher Piper, retired upon temporary half-pay.

BIRTHS.

ADAM.—On March 30, at Caterham, the wife of James Adam, M.D., Medical Superintendent of Caterham Asylum, of a daughter.

DAVIS.—On February 29, at Coimbatore, Madras Presidency, the wife of Surgeom-Major Wm. Farquhar Davis, M D., F.R.C.S., of a son.

O'CONNOR.—On April 1, at Welshpool, Montgomeryshire, the wife of Bernard O'Connor, A.B., M.D., etc., of a son.

WINSLOW.—On March 30, at Hammersmith, the wife of Dr. Henry F. Winslow, of a daughter.

MARRIAGES.

HOPKINS—ADAMSON.—On March 29, at the Congregational Church, Rugeley, John White Hopkins, Esq., surgeon, of Eccleshall, to Mary Elizabeth, eldest daughter of Swainston Adamson, Esq., of the Running Hills, Armitage.

JARDINE—MONKHOUSE.—On March 30, at St. Paul's Church, Grange-over-Sands, Lancashire, James Jardine, M.D., Surgeon-Major Army Medical Department, half-pay, of Templand, Thornhill, Dumfriesshire, to Mary Elizabeth, eldest daughter of Isaac Monkhouse, Esq., of Melbourne House, Penrith, Cumberland.

KESTEVEN—FLINT.—On March 28, at the parish church, Croydon, William Henry Kesteven, M.R.C.S., of Tufnell-park-road, Holloway, to Beatrice, eldest daughter of Richard Flint, of Croydon.

PAGE—PARKER.—On March 30, at Great Orton, Cumberland, Herbert William Page, M.A. Cantab., F.R.C.S., of 28, New Cavendish-street, London, to Alice Mary, youngest daughter of the late Rev. Christopher Parker, M.A., of Skerwith Abbey.

DEATHS.

BURROWS, Sir JOHN CORDY, J.P., M.R.C.S.E., etc., on March 25, at his residence, 62, Old Steyne, Brighton, aged 62.

HAWKINS, JANE FRANCES, eldest daughter of the late Anthony Montmonnier Hawkins, M.D., of The Gaer, Monmouthshire, on April 1, at 10, Montagu-place, Bryanstone-square, in her 73rd year.

JONES, GEORGE JOHN, M.R.C.S.E., L.S.A., late of Prittlewell, Essex, on March 30, at 406, Clapham-road, S.W., aged 63.

LETHEBY, Dr., on March 28, at 17, Sussex-place, Regent's-park, aged 59.

ROBINSON, FREDERICK, Esq., son of the late Dr. Robinson, of Swinton Park, Manchester, on March 20, at Manchester.

O'BRIEN, WALTER CREAGH, M.D., eldest son of Madder O'Brien, solicitor, Court of Chancery, Ireland, on March 24, at Maidstone, Kent, aged 36.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

COUNTY LUNATIC ASYLUM, SNENTON, NOTTINGHAM.—Assistant Medical Officer. Must be unmarried, and be registered under the Medical Act. Applications, with testimonials, to the Chairman of the Committee of Visitors, under cover to Kemp Sanby, Clerk.

EPPING UNION.—Medical Officer. Salary (exclusive of extra payment for surgical operations, quinine, leeches, trusses, midwifery, and vaccination) £119 per annum. Applications to John Windus, Clerk to the Board, by or before April 20.

ESSEX LUNATIC ASYLUM.—Second Assistant Medical Officer and Dispenser. Must be duly qualified to practise as a surgeon and apothecary, and single. Applications to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood, Essex.

ISLAND OF LEWS, SCOTLAND.—Medical Officer for the Parish of Uig. Applications, with testimonials, to Walter Rose, Inspector of Poor, Stornoway, N.B.

KING'S COLLEGE HOSPITAL.—Assistant-Surgeon. For particulars apply to J. W. Cunningham, Secretary.

METROPOLITAN FREE HOSPITAL.—Honorary Surgeon. Candidates must be Fellows of the Royal College of Surgeons, or pledged to become such within twelve months from the date of election. Applications, with testimonials, to the Committee, Commercial-street, Spitalfields, E., on or before April 15.

MIDDLESEX HOSPITAL.—Physician. Applications to the Weekly Board before twelve o'clock noon, on any Tuesday until further notice.

ST. THOMAS'S HOSPITAL.—Assistant-Surgeon and Apothecary. Applications and testimonials to the Treasurer, Counting-house, Westminster-bridge.

WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—House-Surgeon. Properly qualified. Applications, with testimonials, to the Secretary of the Hospital, Leamington, on or before April 26.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Christchurch Union.—Mr. Robert Sterling has resigned the Eastern District; area 14,311; population 4510; salary £100 per annum.

Richmond (Surrey) Union.—Mr. W. A. Satchell has resigned the Kew District; area 341; population 1033; salary £10 per annum.

Southmolton Union.—Mr. R. B. Robinson has resigned the Third District; area 6236; population 529; salary £25 per annum.

Walsingham Union.—The Gunthorpe District is vacant; area 3954; population 1138; salary £15 per annum; also the Workhouse, salary £35 per annum.

APPOINTMENTS.

Bridge Union.—James E. Schön, M.R.C.S. Eng., L.S.A., to the Fourth District.

Leeds Union.—Alex. McLeod S. Hamilton, M.D. Ire., M.R.C.S. Eng., to the Workhouse and Schools.

Neath Union.—Charles Pegge, M.R.C.S. Eng., L.S.A., to the Britonferry District.

St. Giles, Camberwell, Parish.—Herbert Chabôt, M.R.C.S. Eng., L.S.A., to the Workhouse and Infirmary.

Stratton Union.—John H. Tuke, M.R.C.S. Eng., L.S.A., to the Week St. Mary District.

Whitehaven Union.—James Dick, M.D., L.R.C.S. Edin., L.S.A., to the Harrington District.

Woodbridge Union.—Henry J. Hibberd, M.R.C.S. Eng., L.S.A., to the Fifth and Eighth Districts and the Workhouse.

Dr. Campbell Brown, of Liverpool, was last week appointed Public Analyst for the county of Lancashire.

Sir William Wilde.—We regret to learn that this distinguished and highly respected member of the profession is seriously ill at his residence in Merrion-square, Dublin.

We have ascertained that the number of candidates now undergoing their primary examination at the College of Surgeons is 159, against 180 in the corresponding examination of last year, showing a diminution of 21.

Resolvent Ointment.—The following ointment is employed at the Hôtel-Dieu with great success by Dr. Noel Guéneau de Mussy:—Camphor one, chlorhydrate of ammonia four, and lard thirty parts.—*Union Méd.*, April 1.

University of Cambridge.—Professor Humphry gives notice that his course of lectures "On the Muscular System of Man and other Vertebrates" will commence on Wednesday, May 3, at 1 p.m., and be continued on Wednesdays and Saturdays. Members of the Anatomical Class and students not requiring certificates may attend without fee.

Westmoreland Lock Hospital, Dublin.—Rawdon Macnamara, Esq., F.R.C.S. Irel., representative of the Royal College of Surgeons in Ireland on the General Medical Council, and Surgeon to the Meath Hospital, has been appointed Surgeon to the above institution, in room of the late Dr. John Morgan. The election took place on Saturday, the 1st inst. The emoluments of the office are £100 per annum.

Epidemic Icterus.—In the *Berliner Klinische Wochenschrift*, Dr. Klingelhœffer gives an account of an epidemic of jaundice occurring in the village of Heusenstamm, commencing October, 1874, and terminating March, 1875. During this interval there occurred, amidst a population of between 1300 and 1400, thirty-five cases which came to his knowledge, besides several slighter ones not recorded. The patients were all of middle age, none being under twenty, the sexes being in equal number. The prevalence of the disease could not be traced to any cause beyond a great prevalence of "stomachal catarrh," which, common in summer in that locality, is usually rare in winter.

Cremation.—The Préfet of the Seine having appointed a Commission to advise him as to the adoption of this procedure, their report has just been published, the general conclusion of which is as follows:—"The Commission has ascertained the possibility of obtaining the incineration of the body unaccompanied by the disengagement of any deleterious gases: it recognises the advantage of this incineration over burial in a common grave in a hygienic point of view; but it finds in cremation very serious inconveniences with regard to legal medicine, and consequently in relation to public safety. The Commission has entirely reserved all questions of a sentimental and moral nature."—*Révue Scientifique*, March 18.

Torsion of Arteries.—M. Tillaux terminates an important essay read at the Société de Chirurgie with these conclusions:—1. Torsion is applicable to arteries of every calibre, and more especially to large arteries. 2. A single forceps is required, whatever be the size of the artery. 3. The artery should be seized obliquely, and not in the course of its continuity, and in such a manner as to comprehend within the teeth of the forceps all the three tunics of the vessel in their entire breadth. 4. The torsion should be continued until the portion seized is entirely detached. 5. The thrusting back the tunics towards the heart, as advised by Amussat, and the *limited* torsion of Amussat and the English surgeons, are useless. 6. Torsion is applicable to atheromatous and inflamed arteries. It is a valuable means of arresting hæmorrhage at the bottom of wounds. 7. It favours immediate union by the absence of a foreign body. 8. Like the ligature, it protects from primary hæmorrhage. 9. It is a better protective against secondary hæmorrhage than the ligature. Since 1871, M. Tillaux has exclusively adopted torsion, both in great and small operations; and in about a hundred great operations in which he has employed it, he has never met with either primary or secondary hæmorrhage.—*Gaz. des Hôp.*, March 25.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

New Source of Inguinal Disease.—It seems that the rinking mania is giving rise to all sorts of curious fractures and other forms of injury. The most recent we have heard of is inguinal swelling. This is serious. The further symptoms, whether affecting the skin, throat, or other parts of the body, will be most eagerly looked for. Perhaps we are on the borders of a great discovery!

Dermatologist.—Leprosy is a disease of rare occurrence in Europe. It was the Hindoo physicians who used to treat it with pills of arsenic and black pepper. See the dermatological collection presented by Professor Erasmus Wilson to the College of Surgeons.

A Guide to the Army and Naval Services.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you or any of your correspondents kindly state (in your columns, if you have no objection) if there be a *popular* guide to the Army and Navy Services; something that tells of the life that army and navy medical officers lead? I should also be glad to know if there be any such work bearing upon medical life in other than the English services.

April 3. I am, &c., M.B.

A Candid Examination.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having had several publications of the opponents of the Contagious Diseases (Women) Acts forwarded to me, I have always come to the conclusion hitherto, that, notwithstanding all the objections that can justly be urged against them, they afford the only practicable mode by which the great object in view can be attained. Very lately, however, my attention has been drawn to some other mode whereby to effect the purpose all parties have in view, and having read carefully the pamphlet ("The Contagious Diseases Acts: Would no Less Objectionable Measures Suffice?") it has occurred to me to ask your readers' attention to what I venture to call a candid examination of the solution proposed.

I assume, of course, that all sides have only the one great end set before them—the diminution and, if possible, the extirpation of that terrible disease which saps the strength of our soldiers and sailors, and does no less to our civilians in too many instances, punishing not only the guilty, but—what is perhaps more deeply to be lamented—entailing suffering upon the innocent, and causing these in their turn to be the unwitting agents of suffering to *their* children. Indeed, and for my own part, it is because of this last-referred-to evil that my sympathies are much interested in the question at all; and I believe that this is the very generally prevalent feeling in the matter. Now, then, the question is, How best to effect our common object? It must be admitted that the Contagious Diseases Acts in operation have some very ugly disadvantages, with whatever practicable prudence and general good sense and feeling they may be carried out. Doubtless too great power is given to the police, and most certainly *their* evidence should be corroborated by the testimony of an independent party, before a woman could be subjected to that punishment and bodily durance which these Acts allow, seeing that the police are not only witnesses, but virtually prosecutors in the given case. Passing by all that rhodomontade as to the heinous mistakes of the police, and the encroachments on personal liberty under these Acts, which their opponents so freely indulge in, it may be at once conceded that to carry them out with any desirable efficiency involves results not at all pleasant or satisfactory. That a woman who barters her body for the indulgence of an immoral act, and does so perfectly reckless of all the dire consequences to the innocent she may entail, has the same rights to personal freedom and immunity as she would otherwise have in common with other fellow-citizens, is a fallacy of too stupid kind to merit any consideration. But all this, notwithstanding, the question returns, Is the one desirable result attainable without the disadvantages which undeniably happen? The opponents of these Acts say—Yes. Their remedy, shortly, is the establishment of voluntary Lock hospitals. They maintain that diseased women would willingly seek admission to them, and remain till cured. I fear that from the very nature of the case this is too sanguine a view to take. Very likely a prostitute would seek for such admission when her disease had become so aggravated as to prevent the further prosecution of her trade; but I need not say here that long before that time she would have been the source of infection to many. That she would remain under the constraints of treatment beyond a period of amelioration, is an expectation which all the circumstances would not allow us to entertain. It is true that declarations of fact and opinions to the contrary of my conclusions here, are given in the pamphlet referred to; but it can scarcely be called uncharitable in anyone who is even moderately acquainted with the writings in question to doubt, if not to altogether deny, the accuracy of much that is asserted in the zealous opposition to these Acts. The writer of this pamphlet declares that "voluntary hospitals have answered admirably in London, Bristol, and Liverpool," giving figures to support his statement. But it is, confessedly, so difficult a thing to get at the real meaning of figures, even when *all* the figures are given, that in our present case it would be a benefit to the cause of truth and right if any of your readers would supply the necessary facts connected with the above declaration; for I believe I speak a feeling very generally diffused among all classes, in saying, regardless of the frothy declamation and party-coloured sentences of the opponents of these Acts, that a more desirable way than these Acts afford, if there be such, would be gladly welcomed.

I hope the foregoing makes clear the position now assumed—that an altogether desirable object being before us, a certain legislative procedure has been determined on for its attainment, but which has been found in practice not by any means so unqualifiably beneficial as had been anticipated by its supporters. Another plan has been proposed, and declared by its friends as satisfactorily efficient in itself where it has been tried, and unattended by those more clamant evils which more or less accompany the present course of action. Would it not, then, be wise (setting all prejudices aside) to see whether this other plan be what is claimed for it—an effectual remedy, so far as human agency can provide, for the terrible evils in question? I am, &c., L.R.C.P. Edin., &c.

Hanley, March 27.

PREVENTABLE ACCIDENTAL DEATHS.

From a statement of the Manchester Steam Users' Association it appears that from 1865 to 1875, inclusive, 579 explosions occurred, killing 684 persons, as well as injuring 1093 others. This institution was established in 1854 for the purpose of preventing these accidents. The Association contends that they may be prevented by the adoption of competent periodical inspection, and it is now taking steps with the object of procuring legislative intervention on the subject.

COMMUNICATIONS have been received from—

Dr. J. BURDON-SANDERSON, London; Surgeon-General C. R. FRANCIS, M.B., Sutton; Mr. F. GORDON BROWN, Hon. Sec. of Hunterian Society, London; Surgeon-Major M. C. FURNELL, Madras; Dr. HANDFIELD JONES, London; Mr. SPENCER WATSON, London; Dr. JULIUS ALTHAUS, London; THE SECRETARY OF THE EPIDEMIOLOGICAL SOCIETY, London; Mr. W. E. POOLE, London; Mr. JONATHAN HUTCHINSON, London; Mr. WAGSTAFFE, London; Mr. B. R. WHEATLEY, London; Mr. HENRY MORRIS, London; Mr. J. CHATTO, London; Dr. BRUCE, London; Mr. W. J. H. LUSH, London; Dr. SMITH, Reigate, Surrey; Dr. W. BATHURST WOODMAN, London; Dr. SYMES THOMPSON, London; Mr. GEORGE BROWN, London.

BOOKS AND PAMPHLETS RECEIVED—

Medical Report of the National Eye and Ear Infirmary, Dublin, for 1875—Luther Holden's Landmarks Medical and Surgical—Crombie on the Induction of Sleep and Insensibility to Pain by the Self-Administration of Anæsthetics—Bryant on the Practice of Surgery—Max von Pettenköfer on the Outbreak of Cholera among Convicts—Cassell's History of India, part iv.—Hamilton on Fractures and Dislocations—Clinical Lectures on Subjects connected with Medicine, Surgery, and Obstetrics, by various German authors—Playfair on the Science and Practice of Midwifery—Bentley and Trimen on Medicinal Plants, part vii.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—Annales de Ciencias Médicas—The American Practitioner for March—Gazeta Medica di Bahia—Nature—Obstetrical Journal of Great Britain and Ireland for April—Veterinarian for April—Monthly Homœopathic Review—Transactions of the Odontological Society of Great Britain for March—Archives Générales de Médecine for April—Philadelphia Medical Times for March—Darwen News—Practitioner for April—Popular Science Review for April—British and Foreign Medico-Chirurgical Review and Quarterly Journal of Practical Medicine and Surgery for April—Journal of Anatomy and Physiology for April.

APPOINTMENTS FOR THE WEEK.

April 8. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. Edward Dannreuther, "On Wagner and his Trilogy."

10. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. Mr. J. Knowsley Thornton, "On the Surgical Aspects of Pelvic Hæmatocele." Dr. Semple, "On the Pathology and Treatment of Cerebral Diseases."

11. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Gowers, "On the Development of 'Spindle-Cells' in 'Nested Sarcomas.'" Mr. Henry Morris, "Case of Intermitting Hydronephrosis, with Remarks on Hydronephrosis as a Cause of Abdominal Tumours."

12. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Dr. Sternberg, "On the Recent Epidemic of Yellow Fever in the United States of America."

HUNTERIAN SOCIETY (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Pye-Smith, "On a Case of Syphilitic Disease of the Trachea and other Organs." Dr. Sutton, "On Anorexia."

13. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

14. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 1, 1876.

BIRTHS.

Births of Boys, 1339; Girls, 1260; Total, 2629.
Average of 10 corresponding years 1866-75, 2323·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	855	841	1696
Average of the ten years 1866-75	794·7	781·8	1576·5
Average corrected to increased population ...	...	...	1687
Deaths of people aged 80 and upwards ...	...	...	73

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	16	6	2	29	...	1	1	2
North... ...	751729	...	22	7	1	19	1	6	1	1
Central ...	334369	...	5	1	...	8	2	1	...	...
East	639111	...	6	2	2	24	...	2	...	3
South... ...	967692	...	17	3	...	32	1	8	1	1
Total	3254260	...	66	19	5	112	4	18	3	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·321 in.
Mean temperature	45·3°
Highest point of thermometer	64·7°
Lowest point of thermometer	33·7°
Mean dew-point temperature	39·5°
General direction of wind	Variable.
Whole amount of rain in the week...	0·38 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 1, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending April 1.	Deaths Registered during the week ending April 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2629	1696	64·7	33·7	45·3	7·39	0·38	0·97
Brighton	100632	42·7	72	40	55·7	34·8	44·4	6·89	0·57	1·45
Portsmouth ...	124867	27·8	84	61	...	...	...	...	...	...
Norwich	83430	11·2	51	32	59·0	34·8	44·1	6·73	0·57	1·45
Plymouth	72230	51·8	36	37	52·0	32·5	42·3	5·73	0·83	2·11
Bristol	193539	44·8	166	107	57·4	33·7	42·8	6·00	0·84	2·13
Wolverhampton ...	72549	21·4	56	29	56·2	31·8	41·5	5·28	0·81	2·06
Birmingham ...	371839	44·3	310	206	55·3	31·8	41·8	5·45	0·91	2·31
Leicester	113581	35·5	100	40	63·5	31·8	43·3	6·28	1·15	2·92
Nottingham ...	93627	46·9	74	48	62·2	31·7	41·8	5·45	0·85	2·16
Liverpool	521544	100·1	427	340	52·0	31·9	40·9	4·94	0·11	0·28
Manchester ...	357917	83·4	320	257	60·0	33·0	43·0	6·11	0·83	2·11
Salford	138425	26·8	141	94	56·2	29·4	41·2	5·11	0·81	2·06
Oldham	88609	19·0	95	73	...	...	...	...	...	...
Bradford	173723	24·1	126	96	56·4	31·6	40·8	4·89	1·20	3·05
Leeds	291580	13·5	242	143	60·0	33·0	41·6	5·34	1·52	3·86
Sheffield	274914	14·0	233	121	59·7	32·0	41·0	5·00	1·80	4·57
Hull...	136933	37·7	109	71	55·0	34·0	42·6	5·90	2·28	5·79
Sunderland ...	108343	32·8	105	44	55·0	33·0	40·2	4·55	0·88	2·24
Newcastle-on-Tyne	139929	26·1	165	66	...	33·0	...	...	0·78	1·98
Edinburgh... ...	215146	51·3	142	93	54·0	32·0	39·3	4·06	...	...
Glasgow	545144	90·4	443	307	...	...	...	...	...	...
Dublin	314666	31·3	212	204	57·2	27·0	41·7	5·39	0·35	0·89
Total of 23 Towns in United Kingdm	8028595	37·7	6338	4205	64·7	27·0	42·1	5·62	0·92	2·34

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·32 in. The lowest was 29·03 in. on Tuesday afternoon, and the highest 29·66 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

SELECT LECTURES ON MEDICAL JURISPRUDENCE.

By FRANCIS OGSTON, M.D.,
Professor of Medical Logic and Medical Jurisprudence in the University of Aberdeen.

Lecture VI.

(*Concluded from page* 354.)

MEDICO-LEGAL ASPECTS OF DEATH.

(*c.*) We have now to turn to certain appearances on the surface and internal parts of the dead body, which are referable, though not limited, to the period we are considering, to which the somewhat vague term *lividities*, and others equally loose, have been applied. In order to avoid the error of confounding the different appearances which have been classed together under the common name of *lividities* by medico-legal writers, we shall separately consider here—(1), those of them which appear spontaneously *on the surface of the body after death*, and *before the access of putrefaction* in it, under the name of *cadaveric lividities*, the so-termed *external hypostases* of Caspar; and (2), those *internal lividities* which *follow death* and *precede decomposition*, simply known as the hypostases of most authors, or the *internal hypostases* of Caspar. This will sufficiently discriminate those external appearances, the effects of natural causes, from *ecchymoses, the result of violence during life;* and also from certain appearances, whether external or internal, which have been mistaken for *the results of increased vascular action or congestion before death.*

Cadaveric lividities of the first sort, then, are certain reddish patches which appear on the surface of the body in the act of cooling, giving to the previously pale skin a somewhat mottled appearance. Though at first usually of a pure yet dull red, they commonly soon deepen to a shade of colour varying from a livid or coppery red to a reddish blue. The skin presents no sensible elevation at the part, as in ecchymoses. Their shape, as first noticed, is extremely irregular, appearing as they do in isolated patches, which afterwards coalesce and cover large portions of the surface of the dependent parts of the body. (*Vide* Fig. 1, *supra.*) They are rarely wanting in this marked form when the body is examined at from twelve to twenty-four hours after death; though, occasionally, they are either absent or but faintly traced, as after death by copious hæmorrhages or anæmia. They are readily distinguishable from all other discolorations of the skin, by dividing the skin and subcutaneous areolar tissue at the part, as such incisions never yield "effused fluid or coagulated blood"; or, at the most, exhibit a few bloody points from the division of small veins in the skin or areolar tissue underneath it.

In speaking of these cadaveric lividities I have avoided the term occasionally applied to them by medical jurists—"suggillations,"—as this term is by a few authors restricted to ecchymosis proper, while the mass of writers employ it as synonymous with the appearance we are considering—a clashing of meanings which is rather unfortunate, and which ought if possible to be avoided.

These cadaveric lividities, or external hypostases, it will be seen from what I have said, readily admit of being distinguished from appearances likely to be confounded with them, by a little attention to the following criteria:—First, *their seat*, the superficial layer of the true skin; secondly, their extent, involving large portions of the body, or to be met with in different parts of it at the same time; thirdly, *their circumference*, though irregular and slashed, terminating abruptly, and not by a gradual fading into the surrounding colourless skin; fourthly, *the entire absence of extravasation of blood* at their site; and, lastly, by the *failure* in detecting *any trace of contusion or ruffling*, at the part, of the cuticle or true skin.

It is to be feared that a want of attention to these circumstances has led to the fatal mistake of confounding these lividities with the effects of violence during life. Thus, in two cases, for which we are indebted to Sir Robert Christison, criminal responsibility is believed to have attached to innocent individuals.

In the one instance, which occurred in Aberdeen in 1764, two persons were condemned for the murder of a relative chiefly on the evidence of "a broad blue mark" observed in the neck of the latter after death, "which the witnesses compared to that produced by strangulation," but which there was "reason to believe, from their own description of it," must have been "due to natural changes taking place after death."

The other case occurred in Edinburgh in 1808. Two persons were tried for the murder of a companion with whom they had been drinking and quarrelling, and who was discovered, soon after, lying dead in a wood, with marks of numerous contusions all over his body. On the trial the medical witnesses proved "that the apparent contusions were nothing else than the livid patches" sometimes met with on the body after natural death. The accused parties were consequently acquitted.—(Taylor, *Med. Gaz.*, *ut supra*, pages 314-15, *pass.*)

These cadaveric lividities, though their importance to the medical jurist must be obvious from what has now been stated, are not to be much trusted as indications of the reality of death, on account of their liability to be confounded with similar marks which may be met with on the body at or before death, and from which it is sometimes difficult to distinguish them without proceeding to divide the integuments. The appearances to which we refer—also sometimes loosely classed as suggillations—can scarcely be fitly characterised as hypostases, as they occur, not on the dependent, but on *the non-dependent* parts of the body; nor can they be called *cadaveric* lividities, since they are to be encountered occasionally on *the living* as well as on the dead. Livid patches of this sort are met with on the legs and feet of aged persons, and in the same situation on the bodies of those dying of scurvy, typhus, and other adynamic diseases. In subjects not belonging to either of these categories, these patches are *not infrequently* seen on the face; *often* on the front of the neck and upper and fore part of the chest; *sometimes* on the sides of the trunk; and *frequently* on the fronts and sides of the limbs, as in cases of apoplexy, hanging, suffocation, and especially after death from carbonic acid.

The same remarks apply to those diffused dusky-red patches met with on portions of the surface of the body, known as *frost-erythyms*, to which I have thought it proper to attach some value as indicative of death by cold, in two articles, one furnished to the sixteenth volume of the *British and Foreign Medico-Chirurgical Review*, page 485, and another (at the request of Caspar) to the first volume, new series, of the *Viertelschrift für Gericht. Med.*, page 149.

The discolorations of either of these sorts, however, are but rarely of so *extended a character* as cadaveric lividities. They have usually a *better defined outline*, while the blood, whose presence gives rise to them, is diffused in sparing quantity *through the areolar tissue*,—not incorporated with the true skin. Besides, *the respective sites* of the two appearances may serve sufficiently to discriminate the one from the other. The date of the first appearance of the true cadaveric lividities on the surface of the body has been fixed by Caspar at the period of from twelve to fifteen hours after death.

Turning now from the surface of the dead body to its *internal parts*, I must direct your attention shortly to *hypostases of the* more important *viscera*, originating, like the cadaveric lividities on dependent parts of the surface, in the gravitation of the blood after death. These internal hypostases are met with in their most marked shape in the brain, lungs, intestines, kidneys, and spinal cord. In *the brain* this phenomenon might be mistaken for the so-called congestive apoplexy. In *the lungs* this post-mortem appearance sometimes presents no unapt resemblance to pulmonary apoplexy, or to the first stage of pneumonia; as does its existence in the intestinal canal, and the veins of the spinal meninges, to inflammatory injection of these parts. The position of these several hypostases, especially in the lungs and intestines, will afford the best corrective of this possible error.—(Caspar, "For. Med.," vol. i. pages 25, 26.)

A few additional changes in the body, prior to the occurrence of its decomposition, call for a short notice at this place. One of the most prominent of these is what has been long known, from its delineation by the Father of Medicine, as—

1. *The facies Hippocratica* (this appearance is "characterised by sinking of the eyes, hollowness of the temples, sharpness of the nose, dryness and harshness of the forehead, sallowness of the countenance, and flaccidity and paleness of the lips)," which precedes death, continues to be recognisable after dissolution.

2. The *flattening of the soft parts* on which the body has

rested after death occurs from their loss of elasticity. (*Vide* Fig. 1, *supra*.)

3. Besides the disappearance of the lustre of the cornea, previously noticed, this part becomes subsequently opaque and milky; a film of mucus is seen adhering to it; while, from the diminution of the aqueous humour, it becomes sensibly flattened. These appearances, however, are known to be absent, as after death by carbonic and hydrocyanic acids, where the eyes continue for some time prominent and glistening.

4. An appearance almost constant in the dead body is a more or less flexed state of the fingers and thumbs, the latter from this cause being sometimes drawn in to the palms, and the fingers closed on them. It is best marked where the cadaveric rigidity is strongly developed, as after the sudden deaths of previously healthy adults with muscular limbs. Caspar lays it down that a body which, *in addition* to the appearances which characterise the first period after death, exhibits those of the *middle period*—softening of the muscles, succeeded by rigidity of these; external and internal hypostases; and coagulation of the blood—may be presumed to be that of a person who has been dead *within from two to three days* at the longest.—(*Ibid*, page 30.)

Having thus passed in review the succession of changes occurring in the body after death, prior to the commencement in it of decomposition, whether looked upon as signs of death or as serving to point out—*approximatively*, at least—the period after the extinction of life at which they may have respectively taken place, I have done so in what seemed to me the most natural order, examining (1) the phenomena derived from *the extinction of the vital functions*, and (2) those of the succeeding *changes*, which, while they precede decomposition, are known to be *incompatible with the maintenance of life*. I now come to the series of phenomena which appear later, and which date from, and take their rise in, the *putrefactive process* in the various fluids and solids of the body. In following out the successive steps of the putrefactive process, I have to advert to a series of medico-legal points of considerable interest and importance, as will be seen as we proceed.

This further and last stage of the body's change after death *commences*, as we have said, *with* the occurrence of *putrefaction*, and runs on to its *entire completion*. From particular causes putrefaction may be modified or arrested, such as by the exposure of the corpse to extremes of heat and cold—when in the one case it dries up and mummifies, and in the other the *status quo* may to a certain extent be preserved, but only to a certain extent. Short of this, the process may be hastened or delayed, so far, but only so far, as witnessed in interments in certain soils or localities of opposite characters as to moisture and dryness, or of non-absorbent or absorbent qualities. The concealment in a dry stone wall has been known—as in the specimen before you—to reduce an infant's body to the condition of a dried mummy; and last year (1875) the body of a new-born infant at the full time was found here in a servant's chest in the same condition. In this instance the body had been three months shut up; in the former probably from one to two years.

Fresh-burnt charcoal has almost unlimited power, when around a corpse in quantity, of resisting decomposition—as have, to some extent, when properly employed, certain antiseptics, employed in anatomical rooms; but with these we have nothing to do.

Certain gases are known to hasten, retard, or modify putrefaction. A *temperature of from* 60° *to* 90° of Fahrenheit (the heat of our summer) is the most favourable for the process of putrefaction, particularly if to this be added a frequent renewal of the surrounding atmosphere. In ignorance of this we sometimes find medical men directing the relatives of a dead person, when the interment is wished to be delayed as long as possible, to open all the windows, in order thoroughly to ventilate the apartment; while directions *precisely the reverse* should be given.—(*Ibid.*) A small apartment should be chosen; the doors, windows, and fireplace should be kept closely shut, and the body be enclosed in the coffin, with its lid down; of course, before admitting visitors, the air of the apartment should be renewed.

The *two gases* present in *the atmosphere*, both singly and in combination, favour decomposition; but the oxygen is known to have the greatest effect in inducing this change, as in *nitrogen alone* the process advances but slowly. *Carbonic acid gas* acts like pure nitrogen.

Putrefaction is always *slower in water* than in *the atmosphere*.

In water the process is very rapid when the fluid has a temperature of from 61° to 68° of Fahrenheit; and, on the contrary, very slow if the temperature of the fluid is lower than this.

It is generally admitted that putrefaction takes place more rapidly in stagnant than in running water. The water of privies retards it most of all. In such circumstances saponification is very readily produced.

In the earth the progress of the putrefactive process varies considerably, as we have seen, according to the character of the soil, temperature and humidity, dryness, etc. The deeper the corpse is buried, the slower its decomposition. Experience shows that, *cæteris paribus*, very young infants putrefy sooner than adults or old people; and *females* than males. When the body has been *mutilated*, or *solutions of continuity* are present *before burial*, decomposition is hastened. *Contusions*, *ecchymoses*, and *effusions of fluid* have the same effect. Persons perishing of *acute diseases* decay sooner than those that had been affected with *chronic maladies*. *Copious hæmorrhages* before death retard putrefaction; whilst, on the other hand, *eruptive diseases* and *inflammatory affections* hasten it. The *delay of the interment* hurries on the commencement of decomposition, and *vice versâ*. When the body is exposed *in summer*, opportunity is afforded for insects to deposit their ova, which, after burial or exposure to the air, becoming hatched, the larvæ forward the work of destruction.

The greater the *superincumbent pressure*, the slower the march of decomposition. A corpse interred *without a coffin* decays faster than a corpse buried in one; and the more numerous and closer the envelopes, the more is the process retarded.—(Devergie, "Méd.-Lég.," vol. i. pages 89 to 96, *pass.*)

The most abundant product of putrefaction is carburetted hydrogen, the evolution of gas in the decaying body playing an important part in the production of some of the most characteristic appearances in the dead body. This will be seen as we proceed.

LECTURES ON INJURIES TO THE HEAD.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital; Surgeon to Moorfields Ophthalmic Hospital and the Hospital for Skin Diseases.

Lecture IX.

ON THE SYMPTOMS INDICATING INJURY TO THE SURFACE OF THE BRAIN.

(*Continued from page* 329.)

Cases illustrating Symptoms in Compound Fracture.

Fracture of the Parietal Bone, with Depression and Laceration of Dura Mater—Secondary Trephining—Death on tenth day.

Aug. 12, 1863.—A child of six was kicked on left side of head by a horse. Temporo-parietal fracture, with depression. No paralysis.

„ 13.—Doing fairly.

„ 14.—Slight febrile symptoms and constipation.

„ 16.—Increase of fever; obstinate constipation.

„ 17.—10 a.m.: Spasms of facial muscles on left side, and of arm and leg on right side.
2 p.m.: Trephining and elevation.
6 p.m.: Spasms increased.

„ 18.—Spasms continue.

„ 19.—Spasms more frequent, but not so violent.

„ 20.—Febrile symptoms increasing, with exhaustion.

„ 21.—Death at 7 a.m.

Inability to speak during this period.

Autopsy.—Laceration and suppurative inflammation of the brain at the seat of injury; purulent arachnitis on left side.

The following case was not under my own care:—

Walter C., aged six, a labourer's child, was knocked down by a horse, and was supposed to have received a blow from its hoof. He was immediately brought to the hospital, when it was found that he had sustained a fracture of the skull in the left temporo-parietal region, where there was a scalp wound about an inch long and half an inch broad. There was evident depression, but to what extent could not be ascertained, as the temporal aponeurosis and muscle were entire, and consequently there was no exposure of the bone beneath. The little fellow was slightly drowsy, yet there were no marked symptoms of compression; the face was rather flushed, but he was a healthy, stout child, with a naturally florid complexion. The

pulsation of the brain was distinctly seen at the seat of the fracture. Water dressing was applied to the wound, and an aperient powder administered immediately. Milk diet and beef-tea were ordered.

August 13.—The child's bowels had not acted since admission; otherwise he was doing well. The powder was repeated.

16th.—No action of the bowels having taken place, half a minim of croton oil was ordered to be given at once. Up to this time no untoward symptoms had appeared, with the exception of the obstinate constipation and a little fever.

17th.—About 10.30 a.m. a convulsive twitching of the facial muscles was observed, especially on the left side—that being the injured side; there was a similar action of the *right* arm and leg. Being informed of this at his visit about 2 p.m., Mr. —— immediately trephined, and succeeded in elevating a piece of bone nearly the size of a florin, which was depressed about one-third of an inch. The tip of one's forefinger could be introduced between the skull and the depressed portion. Both the brain and its membranes were lacerated. There was some meningeal hæmorrhage during the operation, but it soon ceased. Ice was laid over the wound. About 6 p.m. the spasms were present in an aggravated degree. At 10.30 p.m. the patient was asleep and perfectly quiet.

18th.—After the administration of a turpentine enema, a worm was evacuated.

19th.—The spasms were not so violent, but more frequent.

20th.—The child's pulse was very rapid, respiration quick and short, and the pupils dilated. A blister ordered to the head. The bowels have not been relieved since the 18th.

21st.—The patient died at 7 a.m. From the supervention of new symptoms on the 17th, until death, the child was unable to articulate.

Post-mortem, nine hours after Death.—No rigor mortis present. There was a fracture of the skull in the anterior-inferior part of the left parietal bone, corresponding to the wound in the scalp. A portion had been removed by the trephine. The fractured bone was on a level with the surrounding bone. The membranes were extensively lacerated, and there was a considerable loss of brain-substance; also pus on the surface of the brain, surrounding the injured part. There was a large amount of fluid in the ventricles. Other organs not examined.

Blow on the Forehead—Compound Fracture of Right Side of Frontal Bone, with much Depression and Laceration of Dura Mater and Escape of Brain-substance—No Symptoms for twenty-four hours, and no Interference—Violent Convulsions, followed by Collapse—Trephining thirty hours after the Accident, and Removal of Bone—Death twelve hours after the Operation—Autopsy.

John O'D., aged about thirty-five. At six o'clock in the afternoon of August 27, 1862, I was summoned in haste to the —— Hospital to see a man who was stated to be in a most urgent condition after an injury to the head. On arrival, the House-Surgeon, Mr. D., informed me that the patient had been admitted the previous day, under the care of one of my colleagues, by whom he had also been seen about three hours prior to my visit, up to which time no symptoms had shown themselves. Suddenly, however, about an hour after Mr. ——'s visit, convulsions came on, after which the man relapsed into a state of collapse, in which his death seemed imminent. The injury had been received from a blow by a piece of brass which had become detached from a wheel revolving at great velocity. It was easily ascertained at the time of the man's admission that there was a compound and depressed fracture of the right side of the frontal bone, but as no symptoms of compression were present, it was decided to do nothing. He was able to give an account of the accident, and, in fact, remained wholly without head symptoms until 4.30 next afternoon, when, as just stated, violent convulsions occurred. Several hours before the convulsions the House-Surgeon had noticed that the man's aspect was altered—that he looked wild and was flushed, and that his manner was excited.

August 27.—I found the patient very pale, with rather livid lips; quite unconscious; breathing irregularly, and with a slight stertor; mouth open; eyes closed, but the left not completely; considerable ecchymosis in the right eyelid. The injury consisted in a depressed compound fracture of the right side of the frontal bone, the lower margin being about a finger's breadth above the orbit. The fragment was much depressed at its outer angle; the depression was great, the fragment being considerably below the entire thickness of the skull. A small portion of brain-substance lay in the wound. From the history, the man's insensibility and collapse might be considered to be those consequent on violent convulsions, analogous to what is seen after violent epilepsy. With regard to symptoms of localised mischief, we made out the following facts:—The eyes slightly diverged, and the left pupil was slightly larger than the right (paresis of third nerve). He could move all his limbs, and did so every now and then, moaning and appearing to be in great discomfort. He moved the left arm and leg much more frequently and freely than the right. The right knee was kept drawn up, the other straight out. If any attempt was made to move either limb, he resisted it with considerable muscular force. His cutaneous sensibility was greatly impaired in all parts, yet he would move his left leg when tickled or pricked, but only after a considerable time. No amount of irritation would cause him to move his right leg. The mouth was not distorted. There was occasional twitching (slight) of one or other cheek. His pulse was quickened and feeble; skin of all parts rather warm (a very hot day).

Operation.—Having laid bare the bone, during which he moved his head and made several slight cries, I applied the trephine on the outer side of the fracture, and easily by its aid obtained access to the under surface of the most depressed portion. It could not be elevated, however, until I had removed a sloping buttress which slanted down from the orbital margin of the opening to the depressed fragment, and acted as a wedge between the two. This removed, I elevated the depressed fragment, but could not get it into apposition. With Hey's saw I then removed the angles between the trephine half-circle and the hole, and drew away the large fragment. Afterwards numerous splintered portions, chiefly of inner table, and several of them lodged at considerable distances under the bone, were removed, being quite loose. During the operation, at one time there was profuse hæmorrhage from a sinus or large vein at the inner and lower angle of the opening. The blood was exceedingly dark; its flow ceased when the fragment was extracted. There was an aperture in the dura mater beneath the most depressed angle of the bone—viz., outer one—which just admitted the top of my forefinger. I passed in my little finger half an inch in order to ascertain that no foreign body had been driven into the brain itself. The brain did not bleed, and there was no clot under the dura mater. The brain pulsated with tolerable vigour. In the middle of the operation the man at one time ceased for at least a minute all respiratory movements, but his pulse remained of fair power. After the operation he looked better—*i.e.*, less pale and corpse-like; his pulse was slower and fuller. No alteration in sensibility of surface. His left eye looked outward more decidedly than before, and the pupil was twice the size of the other. Both pupils acted on exposure to the light of a candle very near. Ordered a turpentine enema.

At 10.30 (four hours and a half after the operation) I saw him again. He had twice called for "Ann" (his wife), but had not otherwise manifested consciousness. The chief difference was that his general surface was cooler. There was less divergence of the eyes, and the pupils were nearly of equal size. He bore the conjunctiva being touched without wincing, and no amount of pricking or tickling would make him move either leg. After my last visit he remained much as he had been before, until about two o'clock, when he began to sink. He had no convulsions, but gradually sank; and died about five in the morning, twelve hours after the operation, and thirty-six from the time of his admission.

Autopsy.—The dura mater beneath the opening, which at the time of the operation was pressed forcibly upwards into it, had now receded considerably, leaving a large hollow (collapse of brain).

The line of fracture extending to the left crossed the median line; downwards the roof of the orbit was involved. The dura mater was only injured at one spot—that, namely, immediately below the most depressed angle of bone. At this spot it admitted a finger. Having removed the dura mater, we found the brain-substance below the seat of injury much contused and broken up. The effects of the injury did not, however, extend deeper than the cortical substance. There was no effusion of blood beneath the dura mater. On the arachnoid adjacent were a few small patches of recent lymph. The pia mater generally was congested, as was also the substance of the brain itself. This congestion was apparent on both sides, but most so on the injured one.

All the cerebral nerves were carefully examined, more especially the left third, but there was no injury discovered

in any part of their trunks. A small quantity of blood-stained serum had accumulated in the middle fossa.

Compound Fracture of Right Parietal Bone, with Depression—Symptoms of Concussion, with Paralysis of Left Portio Dura from the commencement—Both Eyes directed to the Right—Gradual Supervention of Paralysis of the Left Extremities—Frequent Unilateral Convulsions—Death on the Fifth Day—Autopsy: General Arachnitis; Laceration of Dura Mater and of Right Hemisphere—Contusion of the Brain in many parts.

July 18 (Monday).—A dock labourer, aged thirty-six, fell into a ship's hold, and sustained a compound fracture of the right paricta bone, with some depression. He was conscious when admitted; paralysis of left portio dura; incomplete paralysis of left extremities; paralysis of left third nerve.

„ 19 (Tuesday).—Heavy and stupid.

„ 20 (Wednesday).—Paralysis of left limbs and side of face decided; eyes constantly directed to the right; occasional spasms of the right limbs.

„ 21 (Thursday).—Symptoms the same.

„ 22 (Friday).—Left pupil still widely dilated, and left limbs paralysed; severe convulsive seizures, affecting only the right limbs; able to speak at times; left knee hotter than the right. Death at midnight.

Autopsy.—Depressed fracture of right parietal, with laceration of dura mater; arachnitis; laceration of left fourth nerve; contusion of the brain at various parts, and especially of the surface of right hemisphere.

Henry J., aged thirty-six, a dock labourer, was admitted into the —— Hospital at 10.30 a.m. on Monday, July 18. The injury to his head had been received by a fall into a ship's hold. He had a compound fracture, extending transversely across the right parietal bone, and which could be traced for a length of two or three inches. The middle of this, the anterior fragment, was depressed to a depth of about half the thickness of the bone.(a) The pericranium adhered to the bone quite up to the edges of the fracture, and the injury to the scalp was not extensive. When he was carried in he was quite sensible, although rather stunned; gave an account of the accident, knew the day of the week, etc. His face, nose, and both ears were covered with blood from the scalp wound. No trickling of blood, either from ears or nose, was observed. He was in some degree of collapse; his extremities were cool. Pulse feeble, 71 beats in the minute. It was at once observed that he did not shut his left eye, and that his mouth deviated a very little to the right side.

Four o'clock same day.—Now lying apparently in tranquil sleep. Pulse 76, regular, and rather soft. The skin of his extremities cool, but not cold. No difference of temperature can be discovered. He has been noticed to move his left limbs, both arm and leg, less readily than those of the other side. He seems to feel less readily on this side than on the other. He is observed frequently to frown on the right side of his face, never on the left side. He will put up his right hand to brush away the flies from his face without opening his eyes. When his left arm is pricked, he does not move it (at least only rarely), but uses his right to protect it. It is certain that he feels much more acutely in his right temple than in his left. The left eyelid never quite closes when he shuts his eyes—at least, not at first; there is an aperture of at least a quarter of an inch. The more soundly he is asleep, however, the more nearly do the lids come together. There is a horseshoe-shaped patch of ecchymosis on the upper and lower lids of his right eye; the base and thickest part of this patch is on the inner side of his nose. There is no ecchymosis under the conjunctiva itself. Both pupils are large and dilated during sleep; both contract on lifting the lids, the right one more readily than the other. Both eyes look to his right; we have only once, during a prolonged examination, observed them to look either straight forwards or to his left: on this single occasion, for a very short time, they turned to the left; the right eye turned decidedly more than the left. The ecchymosis does not involve the tarsal part of the upper eyelid. He sleeps with his mouth shut; and, during expiration, his cheek puffs out on the left side.

(a) This statement records our impressions at the time. The autopsy evealed a much m ore extensive fracture than we had supposed.

During the next three days he got gradually worse, without any material change in symptoms. He still remained partially conscious, and would take his food. The paralysis of the left limbs became more and more decided. The deviation of the eyes to the right was constant. He had no rigors. The left pupil continued to be dilated and fixed. He was able to speak, but did so in a heavy, confused manner.

On the 20th and 21st he had several attacks of convulsive spasm affecting the right limbs.

Friday, July 22, 4 p.m.—His right pupil has now contracted to nearly the normal size, and acts fairly to light. The left is still dilated, and quite fixed. He still lies with his head turned to the right side, and his eyes looking to the same side. His left cheek still puffs out in expiration when his mouth is closed. He has had five convulsive seizures during the last twenty-four hours. His left arm and leg are never moved in these convulsions, and the left side of his face but little or none at all. His forehead is moderately hot; his hands more so. Pulse full and jerking, and without power; from 128 to 130 beats in the minute. His tongue is dry and brown. He recognised the nurse this morning and speaks to her, and has signified his wish to make water. He does not put out his tongue when told. He never moves his left arm, and does not appear to feel any irritation of it. The skin is pungently hot and dry. His feet are hot; the left knee is much hotter than the right one, but there does not appear to be the same difference between the feet. He does not appear to feel at all in the left foot, and only slightly in the right one.

He died on Friday, July 22, near midnight.

The autopsy was performed on Saturday, July 23.

Rigor mortis moderate. Pupils of equal size. Considerable ecchymosis over the right eye, on the right cheek, and behind the right ear. A little dry blood in right ear; none in left: this is probably accidental. A suppurating wound two inches long extending transversely over the front part of right parietal bone. In the middle of this wound is a fracture of the bone; a mere fissure, with slight depression of its anterior part. On removing the scalp, however, we find an extensive irregular fracture of the right parietal bone, involving a triangular portion of bone of the size of two crown-pieces, but very irregular, and in four fragments. At the upper part of the fracture the bone is scarcely depressed; but at the lowest and anterior angle the bone is depressed to a depth of about its own thickness. The posterior fissure extended backwards into the foramen magnum.

Brain.—The lateral sinuses contained clots of blood partially discoloured and quite soft.

Heart.—The right side of the heart was full of soft, loose coagula and fluid blood; the left contracted, and nearly empty. No fibrinous coagula in either.

Lungs.—The lungs were moderately congested at their posterior lobes, but not extremely so.

The upper surface of the right hemisphere was covered by layers of purulent lymph. This lymph was especially plentiful close to the edge of the longitudinal fissure, but did not extend much into it. There was an oblique laceration of the middle lobe on its external surface, extending outwards and backwards, and corresponding exactly with the laceration in the dura mater (not with any line of the fracture of the bone).

On the surface of the left hemisphere there was much less lymph effused than on the right, but there was still a considerable quantity close to the median fissure. The veins posteriorly were greatly congested. A thin layer of purolymph was found on the parietal arachnoid beneath the anterior lobes on both sides. The left fourth nerve was torn across at its origin from the valve of Vieussens.

There were two or three small dots of ecchymosis just beneath the surface in the substance of the left testis.

There was a little blood extravasated in patches into the tissue of the pia mater at various parts, more especially about the upper surface of the cerebellum. The vermiform process of the cerebellum was bruised and ecchymosed, and the left lobe at its under surface and its outer edge was also contused. The right lobe was also a little contused, but here the bruising was exceedingly superficial.

Compound Fracture with Depression—Aphasia (?)—Venesection on third day—Death from Contusion of the Brain.

July 5.—11.30 p.m.: A woman admitted in collapse, with compound and depressed fracture of right parietal bone. No operation performed.

July 6.—Partially rallied, but still feeble; restless, and partially conscious. Does not speak, and does not use her right limbs so much as the left.

„ 7.—Incomplete reaction; restless; does not speak, though she appears to be conscious.

„ 8.—Reaction complete; surface frequently hot; pulse 86; venesection; increased rate of pulse.

„ 9.—Much more feeble; pulse 120; surface cool; death near midnight, having lived ninety-six hours.

Autopsy.—Contusion of upper surface of right hemisphere and under surface of middle lobe of left; laceration of dura mater at a little distance from the depressed fracture.

Mary F., aged twenty-two, a single woman, was found in a state of insensibility in the hold of a ship. It was not known how long she had been there. She had probably attempted to cross the vessel in the dark, and whilst partially intoxicated. When found she was quite insensible, and almost cold.

She was carried at once to the hospital (during the night of July 5), and I was sent for to see her shortly after her admission. I found her in a state of collapse; the extremities cold; the face pale; the nose cold; lips rather dusky. She was insensible, but moaned occasionally, and moved her limbs. The respiration was feeble, and there was not the slightest stertor. There was a considerable wound on the right side of the vertex, exposing part of a large depressed fracture. The fragment depressed was two inches long by an inch square, and at no part was it depressed quite to a depth of the thickness of the bone. As there was no evidence of compression, and as the depression was diffused over a considerable area, and not great at any one part, I determined not to trephine. Warmth was ordered to be applied to her feet, etc.

Wednesday, July 6, 1864.—4 p.m.: Hands cool; face pale; pupils of moderate size; lips rather dusky. She appears unwilling to use her right arm, but it is not absolutely powerless. She has been very restless, and several times has got half out of bed. She did not, however, stand, and the nurse's impression is that she found she could not stand. She can draw up her right leg, but does not do so readily. There has been no sickness. At present she is lying quite quietly in a state of partial consciousness. She has never spoken.

Thursday, July 7.—Is better. The nurse says she has several times tried to make her understand what she wanted, but has never spoken. Her pulse is still feeble. She has decidedly less power in the right limbs than in those of the other side, and her face is a little drawn to the left. The right portio dura is not paralysed, but seems much more feeble than the left.

Friday, July 8.—To-day the reaction is complete. Her face and ears are flushed and hot; hands hot and dry; pulse sharp and full, but not hard—about 86. Several doses of opening medicine have been given without result. She is a little restless, and frequently moans. She looks in one's face when questioned, as if she understood; but she will not try to speak. I directed her to be bled from the arm. About twelve ounces were taken from the right arm in the recumbent position. The chief effect was to increase the frequency of the pulse, and render it more feeble; it rose to 114. She was less flushed. Almost immediately after the bleeding her bowels acted very freely.

July 9.—10 a.m.: Her aspect is better—that is, she looks more conscious, and is less flushed; but her nose and cheeks are quite cool; the hands are warm, not hot; the lower extremities are hot, but rapidly cool when exposed; pulse 120, feeble.

From the time of the last note she became more and more feeble. Her face cooled, and the hands became cold. The lips were livid, and the respiration very feebly performed. She died in the night of July 9, near midnight.

At the autopsy we found a depressed fracture of the right parietal bone. The fragment was large, and very firmly impacted. The dura mater was not torn on this side, but was stretched on the edges of the depressed portion; on the other side, almost close to the falx, was a large crescentic rent in it. There was a considerable blood-clot between the bone and the dura mater of the left side, near to the laceration. The under surface of the left hemisphere was contused, lacerated, and ecchymosed. The chief contusion was of the under surface of the middle lobe, at its anterior part. The right hemisphere on its upper surface over the anterior two-thirds—that is, at the part corresponding with the depression—was greatly contused and softened. When cut, its cortical layer was found broken down into a soft brownish pulp. A few small ecchymotic spots were found in the adjacent medullary substance. The lungs were congested posteriorly.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

DEATH UNDER CHLOROFORM.

By HUGH RICHARD KER.

(*Concluded from page* 387.)

We have now come to the third division of the subject, viz.:—"What are the causes of death under chloroform?" These are generally admitted to be—1. Coma; 2. Asphyxia, 3. Syncope.

1. Death from coma, I imagine, seldom occurs. I cannot find one single instance of it anywhere recorded. It is said to occur chiefly in individuals who are epileptic, or whose blood is loaded with urea. The manifest moral to be deduced from this is: "Don't give chloroform to epileptics, or those suffering from uræmia."

2. Death from asphyxia is much more common, and takes place in one of two ways—(1.) By the administrator not allowing the patient a sufficient supply of air. No doubt this is due either to his being neglectful of the fact that a certain proportion of atmospheric air is necessary to sustain life; or else, perchance, the operation is an interesting one, and the chloroformist is anxious to get a closer view of its progress. (2.) Asphyxia, secondly, may come on through spasmodic closure of the upper opening of the larynx. I firmly believe that if a strict watch be kept upon the patient, and the symptoms of asphyxia be promptly treated—at all events, in most cases,—a fatal result would be avoided. I myself have seen patients partially asphyxiated under chloroform, but have never experienced any difficulty in averting the danger.

3. Probably, the most common cause of death under chloroform is syncope. That the fatty and flabby hearts which, Dr. Taylor sarcastically remarks, have become so common since the introduction of chloroform, can entirely account for this, I cannot for one moment think possible. That, on the other hand, this "refuge for the destitute" is applicable in some cases, I will not deny; but I believe those instances to be "few and far between." It is under this heading that, I maintain, a large number of cases of death are ascribed to chloroform, which are, in reality, due to other causes. And here, I think, it will not be inopportune to briefly review a case of death which occurred in my own practice, and which is fully reported in the *Lancet* of August 7.

Matilda W., aged twenty-one, was attacked with pleuro-pneumonia about the third week in May of this present year. About ten days after my first visit (which was on the 26th), tenderness over the left ovary was noticed. From that time until July 7 the chest symptoms improved, whilst the abdominal mischief became more distinct and better defined. It was found, however, impossible, without the aid of an anæsthetic, to make a satisfactory investigation of the tumour, which at this time was distinctly felt through the walls of the abdomen.

July 7.—With a view to this investigation, and afterwards, if thought advisable, of passing an aspirator-needle into the tumour, Mr. Pearse administered chloroform. We found the uterus pushed to the right side, and through the walls of the vagina detected fluctuation. On external examination, the tumour was found occupying the whole of the left iliac fossa, and extending upwards almost to a level with the umbilicus. It was contained within well-defined limits, and the intestines were apparently pushed entirely over to the right side; for there was no resonance on percussion over the tumour, but well-marked resonance over the abdomen to the right of the median line.

Nothing untoward had occurred up to this time, except rather more struggling than usual at the commencement of inhalation. But now, just as I was about to plunge the needle into the abscess, violent vomiting came on. I desisted until the vomiting had ceased, then, finding consciousness partially restored, Mr. Pearse proceeded to get some more chloroform. At this moment, and just as Mr. Pearse was about again to place the inhaler over her mouth, a gurgling noise was distinctly heard by both of us. The patient became ghastly

pale, gasped, and died. Artificial respiration was resorted to, but all to no purpose. About half an ounce of chloroform was used, but nothing like that quantity could have been inhaled, as a great deal of it must have evaporated during the period of sickness, when the inhaler was removed. The dose, therefore, was a very small one.

On July 10, by order of the coroner, a post-mortem was performed. Pleuritic adhesions were found to exist on both sides, principally over the bases of each lung, and also over the middle lobe of the right. There was a small abscess situated over the middle lobe, containing, I should think, from one to two ounces of pus. There appeared to be partial consolidation of each base. Numerous bubbles of air, however, escaped on pressure. No part of the lung was put into water. The heart was entirely empty, and perfectly healthy. On opening the abdomen, a large abscess was discovered. To all appearance it occupied the whole of the left iliac fossa, and extended upwards nearly to the umbilicus. Near this part the wall of the abscess appeared to be continuous with the wall of the abdomen. The intestines occupied the right side of the median line. About one inch and a half to two inches below the umbilicus, the sac had ruptured, and a quantity of pus escaped into the cavity. The brain was healthy, but, I believe, said to be anæmic. The quantity of pus was not ascertained, nor was any endeavour made to trace the origin of the abscess. My impression at the time was that there must have been very nearly three pints of pus. There appeared to be no inflammatory lymph over the intestines, which looked healthy.

The death was said to be from asphyxia. Now, in controverting this opinion—which I do most decidedly,—I will simply quote a few sentences from a careful and elaborate article on Asphyxia by Dr. Carpenter—published in the "Library of Medicine," vol. iii., page 221—and compare them with the report of the post-mortem given at the inquest. Two points only of comparison will be sufficient for my purpose:—

From Dr. Carpenter's Essay.	From Post-mortem Report.
1. *Heart and Blood.*—"The accumulation of blood in the right side of the heart and vessels connected with it—namely, the systemic veins and pulmonary artery,—and the comparatively empty state of the left cavities, are the appearances *most characteristic* of asphyxia."	1. *Heart.*—"The cavities of the heart were entirely empty, and perfectly healthy."
2. *Brain.*—"The veins and sinuses of the head of course partake of the general venous congestion. And, in well-marked cases, an unusual number of red points is seen on slicing the brain."	2. *Brain.*—"Normal." (I believe it was added that the brain was anæmic.)

In both these organs, therefore—heart and brain,—the condition found at the post-mortem was the very reverse of that described by Dr. Carpenter as indicating asphyxia. In fact, it appears to me there cannot be a question as to the death being from syncope, and *not* from asphyxia. The only doubt I can imagine would be as to whether that fatal syncope was caused, directly or indirectly, by the chloroform inhaled. Now, it can hardly, I think, be argued that chloroform could in this instance have been the direct cause of the syncope. Had that been the case, the death would surely have taken place during its inhalation, *not* after the chloroform had been withheld for some minutes, and consciousness partially restored. That it may have indirectly hastened death in this instance, by depressing the heart's action, and so rendering syncope more probable on the rupture of a large cyst, I will not deny. But an anæsthetic was essential to make a complete exploration. Hence, even were there no other objection to local anæsthesia, this would be quite sufficient in itself to preclude the idea of it. An operation was the patient's only chance. On the one hand, if left as she was, death was certain. On the other, had our diagnosis proved correct, there was a fair chance of recovery. If, then, through timidity or base fear of public censure, we had hesitated between these alternatives, I consider we should have shown ourselves unworthy of the noble profession to which we have the honour to belong.

But we have deaths recorded from a much simpler cause—when no anæsthetic was administered—than that of rupture of an abdominal abscess: for instance, the little child already alluded to, who died from syncope immediately after the incising of an abscess in the neck; or the following case, from Mr. Travers' book on "Constitutional Irritation":—"A brewer's servant, a man of middle age and of robust frame, suffered much agony for several days from a thecal abscess. A few seconds after the matter was discharged by a deep incision, he raised himself by a convulsive effort from his bed, and immediately expired."

In both these cases, which were neither of them under any anæsthetic, you have much slighter cause for death than in my case. Indeed, it seems to me that in the simple fact of a large abscess suddenly discharging itself into the abdominal cavity, we have quite sufficient to account for the fatal syncope, without laying any blame to the chloroform. This is more especially the case if it is borne in mind that the patient was considerably reduced by a long illness and protracted suffering. I feel confident that if the deaths from syncope under chloroform were more carefully sifted, many of them would be found to closely resemble those deaths which, before the introduction of anæsthetics, were looked upon simply as inevitable accidents. There is little doubt, however, that many accidents do occur from want of proper precaution, as, viz.:—Attention not being paid to having the stomach empty; through chloroform being administered to the patient in the sitting or semi-recumbent position, instead of the horizontal; through the stomach having been kept too long without a meal.

This latter cause was nearly proving fatal to myself about twelve months ago. It happened in this way. I had made an appointment with Mr. Cave, of Bennett's-hill, to have several old stumps removed, and as it was a rather formidable operation, he wished me to have chloroform. Bearing this in mind, I was careful not to take any food after my breakfast. This I calculated would leave about four hours between that meal and the inhaling of the chloroform; but, unfortunately, that interval was considerably lengthened. I had also intended taking a glass of sherry shortly before the operation, but unhappily forgot to do so. Dr. Malins administered the chloroform; and whilst conscious, he tells me, I breathed well, but directly I became unconscious the reverse was the case, and my appearance did not inspire the operators with confidence. From the time that partial consciousness supervened it was long before I entirely rallied. During the whole of that period my sensations were anything but pleasant: I felt as if continually fainting, and could by no means rouse myself.

Now, supposing death had occurred, it would certainly have been attributed to chloroform; and, no doubt, under the peculiar circumstances, in a measure correctly so. But even here I most certainly think that chloroform was not in itself to blame. It is the office of that anæsthetic to produce a condition closely resembling death; but, had it exceeded its office in my case, it would have been entirely my own fault for not having been careful enough to take the *proper precautions*.

Let me now for one moment turn to the morbid appearances of animals purposely destroyed by the inhalation of chloroform. Sir James Simpson, in a pamphlet entitled "Remarks on the Alleged Fatal Cases of Chloroform Inhalation," published, I believe, in 1848, thus alludes to this subject:—"About two months ago I witnessed a series of experiments, made by a committee of the Edinburgh Medico-Chirurgical Society, on several animals intentionally poisoned by the inhalation of chloroform. In every case firm coagula of blood were found in the heart. In some the lungs were congested, in others quite healthy. In none did we find the brain congested." In an experiment I also made to satisfy myself as to the condition of the lungs and heart, I found the lungs healthy but anæmic. The right side of the heart contained a small clot; the left side was full of blood, but not coagulated. But in the majority of cases in the human subject the morbid appearances are the *very reverse of these*. Although these experiments can hardly be taken as proof positive that every case of death from chloroform would manifest the same post-mortem appearances, yet I take it as quite fair to assume that in a large proportion of deaths the morbid appearances would be very similar; and if this be so, then chloroform can hardly be said to be the *cause* in a large number of recorded deaths under that anæsthetic.

I should have been glad to have added a few comments on cases in which it appears that the administration of chloroform is attended with risk, but as I find this paper has already

reached the limits to which I can reasonably expect a patient hearing, I will, in conclusion, only ask indulgence for a few moments longer, whilst I endeavour to sum up and give point to the foregoing observations.

I have endeavoured to show—1. That, through the rash and hasty statements of gentlemen holding a high position in the profession, the public, and members also of the medical profession, have been led to believe that chloroform is fatal in a far greater number of cases than it really is; 2. That ether, though in some cases likely to prove safer and better than chloroform, is not to be compared with it as a general anæsthetic; and 3. That a large number of deaths which are ascribed to chloroform are really emotional, and such as would have probably occurred had no anæsthetic been given.

I maintain that the immediate risk in the administration of chloroform is but very small, and is more than counterbalanced by immunity from other dangers from operations which used formerly to occur; for, take the deaths from any other poisonous drug in the Pharmacopœia, and it will be found that in almost every case the figures assume enormous proportions as compared with those recorded as due to chloroform. For instance, it is calculated from the registrars' returns that no less than from 300 to 400 deaths are caused every year in Great Britain by opium. What I think is most needed—until we have found an anæsthetic superior to chloroform—is that more care should be taken in adhering strictly to the precautions which experience has taught us are necessary to its safe administration. I would also most strongly urge that each surgeon should carefully note the special cases where chloroform appears to give rise to dangerous symptoms. This I believe would, to a great extent, clear the ground of many doubts which still remain with regard to the danger of anæsthetics. I, for one, would gladly welcome an anæsthetic the administration of which was attended with *no* danger. But is this possible? In the meantime, are we to abandon chloroform because in every few thousand cases a death takes place? The collier might, with far more reason, refuse to go down the pit because every now and then some unfortunate miner meets with an untimely death by a fall of coal or an explosion of gas; or a traveller might as well refuse to go to Dublin because the "wild Irishman" occasionally comes to grief when travelling at the rate of sixty miles an hour.

If these few remarks become instrumental in drawing fresh information from the deep stores of knowledge which so many possess, then my labour in collecting matter for this—I fear most imperfect—paper will be amply rewarded. I will only add, further, Bacon's words—"I esteem it the office of a physician, not only to restore health, but to mitigate pain and suffering."

THE COLONIAL GOVERNMENTS AND THEIR SURGEONS.

By JOHN HUDSON, L.R.C.P. Lond.,
Staff Surgeon, R.N.; late Superintendent of the Emigrant Ship *Earl Dalhousie*.

In the instructions to surgeons superintendent of New Zealand emigrant ships, an elaborate attempt is made to define the duties and divide the responsibilities of the surgeon and the captain respectively. This attempt is suggestive of the difficulty of finding the "right men for the right places," and is well adapted to meet the shortcomings in that direction; for it is to be feared that few candidates for such appointments are perfect in the three cardinal points of character, experience, and education: *e.g.*, young gentlemen fresh from their studies have been appointed as surgeons superintendent; while captains, of equal experience in their own sphere of life, but of different character, education, and social status, must also vary in degree as to their fitness for the responsible command of passenger-ships.

The instructions to the medical officers of the Queensland Government are clear and explicit, investing them with supreme authority and undivided responsibility as regards discipline, good order, and control over the emigrants, and as their "guide, adviser, and protector throughout the voyage." This is as it should be. Similar instructions from the Agent-General of the Government of South Australia have enabled me to maintain good order, and secure the welfare of the people without interference, but, on the contrary, with the cordial support and co-operation of the captain of the ship.

While on this subject it may be useful to notice the accommodation provided for surgeons on board emigrant-ships. On going on board a large ship chartered for carrying emigrants to Otago, New Zealand, in March, 1874, I found she was *flush-decked*, and "built for cargo only," as the ship's husband frankly told me. The surgeon's cabin was formed by cutting off the after part of the captain's cabin in the starboard quarter. The berth was exactly like a coffin in size and shape, and was placed obliquely, or nearly diagonally, and high up, with its foot aft on account of the sloping quarter. A small round scuttle admitted light, abreast of the head. A mere pretence for a washing-stand was fixed in the after corner, at such an elevation that, in washing the face, the head must have come in contact with the beam above. There was barely room to stand on the deck within the door. As to the rest of the 'tween decks, for the reception alike of emigrants, officers, and crew, the space was sufficient; but, in the absence of side ports, the general accommodation was rather suggestive of the Catacombs of Rome.

By way of contrast, it is but due to all concerned to state that my cabin in this ship (the *Earl Dalhousie*) is spacious, well aired and lighted, and fitted in a proper manner.

It may be doubted whether such a ship as that referred to was suitable for a surgeon superintendent and some 350 emigrants and crew. No wonder that, under such circumstances, the Government in question should try to foist upon the captain's shoulders a portion of the office and functions proper to the superintendent alone.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASE OF ENCEPHALOID CANCER OF BRONCHIAL GLANDS AND LEFT LUNG—SMALL CANCEROUS MASSES IN RIGHT LUNG, HEART, AND LIVER—GALL-STONES.

(Under the care of Dr. BATHURST WOODMAN.)
[Reported by Mr. E. BERDOE.]

ELIZABETH B., married, but childless, was admitted to Dr. Down's ward on October 13, 1875. Her age was probably forty-five years. She was very thin, had dark hair, dark skin, bluish-gray irides, and blue sclerotics. She said that her father died of some chest complaint. No other particulars as to her family history could be gleaned, but she believed none of her relations had ever suffered from tumours, or undergone operations for the removal of any growths. When very young she had had rheumatic fever, typhoid fever, and whooping-cough. The catamenia were always regular until they ceased, six months before admission. Was never pregnant. At one time she had a rash on the skin, "looking like bladders of water." Her throat was sore at the same time, and she lost "quantities of hair." There were some scars on the front of the right elbow, which, with the history given above, suggested that she had suffered from syphilis. She also said that just before Christmas, 1874, she was laid up with bronchitis. On recovering from this, she began to lose flesh, her cough again increased, and she had burning pains in the throat. She complained on admission of severe pain in the left side and down the left arm, which she likened to "stabbing with a knife." (These were her own words, without any prompting.) About fourteen days ago she had severe epigastric pains, which were relieved by vomiting. She does not vomit now. The bowels are open. Her urine was somewhat scanty, and contained lithates. Her temperature was seldom above normal, and then not over 101° Fahr. On some days it was sub-normal, though only slightly so; her pulse varied from 70 to 110 or 120 per minute; her respirations averaged 25 to 30.

On examining her chest, the left sub-clavicular region was seen to expand badly. There was dulness on percussion on the left side from the clavicle as low as the upper margin of the fifth rib in front, and a trifle lower behind. Over this dull space the breath-sounds were so feeble as to be almost inaudible. There was hardly any tactile vocal fremitus, and vocal resonance was diminished almost to nothing. What breathing there was, was bronchial and jerking in character.

Over the rest of this lung, and all over the right side, there was slight hyper-resonance (? emphysema) and exaggerated bronchial breathing. Heart-sounds apparently normal. No moist sounds heard on auscultation. Her sputa were, however, nummular, and slightly flocculent.

On October 20 she had slight rigors, without much rise of temperature. From this time till December 11, when she was discharged at her own request, there was little change in the chest symptoms, except that she once or twice expectorated a little blood, which had no very remarkable colour. Once and again moist râles were heard in different parts of the lungs, and there were slight signs of pleurisy on both sides. She had several attacks of transient loss of consciousness, with loss of speech, lasting only a few hours, without any obvious paralysis. The dull portion of left lung remained dull; it was somewhat tender on percussion.

On November 15 it is noted that "on listening to the left apex there is now a peculiar noise, like grinding the teeth or 'gur-ur-ur-ur,' best heard with inspiration."

On December 11 it is also noted that "the heart's vibrations are very plainly conducted by the dull lung at left apex, reminding one of the thrill of a marine steam-engine." About this date a hard lump, "suggesting bony outgrowth," was felt about two inches to the left of the vertebra prominens, immediately below the upper border of the trapezius. At this date, by rest in bed, tonics, and medicines to relieve pain, her general condition had improved, and she had even gained a little in weight.

After her discharge from the hospital, nothing was seen of her for some weeks.

At the end of February, 1876, she presented herself as an out-patient, and there was now a mass of indurated glands above the left clavicle, nearly filling the posterior triangle of the neck. She had become much emaciated and so weak that Dr. Woodman advised her to come into the hospital again. She was therefore readmitted on March 10, 1876.

Next day it is noted: "There is great weakness; tenderness on pressure on the left side, especially near the clavicle. The mass of glands named above is about the size of a China orange. The glands are not separate, but seem bound together by hard tissue; they evidently extend deeply [this was verified post-mortem]. Percussion is now dull all down the left side, from the clavicle to the base of the lung. Tactile vocal fremitus is absent all down the left side, and in front there are no breath-sounds except very feeble bronchial breathing. On the right side there is hyper-resonance and exaggerated breathing. Behind, the physical signs are almost the same as in front, excepting that over the middle of the left lung, corresponding to the large bronchi, there is a little more resonance than in front. At the left base the vocal resonance is increased. Tactile vocal fremitus is also felt there, and there are a few moist râles. The heart's sounds are not only feeble, but there is intermission every fifth or sixth beat." No enlargement of liver or spleen could be made out. The uterus appeared small. The os uteri could be recognised with difficulty. There were no physical signs of cancerous disease anywhere but in the lung. The sputa consisted almost entirely of well-formed pus-globules, exhibiting the usual nuclei when treated with acetic acid. There were no cancer-cells, nor any other structures, excepting a few fragments of elastic tissue from the lung. The sputa had been examined about three months before, and found to present the ordinary characters of broncho-pneumonic sputa. There was never any purple or plum-juice expectoration, and no "cancer-cells" were ever seen under the microscope. The patient's weakness increased daily, and she died ten days after admission, without much pain, apparently from asthenia.

The post-mortem examination was made next day by Dr. Sutton, who reports as follows:—The mass of glands was found to consist entirely of encephaloid cancer. This mass extended to the apex of the left lung. The pleura covering this lung was very firm, adherent, and thickened throughout, especially over the upper lobe, and from the apex there was a mass of this cancer extending through the upper one-third or one-fourth of the left lung. The bronchial glands lying round the main bronchus were enlarged by cancer, and this had extended through the wall of the bronchus, so that cancerous substance was seen lying in and on the mucous membrane of the bronchus; and just below the bifurcation of the bronchus the cancer had almost occluded the air-passages. There was, however, room for a medium-sized elastic catheter to pass. This invasion was in a large bronchus coming off immediately from the main one. From this point to the base of the lung the lung-substance was much softened, excavated, and solidified. There were some cavities, without any distinct lining membrane, bounded by ragged lung-tissue, and numerous other cavities containing puriform matter. All the cavities contained pus of a greenish colour. The remaining portion of the lung was solid, of a bluish-grey colour, dotted with pus-collections. The right pleura was coated with recent lymph, and scattered in the pleura were several puckered grey patches, beneath which the lung-substance was consolidated, seemingly pigmented,—in other parts grey cancerous materials. But there were other small solid masses in this lung which were easier felt than seen; their colour was very much that of the surrounding lung, and they were not granular. In the heart, a cancerous nodule the size of a common marble was lying on a branch of the coronary artery, at the base; and in the same situation there were two or three still smaller ones. In the liver there was one small mass, which looked suspiciously like cancer. The gall-bladder was full of gall-stones. One kidney was faintly granular. The uterus was atrophied, and only two inches in length. The other organs appeared healthy."

In commenting on this case, Dr. Woodman observed that the diagnosis received but little aid from the previous history of the patient or of her family. Of the latter we had, indeed, next to no history. We had as points in the diagnosis the patient's age, complexion, and progressive emaciation; the stabbing character of the pain; the peculiar physical signs, corresponding neither to pneumonic consolidation, tubercular deposit, nor pleuritic effusion. Just at the last, indeed, the symptoms were not so unlike empyema; but the heart was never displaced, and there was an absence of the hectic fever we might have expected in such a case. Yet a recent case at the North-Eastern Hospital for Children shows that we may have a pleura full of pus, and no elevation of temperature. In the present case, the dulness never overlapped the median line. There was never any great peculiarity in the sputa, although the microscope latterly showed that the lung was breaking down—a revelation confirmed by the necropsy. Except the cases published by Dr. Risdon Bennett and Dr. Cockle, there are few records of intra-thoracic cancer in English medical literature; and therefore the publication of the present case rather in detail may perhaps be excused.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.

A CASE OF SUB-ACUTE GLAUCOMA—IRIDECTOMY—RESULT GOOD.

(Under the care of Mr. SPENCER WATSON, F.R.C.S.E.)

[For notes of the following case we are indebted to Mr. Symons, Clinical Assistant.]

John W., aged forty-five, a porter, formerly a police-constable, of healthy aspect, with fair hair and blue irides, applied at the hospital on December 17, 1875, with glaucoma of the left eye.

History.—He has never had any serious illness, and is of temperate habits. He suffers, however, from bronchitis in the winter months. Nine years ago he first noticed a dimness in the left eye, and has ever since had occasional recurrences of dimness of sight, with the appearance of coloured haloes round the flame of any artificial light. Three weeks ago he again had an attack of dimness of sight, and during several days before he applied at the hospital had experienced severe pain in the eyeball and temple, so that he had been unable to sleep for several nights.

Present Condition.—December 17.—Left eye: Tension increased to the third degree. Vision: Makes out words of No. 20 of Jaeger's test-types with difficulty. On ophthalmoscopic examination, the optic disc is seen to be deeply cupped.

Operation.—Iridectomy was at once performed upwards and a little inwards. A very small piece of iris was removed, not larger than one-seventh of its circumference. A sixth of a grain of morphia was given immediately, and to be repeated at bed-time if necessary. Ice-balls were applied constantly, until the smarting of the wound was relieved.

Progress of the Case.—December 18.—Tension still above the normal state. Vision improved so far that he can read No. 10 of Jaeger's test-types. Pain quite gone.

January 7.—Tension still in excess; has some pain in the eyeball; vision improved.

Results.—March 26.—The tension is now quite normal. No pain remains, and sight is so good that he reads No. 1 (the smallest) of Jaeger's test-types. Since the operation there has been a slow but steady improvement in the condition of the eye and in the sight. During the second week after the operation the pain seemed much relieved by the use of bromide of potassium in ten-grain doses, and the application of morphia in the form of embrocation to the forehead and temple.

Remarks.—The ultimate result of this case is highly satisfactory, and affords a typical instance of the advantages derivable from the operation of iridectomy. The relief would probably have been more speedy if a larger portion of the iris had been removed at the time of the operation, but there is always more or less disfigurement under these circumstances; and the larger the portion of iris removed, the greater the optical defects of the eye subsequently, and the greater the risk of intra-ocular hæmorrhage. A sudden relief of tension seems often to facilitate or even to excite a rupture of the choroidal vessels, and the consequence is separation or disruption of the retina, and consequent loss of sight. A slower evacuation of the contents of the overloaded capillaries is therefore less dangerous, though the relief of tension and pain may not be so immediate and complete. The use of opiates and bromide of potassium has been very frequently successful in allaying the pain of glaucoma in Mr. Watson's practice.

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Medical Times and Gazette.

SATURDAY, APRIL 15, 1876.

THE EXCRETION OF PHOSPHORIC ACID.

The study of the relations between the amount of phosphoric acid and of nitrogen excreted in the urine in a given time has lately occupied the attention of Herr Zuelzer, of Berlin, and has, if we may judge from the report of a lecture delivered on January 12, 1876, before the Berlin Medical Society, already afforded some noteworthy results. Fixing the percentage value of the acid and nitrogen to one another, he terms the numbers obtained for the former the "relative value" of the phosphoric acid. Thus, if a dog be fed with meat only, it excretes in twenty-four hours twelve to fourteen parts of phosphoric acid to 100 parts of nitrogen. If other foods are given—*e.g.*, potatoes, bread, and especially brain—the "relative value" increases, as it also does if the animal is allowed to starve. In healthy men the relative value of phosphoric acid varies within narrow limits, and the variation chiefly occurs after meals, being very slight in those periods in which their influence is little felt. In the forenoon the relative value is less than at night. Age affects it materially; infancy gives the greatest, and the middle age of strong, healthy people the smallest relative value. During febrile diseases the relation of phosphoric acid to nitrogen undergoes a characteristic alteration. In the stage of high fever the excretion of nitrogen is much increased, whereas the relative amount of phosphoric acid excreted is small. During defervescence large quantities of both bodies are excreted; during convalescence the relative value of the acid, especially in the early period, preponderates.

In cholera, things are reversed. The first urine voided after the attack (*Anfall*) is rich in phosphates, and as recovery progresses they gradually diminish in quantity. Herr Zuelzer's experiments, which will before long be published in detail, further show that the relative value of phosphoric acid appears to be increased after the administration of morphia, chloral, chloroform, and other narcotics in hypnotic doses, and diminished after the use of alcohol, strychnine, etc. Cold baths also diminish it; but warm baths, severe bodily exercise, and an insufficient supply of oxygen diminish it.

The general conclusions at which Herr Zuelzer has as yet arrived are the following:—

1. If the external conditions of the organism remain unchanged, the relative value of the phosphoric acid to the nitrogen also varies very little, provided the observations are continued long enough for a sufficient number of repetitions of the physiological processes.

2. This "relative value" alters as soon as different influences begin to act on the organism, being less in conditions of excitement, and greater in those of depression.

Now, since it is especially nervous influences which cause the most extreme variations in the relative value of phosphoric acid, it seems not illogical to conclude that these variations chiefly represent the tissue-changes which occur in the nervous system. In favour of this view there is the fact which Waske's researches have brought out: that the composition of the bones is not affected by a diet which is deficient in phosphoric acid and lime; and Förster's discovery that under such circumstances the brain is almost the only organ or tissue which suffers; and, lastly, Herr Zuelzer has proved that the relative value of the phosphoric acid in the urine is considerably increased after injuries to the brain.

THE EXPLANATION OF PULSATING LIVER.

If physiology is necessary to a proper understanding of many clinical phenomena, such phenomena in their turn often illustrate and confirm physiological theories. If instances might be quoted of physiologists who have propounded theories without troubling themselves to test them by that kind of experiment which disease, uninvited, occasionally works out for us; physicians, on the other hand, sometimes give explanations of clinical symptoms without taking the precaution to inquire to what extent our knowledge of physiology justifies the explanations. One consequence of this is that valuable physiological theories are lost sight of, because it is not made clear that they are supported by well-known facts, or because they do not seem to have any practical bearing; while many crude doctrines get thrown upon the surface of medical opinion until some one takes the trouble to examine and gauge them by the light of known scientific facts.

No one, however, would be bold enough to assert that every sound theory or well-recorded observation is at once recognised in its full importance, or receives the position it deserves,

even after the theory has been tested by facts, and the facts illumined by the aptness of the theory.

More than thirty years ago some ingenious views were published upon the circulation of the blood through the liver, and the author supported them by reference to clinical observations. During the last ten years, experiments and fresh clinical facts have been reported, indirectly, though not avowedly, in support of the same views. Standard works on physiology, however, make no allusion to them, nor do our text-books on medicine take any notice of the corroborative facts.

In June, 1842, Mr. A. Shaw, at that time Assistant-Surgeon to the Middlesex Hospital, read a paper before the British Association, which was subsequently published in the *Medical Gazette* for July of the same year.(a) In that paper he advanced the opinion that some force auxiliary to that *vis a tergo* which belongs to the veins generally is necessary to promote the return of blood from the liver. The vena portæ, although nothing more than the common trunk of a certain set of valveless veins, and presenting the same structure as veins in general, subdivides like an artery, and redistributes its blood over the whole substance of the liver before transmitting it to the heart. It has, in fact, to perform the duties of an artery without possessing, like the arteries, an elasticity to aid it in propelling the blood; while the fluid it contains does not receive a direct impulse from the heart, as does the blood in an artery.

It admits of proof, it is urged, that this auxiliary force is to be found in the actions of respiration. When drawing a deep breath, the area of the space in which the heart is situated is enlarged. The pericardium is attached in such a manner above to the vessels at the base of the heart, and below to the convex surface of the diaphragm, that its parietes are stretched and held apart by each descent of that great muscle of inspiration. As a consequence of this increase in size of the cavity of the pericardium, there is a tendency for a vacuum to form in it; hence the blood accumulated in the venous trunks close to the heart rushes to the right auricle with accelerated force. On the other hand, as soon as expiration follows, the blood in these venous trunks is either simply retarded, or regurgitates according to the force of the expiration.

The influence exercised by the actions of breathing in aiding the flow of blood to the heart had previously been studied only in reference to its effects upon the veins of the neck; the nature of the influence was proved experimentally by Sir David Barry. The special conditions which favour its action on the portal circulation are referred to by Mr. Shaw under three headings. *First*, he points out that the trunks of the hepatic veins open into the inferior cava just at the spot where that vessel pierces the central tendon of the diaphragm. It may even be said that they themselves pierce the diaphragm, as it is owing to their junction with the cava, while passing through the tendon, that the opening has an irregularly triangular shape.

Secondly, the venæ cavæ hepaticæ are formed in such a way that their parietes cannot collapse when subjected to atmospheric pressure—*i.e.*, in this case, to the aspiratory action of the mediastinum. The hepatic veins are lodged in canals, which are cut, as it were, out of the firm substance of the liver. They, in fact, adhere directly to the liver-tissue, so as to approach in character to rigid tubes, and their sides can only be approximated to the extent to which the natural structure of the gland will permit the canals lodging them to meet. This rigid and open state of the hepatic veins is best seen in that part of the liver where the trunks are passing out of the gland to join the inferior cava.

Thirdly, the changes to which the orifices of the hepatic veins and the course of the cava are subject in the different relative positions of the diaphragm and liver during respiration are advantageous. The caval orifice of the diaphragm is dilated in inspiration by the state of tension into which the tendon of that muscle is thrown during the contraction of its muscular fibres. During inspiration, owing to the descent of the diaphragm, and the consequent flattening of the liver, the cava itself is straightened out and made tense; while the course of the hepatic veins is rendered more direct, and the orifices of these vessels are made to face the opening in the tendon of the diaphragm. Conversely, during expiration, a portion of the tendon overlaps the orifices of the hepatic veins, so as to partially close them by a kind of valvular septum. The trunks of the veins between the liver and the heart are shortened, and their coats thrown into folds, and the opening in the diaphragm is diminished during the relaxed and relaxing states of the muscular fibres. Thus, at the very times when the chest-cavity is narrowing, and the blood has a tendency to regurgitate into the hepatic veins, this tendency is counteracted by the diminished size of the calibres of the venous trunks, and by the partial closure of their orifices.

In this way, and because inspiration is a more powerful act than expiration, it follows that the circulation of the liver gains by the influence of the atmospheric pressure. The power of suction in force during inspiration relieves the system of portal vessels of a duty which would otherwise be disproportioned to their powers.

Such were the views concerning the circulation of the liver expounded by Mr. Shaw thirty-four years ago, and which, at the time, he believed to be quite novel. But he had been anticipated by M. Berard, Professor of Physiology in the School of Medicine in Paris, who had published, several years before, a memoir on the same subject in the *Archives Générales de Médecine;* while Dr. Carson also, in the third edition of his treatise on the Circulation of the Blood, had previously given a similar description.

Although the views in question cannot be said to have received from physiologists all the attention they deserve, they are gradually becoming better known. They offer a ready explanation of pulsation of the liver, which has been observed in some cases of cardiac disease in its more advanced stages. Since 1865, when Seidel and Geigel described cases of pulsating inferior vena cava as a result of tricuspid incompetency, there have been published every now and then the notes of cases of so-called *pulsating liver*. Quite recently, in the columns of a contemporary,(b) reference was made to two cases of the sort under Dr. Ramskill, in the London Hospital; and in the *Guy's Hospital Reports* for 1875 there is a paper by Dr. Frederic Taylor on the subject, based upon the observation of five such cases. No mention is made of the peculiarities of the hepatic veins, described by Mr. Shaw in explanation of this pulsation; but it would appear that the relation of these veins to the liver-tissue, whereby they cease to be flaccid tubes, and are converted into patent sinuses, is a condition specially favourable for communicating to the liver, as a whole, any pulsation caused by regurgitation in the terminal part of the vena cava and hepatic trunks. Always adherent to the glandular structure forming the walls of hepatic canals, the veins have no room to dilate, except by compressing the surrounding liver-tissue. There is no loose cellular tissue interposed between the proper coats of the veins and the walls of the canals, to ward off this effect; still less is there a bed of such cellular tissue connecting the veins with other vessels and filling up the spaces between them, as is the case with the portal veins. Thus, when regurgitation takes place, the whole structure of the liver receives directly the communicated force, and would be com-

(a) *London Medical Gazette*, July 15, 1842, page 593.

(b) *British Medical Journal*, March 18, page 350.

pressed between the blood in the distended hepatic canals and the fibrous capsule of the liver, were it not for the elasticity of that capsule and of its strong elastic peritoneal covering.

The elasticity of the enclosing capsule of the liver, like that of the spleen, of the kidney, and of the testicle, is of constant use in permitting the temporary enlargement of the organs during their turgescence, or stage of exalted functions, and the subsequent return to a state of rest. Every organ which is liable to rapid increase in size from sudden activity of its functions, is provided with some means for regulating the varying changes in its degree of vascularity. In the case of the brain we have the ventricles, the foramen of Majendie, and the cerebro-spinal fluid. The abdominal organs and the lungs are provided with elastic capsules.

Thus, with coverings capable of distension externally, and with tubes immediately adherent to its structure in every part of the organ within, we have all the conditions necessary for pulsation. The liver, in fact, may be regarded as a huge and complicated artery, which yields and contracts in response to every impulse of the heart.

Two questions are suggested in Dr. Taylor's paper, upon which a few words must be said:—First: Ought pulsation of the liver to be looked upon as evidence of regurgitation through the tricuspid orifice? Not necessarily. Anything which prevents the increase in the mediastinal area, and which, in consequence, limits or annihilates the aspiratory action of the pericardium, will, of course, cause a condition of perpetual distension of the veins near to the right auricle, and probably engorgement of the right auricle as well. The fluid contained in these parts would thus be ready to receive an impulse by mere continuity with the contracting cavities, and without any actual regurgitation taking place through the tricuspid valve. Unless it be shown that the "safety-valve" action of this orifice is long delayed, it is not altogether clear that pulsation is more distinct and forcible when regurgitation does occur.

The other question is as to the precedence of jugular and of hepatic pulsation in cardiac disease. Much more evidence is required before the opinion expressed by Friedreich—that hepatic pulsation is the first to occur—can be accepted. *A priori* reasoning and anatomical conditions are opposed to it; and the fact that jugular pulsation is frequently seen and well known, while hepatic pulsation is scarcely mentioned and seldom recognised, suggests the priority of the former. Less force is required to produce pulsation in veins such as the jugular, in which there is nothing to overcome except atmospheric pressure (and even this the jugulars are protected from by the actions of the platysma and sterno-mastoid muscles), than in the liver. Before hepatic pulsation can occur, the impulse must be strong enough to overcome not only atmospheric pressure, but also the resistance of the secreting structure of the liver, the elasticity of the liver capsule, and all those conditions which Mr. Shaw has described as preventing regurgitation during ordinary expiration. Moreover, if the elasticity of the capsule of the liver has been impaired by previous inflammatory thickening, a still further obstacle to pulsation exists. Probably this accounts for the rarity of pulsating liver.

After a careful perusal of Mr. Shaw's views, it can hardly be supposed that there is nothing to impede the reflux of blood from the right auricle into the hepatic veins. Moreover, it is an erroneous though common opinion that the function of the Eustachian valve is one of fœtal life only; and that in the adult the valve is comparatively small. Mr. Shaw might have further supported his views by the argument that this valve is only the result of the oblique manner in which the vena cava and auricle meet, and that it, together with the cava, completes the wall of the auricle during the period of its systole. The auricle would be imperfect without this provision, which is rendered more secure by the reticulated muscular structure of the upper end of the cava. Bernard's experiments are, of course, well known, but they do not disprove, as has been implied, this action of the Eustachian valve and of the root of the cava; nor do they falsify the views which have been expressed respecting the action of the caval aperture of the diaphragm, and of the effects produced during respiration by the changes in the relative position of the liver and diaphragm and hepatic veins. There is a vast difference between the conditions under which blood is propelled from the cut end of a divided hepatic vein during the pulsations of the right auricle, and those under which the liver pulsates in advanced cardiac disease.

No stronger evidence than M. Bernard's experiments can be found in support of the soundness and wisdom of the views, which were original, both of M. Berard and of Mr. Shaw.

OBSTETRIC PRACTICE IN LANCASHIRE.

A VERY painful case has just been made the subject of inquiry before a coroner's jury at Darwen, which plainly shows the necessity that exists of the establishment and enforcement of regulations restricting the practice of midwifery to those who have given satisfactory evidence of their competency as obstetricians.

In Darwen a Mr. George E. Stephens, generally known in the town as "Dr. Stephens," practises as a medical man, and is said to have a considerable practice. Some years since he was an assistant to a medical man in the town; but about four years and a half ago he obtained a Philadelphian diploma, and commenced practice on his own account.

On Thursday, March 23, he was called, about half-past three in the morning, to attend the wife of a brass-finisher, residing in Darwen, who was in labour. Instead of visiting the patient, he sent some pills "to ease her," and promised to call in the morning. About eleven o'clock he visited the poor woman, who shortly afterwards gave birth to a female child. Mr. Stephens then left, after giving the nurse in attendance some pills to be administered to the deceased, who complained of after-pains. Before leaving, the nurse states, he endeavoured to pass a catheter, but without success. Next day he saw the patient again, and expressed an opinion that she was doing "ever so decent." On the Saturday morning the "doctor" again called on his patient, and found her dying, as he stated, from "spasms and inflammation." He again tried to pass the catheter, but failed, and the patient died on the same day about two o'clock. When laying out the body shortly after death, the nurse was astonished to observe that a hand and arm protruded from the vagina. She at once sent for a medical man, and an unqualified assistant was soon in attendance, and removed from the deceased the dead body of a second child. It was the presence of this child in the womb, there is no doubt, that gave rise to the pain of which the deceased complained during life. At the inquest Mr. Stephens was examined, and stated that he knew of the presence of a second child in the womb, but the patient was so exhausted that any attempt to deliver her would have resulted in immediate death. It is remarkable that Mr. Stephens should have said nothing to the husband or friends about the second child; he declares, however, that he told his wife and servant, but thought it better not to mention the true state of the case to the patient or her friends. A post-mortem examination of the body of the deceased woman was made by Dr. Martland, of Blackburn, who found that death resulted from peritonitis, which he believed was produced by the presence of the second child in the uterus.

The jury took a most lenient view of the case, and returned a verdict to the effect that death arose from natural causes, but they were of opinion that there had been some neglect of duty, for which Mr. Stephens should be reprimanded.

It is only fair to Mr. Stephens to state that the confinement was a premature one, and that the second child was reported to have been in an advanced state of decomposition; still, he must think himself very fortunate that he has not to take his trial on a charge of manslaughter. Death may have arisen from natural causes, but had the case occurred in the practice of a qualified medical man we should have expected a coroner's jury to have returned a verdict of manslaughter. The obvious duty of the accoucheur in such a case was to deliver as soon as possible after the presence of a second child had been determined, and it is absurd to say that such a proceeding would necessarily have been followed by instant death. The chances would have been greatly in favour of recovery had the poor woman been delivered, whilst nothing but death could be expected to result from non-delivery.

Mr. Stephens will, no doubt, continue his practice in Darwen as before; but we would ask, Is there no means of fairly warning the public against the risks they run in employing such practitioners? The class of which Mr. Stephens is a specimen is, perhaps, more dangerous than the midwife of the "Sairey Gamp" school. When an uneducated midwife is in a difficulty she generally has the good sense to send for assistance; but with the partially educated it is different. Possessing a little knowledge, they only too often imagine themselves equal to any emergency that arises, with what unhappy results is painfully shown in the above case.

THE COMITIA OF THE ROYAL COLLEGE OF PHYSICIANS.

The chief business at the Comitia of the Royal College of Physicians on Monday, the 10th inst., was the election of a President, a report of which will be found elsewhere in our pages. But the Fellows had other business also of much importance before them. Various communications addressed to the College were received by them; one of which was from the Colonial Office, on a disease prevalent in Fiji, named "Coko," and which was from Dr. C. Mayo, the Government Medical Officer in Fiji; and another was from the President of the Royal College of Surgeons, forwarding a new scheme for the establishment of an English Conjoint Examining Board. This latter will be taken into consideration at a future meeting of the College of Physicians.

The College agreed, for the second time, to repeal the by-law that "No Fellow, Member, or Licentiate of the College shall assume the title of Doctor of Medicine, or use any other name, title, designation, or distinction implying that he is a graduate in medicine of a university, unless he be a graduate in medicine of a university"; and they passed for the first time the following resolution:—"No Fellow, Member, Extra-Licentiate, or Licentiate of the College is authorised or entitled, by virtue of any diploma or licence granted by the College, to assume the title of Doctor of Medicine, or the initial letters M.D., or any other letters indicating that he is a graduate in medicine of a university, unless he has obtained a degree in medicine from a university recognised by the College, and legally entitled to confer such a degree." Pursuing the same subject, they further passed, for the first time, the following regulation:—"That in all official communications between the College and its Fellows, Members, Licentiates, and Extra-Licentiates, the titles employed should be in accordance with the registered qualifications of the person addressed. (*Vide* Schedule A, Medical Act, 21 and 20 Vict., cap. 90.)" To the subject and signification of these regulations we shall probably refer on some future occasion. It was also proposed to enact that "every candidate for the College licence be required to produce a certificate of having acquired proficiency in vaccination signed by a teacher of vaccination appointed or recognised by the Local Government Board"; and that one of the by-laws of the College should be so altered as to enact that "two examiners in chemistry, and two examiners in materia medica and practical pharmacy," shall be appointed, instead of only two examiners in all these subjects. Both of these propositions were agreed to.

Sir George Burrows, before resigning the office of President of the College, addressed the Fellows on the occurrences of the past year. Amongst the topics dealt with, he made, we believe, some remarks on the readiness of Government to ask for and use the services of the Fellows of the College gratuitously. The Secretary of State for the Colonies some time ago addressed to the College a communication on the subject of the valuable reports received from time to time by the Colonial Office on diseases prevalent in the colonies, and asked the College to advise him how they best could be utilised in the interests of the public and of medical science. The College, in reply, recommended the appointment of some learned and skilful physician to whom all such communications should be submitted for examination and report. But this did not meet the views of the Colonial Office, and the College has been informed, in effect, that Government has no intention of paying for the work which they think might be of valuable service to the nation. The President referred, of course, to the present apparent renewal of life of the English Conjoint Examining Board Scheme; and we understand that he expressed the opinion that by the visitations of examinations instituted by the General Medical Council, so much improvement, and such a much greater degree of uniformity, have been effected in the examinations by the various licensing bodies in the three divisions of the kingdom, that the carrying out of the Conjoint Boards Scheme seems much less necessary than it appeared to be when first initiated; and we believe he also expressed a doubt as to the advisability of a Conjoint Board being established in one division only of the kingdom, of which alone there seems at present to be any chance. We may remark that we are entirely in accord with Sir George Burrows here, and that we have insisted on this point many a time and oft.

Sir George Burrows congratulated the Fellows on the financial position of the College, and on its general prosperity and continued growth. When he was elected into it, the order of Fellows numbered only 98, while they are now 294 in number; while the Members and Extra-Licentiates number, we believe, nearly 500, and the Licentiates more than 1000. After some words of wise warning and exhortation, Sir George then finally resigned the office which for five successive years he has filled with such distinguished ability and acceptableness, and all the various and important duties and trusts of which he has discharged with a most happy combination of dignity, efficiency, and courtesy.

THE WEEK.

TOPICS OF THE DAY.

A conference of the local authorities of Birmingham and the surrounding district was held last week at Birmingham (the Mayor, Mr. Chamberlain, presiding), to consider the expediency of forming a Drainage Board for dealing with the sewage of all the districts by uniting them into one. Alderman Avery moved the following resolution:—"That it is desirable that a united drainage district should be formed under the provisions of the Public Health Act of 1875, comprising the following sanitary districts or parts of districts, viz.:—Birmingham, Aston, Balsall-heath, Handsworth, Harborne, Smethwick Urban District Board, and West Bromwich Urban District Board, Solihull, King's Norton, and Aston,—for the purpose of carrying into effect a system

of intercepting the outfall of the sewage, and of disposing of the same for the use of such districts and contributory places." This resolution was carried, and it was further resolved that a joint-committee be formed for the purpose of preparing a memorial to the Local Government Board, and taking such steps as may be necessary to obtain the formation of the proposed united district.

A rather important question was decided in the Consistory Court last week by Dr. Tristram, the Chancellor of the Diocese of London. An application had been made for a faculty or licence to convert the churchyard of St. George's-in-the-East into a flower-garden for the benefit of the public; and the present is likely to be a precedent in other applications in regard to closed burial-grounds. The learned Chancellor, in giving judgment, said that he had made an inspection of the place, and considered all the evidence; the proposed alterations were approved by a large meeting of the parishioners on the understanding that they did not involve the disinterment of any bodies or remains. On principle he entertained no doubt that it was not competent for the Court to grant a faculty authorising a churchyard to be appropriated as a public garden; but the churchyard was under the control and protection of the Court, and it was in its discretion to direct the construction of footpaths in it for the convenience of the parishioners. In the present case all parties concurred in the application. In sanctioning the ground being planted with flowers, the Court would be doing nothing that could be construed as desecrating the place or offering any disrespect to the dead. The distance to the church would be shortened for some of the parishioners; and, being of opinion that the alterations would be of public utility, he should grant the faculty. The granting of this application would appear to open the way for another improvement which we have before advocated——namely, the construction upon some of the metropolitan burial-grounds of mortuaries and the necessary offices, so much wanted in many of the London parishes.

A correspondent of the *Western Morning News*, writing from Bombay on March 31, states that the crews of the squadron lying off there are still confined to their vessels, owing to the prevalence of small-pox ashore, where thirty or forty of the native population had been dying daily from this disease. Despite all the precautions that had been taken, several isolated cases of small-pox had occurred on board the different men-of-war.

An inquest has been held on the body of the seaman who died on board the barque *Emily Flinn*, which lately arrived at Plymouth from Moulmein, having on board a number of the crew suffering from scurvy. It was shown that the men partook freely of bread and the grease that rose to the top of the water in which meat had been boiled, that full quantities of lime-juice had been served out, and that although the men had been put upon short allowance it included one pound of beef or pork instead of one pound and a half. The supply of biscuit was unlimited. The jury returned a verdict of "Death from natural causes, accelerated by a long voyage and the excessive use of salt meat." An inquiry has been opened at Liverpool to investigate the outbreak of scurvy.

For some time past the quality of the aërated waters in India has been much questioned, and recently a quantity was sent from Bombay to London to be analysed by Professor Wanklyn, Vice-President of the Society of Public Analysts. The result of the analysis is given in a report just issued, from which it would appear that out of ten samples forwarded only two were "fairly pure," and as many as five were calculated to induce diarrhœa in those who are in the habit of drinking them constantly.

The *Levant Herald* of the 29th ult. reports that the Sanitary Board continues to receive gloomy advices from Mesopotamia, where the plague epidemic of 1876 threatens to be more destructive than that of 1875. Hillah and Bagdad are still the chief centres of the sickness; in the former town, from March 13 to 19, there occurred forty-five attacks and twenty-five deaths, which gives an average of between seven and eight attacks and four deaths per day. At Bagdad, on the 19th, nine persons were attacked and eight died. Nassyr Pasha, Vali of the new provinces of Bassorah, has decided that arrivals from Bagdad shall be put in quarantine at Kournah, near the confluence of the Euphrates and Tigris. Dr. Millingen, of the Turkish Sanitary Service, has been sent from Syria to the seat of the epidemic in Mesopotamia, in company with two other doctors of the service. At Bagdad a permanent sanitary commission has been instituted, one of the members of which is the physician of the English Consulate-General. The Sanitary Board has decided to reinforce the medical staff at Bagdad by two additional surgeons. Of these, one will leave Constantinople forthwith, and the other is instructed to proceed from Adalia, in Caramania. Dr. Cabiades has been commissioned to proceed from the capital.

The Registrar-General's report on the health of Scotland for the month of March shows that in the eight principal towns during that period the births of 3904 children were registered, of whom 3601 were legitimate and 303 illegitimate. During the same month 2851 deaths were registered: allowing for increase of population, this number is 212 below the average for March during the last ten years. Of the 2851 deaths, 1206 or 42 per cent. were of children under five years of age, distributed as follows:—In Perth, 10 per cent.; in Aberdeen, 27; in Edinburgh, 35; in Paisley, 37; in Greenock, 41; in Glasgow, 46; in Dundee, 49; and in Leith, 54 per cent. The zymotic class of diseases proved fatal to 477 persons, thus constituting 16·7 per cent. of the whole mortality. This rate was greatly exceeded in Leith (25·4 per cent.) from the prevalence and fatality of measles in that town. Seventy-three deaths resulted from violent causes, and seven were caused by intemperance. Two males and seven females had passed the ninetieth year of life.

A large meeting has been held, in Melbourne, of gentlemen desirous to organise the means of shipping fresh meat to London through the agency of Mort's freezing process. A paper was read by Mr. Mort, explaining the principle upon which the cold is obtained. There seems to be but little doubt that eventually the enterprise of our Australian colonists will overcome all the difficulties which at present stand in the way of transporting meat in a wholesome condition to this country; and the importance of such a successful issue can be well appreciated when the present price of food is taken into consideration. It is useless to disguise the fact that the tinned meats sent to us from the Australian colonies are not popular amongst the very classes who would benefit most by their cheapness; and, if the carcases can be imported whole and in good condition into our markets, there is no reason why they should not meet with a ready sale at the reduced prices which could then be charged.

America is the real land of wonders, and the world is now indebted to the *New York Times* for the discovery of the "missing link" which establishes the Darwinian theory as an incontrovertible fact. According to this journal, a Mr. Silas Wilcox, an inhabitant of Prince Edward's Island, whilst digging for peat at a considerable depth, unearthed a skeleton which resembled that of a man of average height, with the important exceptions that the skull was flattened, the jaws were exceedingly prominent, the arms excessively long, and the spinal column was prolonged by nineteen vertebræ, forming an unmistakable tail of at least eight inches in length. Not only the tail, there-

force, but also the arms, jaws, and skull, went to show that the skeleton was that of a man who had been very like an ape. The discoverer has rescued his skeleton in a perfect condition, and is willing to offer it for inspection to anyone who may be anxious to investigate the origin of his species. Which will be the man, and which the ape?

We regret to learn that Sir William Wilde remains in a precarious state, but little change for better or worse having occurred within the past few days.

THE NEW PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

The importance and interest of the election of a new President caused the attendance of a most unusually, if not altogether unprecedentedly, large number of Fellows at the Comitia of the Royal College of Physicians on Monday last. It was well known that Sir George Burrows would not again accept the office, and for some time rumour had been busy with the names of two or three Fellows as being the most likely to be elected by the College to the much and justly desired dignity of presiding over them. Since the foundation of the College every President has been a graduate of either Oxford or Cambridge, if he possessed any British degree in medicine, as did all but two or three. Of the three Fellows whose names were most in men's mouths, one was a graduate of the University of Cambridge, one of Edinburgh, and one of London; and we believe that not a little interest attached to the idea of an imaginary struggle between ancient custom and tradition, and more modern and liberal ideas—between those who would still keep the presidential chair at any rate sacred to graduates of Oxford and Cambridge, and those who felt that the Presidentship as well as the Fellowship of the College should be attainable by graduates of other universities. The choice of President is not, as is well known, decided by seniority in the College. Any Fellow, skilled in the science and practice of medicine, and of ten years' standing, may be elected. But, as is equally well known, seniority does, very justly, have considerable weight and influence in the election; and as of the three Fellows before alluded to the graduate of the University of London was by three years the junior of the others in the College, it seemed probable that that fact might greatly influence the voting. We will not pretend to even guess at what actually took place within the walls of the College; no nomination of a candidate for the Presidentship ever takes place there, nor any discussion of claims or merits; and all that we have a right to *know* is the result of the election: and this was, that the choice of the electors fell on Dr. Risdon Bennett, who for years has most faithfully and diligently served the interests of the College, in many and most important offices. Dr. Bennett, who is an M.D. of the University of Edinburgh, became a Fellow of the College in 1845; has filled the offices of Censor, Councillor, and Examiner in Medicine; has delivered the Croonian and Lumleian Lectures; and is the representative of the College in the General Medical Council. And, as we hardly need add, he is well known as Consulting Physician to St. Thomas's Hospital, and one of the Physicians of the City of London Hospital for Diseases of the Chest. No one can doubt that he will worthily uphold the dignity and true interests of the College; and we heartily congratulate both Dr. Bennett himself and his University on his election to an office of such distinguished eminence and position as the Presidency of the Royal College of Physicians of London.

THE VACCINATION ACTS AT ANDOVER.

An "indignation meeting" was recently held at Andover to protest against the Compulsory Vaccination Acts. Referring to the circumstance, Mr. T. W. Blake, District Medical Officer of the Andover Union, gives the following testimony in favour of vaccination:—"A few years ago, epidemic small-pox occurred at Vernham's Dean, a district in the Andover Union, and, as the medical officer and public vaccinator to that district, it fell to my lot to visit many cases of that fearful disease in the most wretched dwellings, daily, for many weeks, inhaling the vitiated and poisoned air for several hours in succession in close rooms. It is the popular idea that doctors take some specific against such diseases, but that is a popular error. I have never had small-pox, and my only safeguard was revaccination. Five deaths occurred during this epidemic, and in all those cases vaccination had been avoided by the sufferers. In one cottage at Vernham, the father of a family objected to being vaccinated, but yielded to his wife's entreaty to have his children so protected: they escaped the small-pox, although living in the same cottage with their father, while he suffered from it in the severest form, and carries the frightful marks of it now. As regards vaccination and the universal objection to it, so alarmed were they at the havoc the pest was making in their otherwise healthy village while the enemy was in camp at Vernham, that people without any compulsion whatever flocked to the vaccination stations to be vaccinated or revaccinated. From Vernham's Dean and the surrounding villages no less than 1000 individuals voluntarily pleaded to be revaccinated; and I can positively say that all those persons who were successfully revaccinated escaped the small-pox, and only a few of those whose blood was previously tainted with other constitutional disorders, and those of plethoric habit, suffered some painful inflammatory action in consequence of the irritation of vaccination, which rest of the arm in a sling and a poultice soon relieved (a small matter compared with the ravages of small-pox); but these constituted a very small minority of the 1000 who submitted to vaccination."

THE THAMES VALLEY AND ITS SEWAGE.

Last November an inquiry was held by Colonel Ponsonby Cox, R.E., an Inspector of the Local Government Board, on the application of the Surbiton Improvement Commissioners to the Board, to form the whole or part of certain urban and rural sanitary districts, comprising an area of 170 square miles in the valley of the Thames, into a united district for the purpose of carrying into effect a system of sewerage for the use of all or part of such districts. In his report to the President of the Local Government Board, copies of which have just been furnished to the several local authorities interested, Colonel Cox enters into the question at great length. It will be sufficient, however, to state that the scheme of the Surbiton Improvement Commissioners does not meet with Colonel Cox's approval; but he suggests that the area in question should be formed into five or six districts, and that the local authorities in each should turn their attention to providing works for the purification of sewage. It will also be seen, as bearing on this subject, that Sir Charles Dilke has intimated his intention of asking the Home Secretary, on the 24th inst., whether during the present session of Parliament any measure will be introduced which will prevent towns from pouring their sewage into the Thames above the point at which the supply of water to London for drinking purposes is drawn.

THE LATE DR. PARKES.

A few of the former colleagues of Dr. Parkes at University College met, on Monday evening last, at the house of Mr. Erichsen, to consider the desirability of establishing some permanent tribute to the memory of Dr. Parkes, in connexion with University College, London. The meeting was attended by Dr. Sharpey, Dr. Reynolds, Dr. Grailly Hewitt, Dr. Corfield, Mr. Christopher Heath, Dr. Ringer, and others. Sir William Jenner, Professor Marshall, Dr. Burdon-Sanderson, and Dr. Wilson Fox were prevented by unavoidable circumstances from being present. The following resolutions were unanimously agreed upon:—1. That this meeting is of

opinion that it is desirable to establish at University College, London, a permanent memorial of Dr. Parkes. 2. That such memorial should be of a character to aid scientific investigation and practical study in the subjects to which Dr. Parkes' work has been especially directed. 3. That subscriptions be invited to a fund for the establishment of such a memorial, to which Mr. Erichsen be treasurer, and Dr. Gowers and Dr. Poore secretaries.

DEATH OF MR. CAMPBELL DE MORGAN.

It is with unfeigned regret that we have to report the death of Mr. Campbell de Morgan, one of the most respected and honoured members of the medical profession. Mr. De Morgan had been sitting up on the night of Thursday, April 6, in attendance upon an old friend and patient, Mr. Lough, the sculptor, whose illness proved fatal during the time Mr. De Morgan was with him. On the following morning, after seeing some of his other patients, Mr. De Morgan was seized with a rigor, and very quickly symptoms of acute pneumonia supervened. One lung rapidly became solid throughout. On Monday, the 10th, Mr. De Morgan's state was such as to cause very great anxiety; and early on the morning of the 12th, death occurred. This statement will be received with deep sorrow by the many friends and admirers of this excellent surgeon and exemplary gentleman. It is a gratifying fact that within the last few days a very good bust of Mr. De Morgan by Mr. Lough has been presented to the Middlesex Hospital by the sculptor as a tribute of esteem and respect for his friend the surgeon; but it is most sad to think that already both the artist and the surgeon have passed away. We understand that the funeral is to take place on Tuesday, April 18, at Kensal-green, leaving the house in Seymour-street at eleven o'clock.

WATER-SUPPLY AND TYPHOID FEVER.

A paper by Mr. Baldwin Latham, C.E., on "Subterranean Water-Supplies and Typhoid Fever," was read on Monday evening last at a meeting of the Social Science Association. The author referred to the recent outbreak of typhoid at Croydon, and thought that the evidence seemed to point decidedly to the water-supply, and to the probability of its periodical contamination under certain meteorological and geological conditions by surface-drainage. The height of the rainfall, and the consequent variation in the level of the springs from year to year, bore a singular relation to the occurrence of the outbreaks, the periods of low water in the deep wells corresponding to the typhoid seasons at Croydon. The obvious inference appeared to be that the lower the wells the greater the infiltration of impure drainage-water, and the greater the chance of infection of the water. This seems quite new at first sight. What would Herr Pettenkofer say to it?

INTERNATIONAL CONGRESS OF OPHTHALMOLOGY.

We are requested to announce that the International Congress of Ophthalmology will meet in New York, on Tuesday, September 12. Delegates from Great Britain and Ireland and the Continent are requested to register their names at Chickering Hall, Fifth-avenue, on or before Monday, September 11, when Drs. R. H. Derby and E. Gruening will meet them and give all needed information. Those proposing to read papers will confer a great favour by sending the titles of their papers before July 1 to the secretary, Dr. John Roosa.

THE SEAMEN'S HOSPITAL.

The Committee of the Seamen's Hospital (late *Dreadnought*) are making a special appeal, through the Lord Mayor, to raise the sum of £5000. Her Majesty has recently sent a subscription of 100 guineas to the Hospital, which is to be continued annually; and the Mercers' Company have given a donation of fifty guineas to the institution.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.

The annual meeting of the subscribers to the Devonshire Hospital and Buxton Bath Charity was held on April 1; Dr. Robertson, Chairman of the Board of Trustees, in the chair. The financial position of the Charity was reported to be most satisfactory. There had been a large addition to the list of annual subscribers, and also gradual additions to the investments. The number of in-patients received during 1875 was 1567, and the number of out-patients 217, giving a total of 1784 patients under treatment during the year. Of these, about 1500 were said to be cases of rheumatism, and at least seven-eighths of the patients suffering from this affection were benefited by the treatment.

LIVERPOOL HOSPITAL SUNDAY FUND.

The Committee of the Liverpool Hospital Sunday Fund have made their distribution for the present year as follows:—Royal Infirmary, £2976; Royal Southern Hospital, and Northern Hospital, each £1392; the Dispensaries, £1056; District Nursing Society, £672; Infirmary for Children, £480; the Eye and Ear Infirmary, £384; the Homœopathic Dispensary, £192; Stanley Hospital, the Consumption Hospital, and the Hospital for Infectious Diseases, each £96; St. Paul's Eye and Ear Hospital, £48; The Dental Hospital, and St. George's Skin Hospital, each £24. The total sum distributed amounted to £9600, which, we are pleased to observe, exceeds the sum distributed in 1875 by £300.

HARVEIAN ORATION, 1876.

It will be remembered that the late Dr. Parkes was appointed Harveian Orator for the present year; and that his Oration would be lost to us was one among the innumerable regrets that arose in men's minds when they heard of his death. Our readers will be glad to learn, however, that Sir George Burrows announced to the College of Physicians, on Monday last, that Dr. Parkes left his papers for the intended Oration so far prepared that Sir William Jenner has undertaken to "edit" them, and to read the Oration at the College on the appointed day.

A WHOLESOME REGULATION.

The Commissioners of Sewers of the City of London have issued notices to the effect that in future all young veal—known in the trade as "bobby" calves—exhibited for sale in the Metropolitan and other dead-meat markets will be seized and condemned as unfit for human food. No calf under three weeks old, or weighing less than forty-three pounds, will be exempt from this regulation. Recently the markets have been glutted with suckling calves a few days old.

PARLIAMENTARY.—ARMY MEDICAL SCHOOL—ADULTERATION OF WHISKY—HEALTH OF DUBLIN—CERTIFICATES OF DEATH—CATTLE DISEASES (IRELAND)—TYPHOID FEVER AT EAGLEY—ST. THOMAS'S HOSPITAL—MEDICAL RELIEF (SCOTLAND).

In the House of Commons, on Thursday, March 30,

Mr. Hardy, replying to Mr. O'Leary, said the question of the Army Medical School would be submitted to the Senate under the new system for consideration, and until he had considered their report it was not proposed to fill up the Professorship now vacated.

On Tuesday, April 4,

Mr. O'Sullivan moved for a Select Committee to inquire whether the practice of blending, and thereby adulterating, Irish whisky in bond with inferior Scotch spirit is injurious to public health, and whether the Government ought not to be empowered to detain all spirits in bond for the space of a twelvemonth. He stated that the blending was carried out under the eyes of the Government officials, and so received, as it, were Government sanction.

Mr. Anderson moved, as an amendment, that blending was not adulteration. No man, he said, could drink Irish whisky unless he had been weaned on it, and it required the blending with Scotch whisky to improve it.

Sir Wilfred Lawson believed that good whisky did as much harm as bad whisky.

The Chancellor of the Exchequer said he thought there was no harm in permitting manufacturers to carry on their processes in bond, and objected to the appointment of a Committee as a waste of time.

Mr. Greene lamented that the debates of the House of Commons should be utilised to advertise the wares of certain manufacturers; and the House divided, when the motion was negatived by 145 to 69.

Mr. Anderson then withdrew his amendment.

Sir M. Hicks-Beach, in answer to Mr. O'Leary, said a meeting of the medical sanitary officers of Dublin was held on March 15, and the opinion expressed by it on the high death-rate recently prevailing in Dublin was that the increase was mainly due to diseases of the respiratory organs. Of 230 deaths in the past three months, in excess of the average of the corresponding quarter of the previous ten years, 175 were due to respiratory diseases. The most preventable diseases, such as fever and scarlatina, were remarkably below the average of the past ten years. The meeting made no recommendation on the subject.

On Thursday, April 6,

The Chancellor of the Exchequer, in reply to Mr. Holms, said he had no authority to issue instructions to the Registrar-General. He had stated already that the legal charge which the registrars could make was 1s. each for certificates of death; but they were not bound to fill up the forms. He had authority from the Registrar-General to state that during the three months the Act had been in operation no information had reached him that more than 6d. had been charged for filling up the forms. Some registrars charged 3d., and some nothing.

The House went into Committee on the Cattle Diseases (Ireland) Bill, when progress was immediately reported.

On Monday, April 10,

Mr. Sclater-Booth, in answer to Mr. Cross, said it is not true that the Local Government Board have decided not to make any inquiry into the circumstances of the lamentable outbreak of typhoid fever at Eagley. The only cause of delay has been that the sanitary authorities seemed to be discharging their duty remarkably well, and that they were engaged in prosecuting inquiries of their own through the agency of their medical officer and other skilled persons. Quite recently a communication has been received from the sanitary authority, expressing their wish that a Local Government Inspector should conduct an exhaustive inquiry; and that will be done immediately after Easter.

Mr. Sclater-Booth, replying to Sir J. Scourfield, said that his attention had not been called to the recent case of the rating of St. Thomas's Hospital in any formal or official way, but he was generally cognisant of the circumstances. He need hardly inform his hon. friend that the cost of a building was not a proper criterion of value for rating purposes, however interesting it might be for a valuer to be possessed of such knowledge. The Valuation Bill retained the existing law, which based gross rental on annual value, and not on the capital expended in construction. He could not undertake to insert clauses to prevent things being done which are at variance with the statutory principles of assessment.

The Chancellor of the Exchequer, in reply to Mr. M'Laren, said it was impossible to treat the question of the Medical Relief Grants for Poor-law purposes in Scotland by itself. It must be treated in connexion with other questions; and it would be dealt with under a Bill, of the introduction of which notice had been given by the Lord Advocate, for the amendment of the law relating to the relief of the poor in Scotland.

At a meeting of the Court of Common Council, last week, Mr. Harry Leach, M.R.C.P.L., was re-appointed Medical Officer of Health for the Port of London for one year, at his present salary—viz., 500 guineas. Mr. P. Whitcomb, M.R.C.S., of Gravesend, was also re-appointed Medical Officer of Health of the ship *Rhin* for one year, at a salary of 200 guineas.

A New Stomatoscope.—Dr. Bruck, jun., a privat-docens of dentistry in Breslau, has discovered a new mode of illuminating the teeth and cavity of the mouth. The apparatus enables the practitioner to detect the slightest morbid changes in the teeth; and so great is the intensity of the light (to produce which the Drummond lime-light is employed), that even the roots of the teeth within the jaws can be recognised.—

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

(*Continued from page* 399.)

With regard to the *colour* of the abdominal viscera, we must especially bear in mind that the notion is even now very prevalent that arterial blood, and therefore the arterial vessels, both in the dead body and in the living, are distinguishable by their deep-red (*hochroth*) or bright-red (*hellroth*) colour. This notion is founded on a primary error. Arterial blood in a dead body is always of a dusky red colour. This is just as true with regard to the blood of the pulmonary veins and left side of the heart as of that of the aorta and peripheral arteries. Anyone who has carefully noticed the large arteries on the base of the brain, which, on account of their relatively free and superficial course, are very convenient for observation; anyone who has been impressed with their bluish-red, thoroughly venous appearance; anyone who has carefully observed in the left auricle the dusky-red blood which has just come from the lungs and just been aërated, and this in persons who have not died from suffocation,—ought for ever to be cured of the mistake of supposing that a dead body ever contains bright-red arterial blood. No recently exposed portion of a dead body has a bright-red colour, the lung excepted, and then only when filled with air, and where, therefore, even after death, a certain quantity of oxygen may be absorbed. And even in the lung this is not common, as may well be supposed. In this organ the tissue containing the blood is full of alveoli containing air, and thus, as when froth is formed, a whitish colour is produced, which, mixed with dusky-red, produces a bright-red shade. This is beautifully seen in the lungs of new-born children.

It follows as a matter of course, and in individual cases it can be directly proved, that in no portion of the viscera of a dead body can arterial injection be recognised by the colour test. Even when the arterial injection is very considerable, the colour of the part may be just as bluish-red or blackish-red as in venous hyperæmia. Whoever wishes to assure himself on this point may do so by examining the kidneys, where, with the naked eye or with a simple lens, he will easily see the Malpighian corpuscles, purely arterial structures, appearing as very dark-red points or granules in consequence of the fulness of their vessels.

After death, however, the blood does not lose its power of absorbing oxygen, and of thereby assuming an arterial appearance—*i.e.*, a deep-red colour. This statement, indeed, must be taken with certain limitations, for there are some cases in which the blood, even before death, possesses a much diminished power of absorbing oxygen, and there are others in which it becomes so altered after death that its capacity in this respect is entirely lost. In both cases it is, however, arterial blood. On the other hand, even in ordinary cases, venous blood in the dead body possesses the power of absorbing oxygen. Thus it may happen that a part affected with venous hyperæmia becomes, when exposed to the air, after a time, deep-red in colour, and exhibits the appearance of an arterial injection. Naturally the change takes place much less readily and quickly in large and very full veins than in small ones; it is therefore of most frequent occurrence in the plexuses formed by the venous radicles.

What a number of erroneous judgments have been due to want of knowledge of these very simple facts! How often has irritation or even inflammation been inferred merely because of a deep-red colour of the parts, or of a deep-red injection of the small vessels, whereas this colouration has really arisen in the course of the dissection! For the time usually required for the examination of the thoracic organs is amply sufficient for the change, from dark-red to bright-red,

(a) From the *Charité-Annalen*.

to take place in those viscera of the abdomen which have been exposed. Hence the requirement in the regulations that the colour of the exposed portions of the abdomen is to be determined directly the cavity has been opened—that is, before the oxygen of the air that has gained access has had time to exert its influence.

As I have just touched upon this subject, I may say a few words more with reference to the much misused term, "fulness of the vessels." With regard to this, it appears to me important, considering the only too frequent incidents impressed on my memory, to lay great stress on the following points:—

1. Capillary injection cannot be recognised as such, in a general way, with the naked eye. The finest vascular network which the naked eye is able to discriminate is either arterial or venous, and in the majority of cases venous. This holds good especially of mucous membranes, in which the comparatively superficial position of the venous radicles very frequently causes them to be mistaken for capillaries. All capillaries are microscopic objects, and when filled with blood it is not red capillaries but red tissue which is observable. This redness really gleams out from the interior of the tissue, and we can here, in a certain sense, justly say that the tissue is injected. Nowhere can this condition be so well observed as in the cerebral substance, especially in the soft, translucent grey matter. All shades, from the faintest reddish tinge up to a dark hydrangea-red, are here met with, and though single fine vessels filled with blood may be distinguished in the red spots, we can easily demonstrate that the colour of the tissue is not due to these vessels. To this category belongs that peculiar mottled redness which is not unfrequently found in the white medullary substance and in the optic thalamus and corpus striatum, and which is very similar to the first symptom of frost-redness on the surface of the body. In my "Cellular Pathology" (fourth edition, page 107, Fig. 35) I have given an illustration of such a condition; it can easily be understood from this: only the few larger vessels, which are shown in the drawing, could with difficulty be made out with a lens; all the other vessels were only visible on careful examination with the microscope. It is, therefore, intelligible that to an expert there is something absurd in the expression "inflammatory hyperæmia" (occurring as it does in numerous reports) referring to anything which can be directly discovered with the naked eye. Nowhere is this expression more absurd than when it is used in reference to the stomach, as it can be proved in the majority of the reports that what the observer has noticed have only been veins.

2. The venous or arterial character of a vessel can never be determined by the quality of the blood therein contained; but in all cases we must be guided only by its structure, its connexions, and its position. In other words, it is not to be discovered at the autopsy only whether a vessel is an artery or a vein; but, with regard at least to all larger vessels, this ought to be known previously. It certainly once occurred to me that a practising physician, who presented himself for examination, was very much astonished when (in consequence of various wrong answers) I asked him a question as to the nature of some of the larger vessels of the brain. His answer was, that he had not prepared himself on that subject, because he had not expected to be asked any questions, in his examination, in normal anatomy. However, I think I can maintain the proposition, that, inasmuch as without a correct knowledge of angiology, and even of the smaller vessels, the results of a medico-legal investigation may so easily be false, no one can possibly be a good medical jurist who is not thoroughly conversant with these matters. In referring especially to medical jurists, I do not, of course, mean to imply that such knowledge ought not to be possessed by ordinary physicians; but what I wish to express is, that it is still more obligatory in the former class. In puzzling cases (which, I admit, do occur to the expert, and even to the anatomist) there is one plan which will be found to be of the greatest assistance, and that is to follow the course of the vessel until a point is reached where the size becomes a sufficient guide as to the nature of the vessel, even to the less experienced observers; particularly if in a membrane we meet with a small vessel filled with blood, we can, by displacing the blood, often succeed in ascertaining the course and connexion of the vessel.

3. A statement with reference to the quantity of blood contained in a part can only be regarded as approximatively exact when the description indicates not only the kind of vessels in which the blood is contained, but also, to some extent, the degree of their fulness. By this I do not assert that we are able without minute examination—which is not in all cases possible—to make such statements with regard to all parts; and with reference to many of them, I confess that a general description of their appearance and colour is all that is required. This holds good, for example, of the spleen, with regard to which no one, by simply looking at the surface of a section, could properly estimate which of the small vessels were filled, and the extent of their fulness. But there are many parts of the body—and this refers especially to the mucous and serous membranes; consequently, to the majority of the internal surfaces—which can very easily be examined, and in which, in important cases, the attempt should always be made to ascertain positively the nature of the vessels concerned. It is certainly easier to pronounce an opinion than to give such a description; but the experience of the slight utility of such opinions has caused the Committee of Sciences to include the following direction in their new Regulations, section 28.

"In all cases a statement must be given with reference to the amount of blood contained in each important part; and what is required is not merely an opinion, but a terse description, using such terms as 'profuse,' 'moderate,' 'slight,' 'much reddened,' 'full of blood,' 'bloodless,' etc."

This explanation may suffice to illustrate the way in which statements should be made with reference to the colour of the exposed abdominal viscera, and to what extent it is important that this should be determined immediately after the abdomen is opened. I will only make one more remark—that every manipulation of the intestines and other parts of the abdomen, by which their position is altered, their natural pressure diminished or increased, or even any direct pressure with the hand, alters the amount of blood contained, and not only of this, but also of the gaseous, fluid, or more solid matter contained in separate portions of the intestines.

Still more important than the determination of the colour is the immediate ascertaining of any foreign substance which the abdomen may happen to contain. If there be gas, it is very obvious that its existence can be generally proved only at the moment of opening the abdomen. If it be a liquid, there is the danger of losing some of it unless it be collected at once. In every case, however, when the thorax is opened and its contents removed, it is almost impossible to prevent blood and other fluids from getting into the abdomen; and thus, when this latter cavity is examined, the appearances are obscured or directly falsified. The like holds good of those cases in which the subsequent examination has particularly to be directed not to the thorax, but to single parts of the abdomen; for example, the stomach. It is extremely difficult, in removing and opening this organ, to avoid soiling the abdomen; and therefore, if the existence or non-existence of any anomalous contents has not been previously determined, it is scarcely possible to do this after the stomach has been interfered with.

I can be much more brief in my remarks with regard to the first portion of the examination of the thorax. Nevertheless, clear as the conditions are, I know from manifold experience how difficult it is to arrange a definite method of procedure. In explanation, I must first make the apparently paradoxical remark that the thorax, strictly speaking, is quite an abstract term. In reality, there is nothing which corresponds to it except in the skeleton, or in a cadaver from which the viscera have been removed. In the living subject and in the ordinary condition of a dead body there is not one, but several thoracic cavities. For there are, in the first place, two quite separate pleural sacs, and therefore also pleural cavities; and, in the next place, a pericardium, and in it a pericardial cavity.

Therefore in a dead body we never really open the "thoracic cavity," but the fact is, rather, that if in removing the breastbone we do not somewhat unskilfully cut and "open" the pericardium as well, the result is that when the sternum, together with the cartilages of the ribs, has been detached, we get on each side into a pleural cavity or space. The so-called mediastinum is no cavity in this sense, but a septum filled with loose tissue, and it would be far more intelligible if we represented the mediastinum as a septum, and did not speak of it as a space. If, therefore, in opening the thoracic cavity we really come into the pleural sacs, our duty is here, as in the abdomen, immediately to examine both these sacs with regard to the position, colour, etc., of their contents, and also to look very particularly for any possible foreign body which may be present. This examination is much more important here than in the abdomen, for it happens only too often that in cutting

through the first rib and the sterno-clavicular articulation, as well as in the actual removal of the sternum, large veins (such as the internal mammary, the internal jugular, and the innominate) are pierced, cut, or torn, and fluid or coagulated blood escapes. In a short time this finds its way into one or even both of the pleural sacs, and, no matter whether these previously contained anything or not, it is subsequently impossible to express a positive opinion, either as regards the quantity or the quality, or in many cases even to decide as to the pre-existence, of any contents whatever. I need not explain how very important the demonstration of any anomalous contents in one or both pleural sacs may be in helping us to form an opinion with regard to a case, and I therefore think that it is certainly proper always to commence the examination of the thoracic cavity by ascertaining the condition of the pleural sacs, and to leave the lungs and the pericardium for subsequent observation. For he who would open the pericardium and dissect the heart before determining whether hæmatothorax or hydrothorax or pleuritis be present, is a man who ought not to undertake a post-mortem examination at all.

But it is just as evident that the lungs ought not to be removed from the thorax before the heart has been examined, for this cannot be done without separating the pulmonary artery and veins. Unless ligatures are previously applied to these vessels—and it is neither customary nor needful so to do—their division will be immediately followed by the escape of a certain amount of the contents of the left auricle, of the trunk of the pulmonary artery, and of the right ventricle; and just the same thing happens as when we remove the liver and open the inferior vena cava before opening the thorax—viz., a diminution in the quantity of blood contained, or else a complete emptying of important parts of the heart.

Considerations such as these, very naturally and for certainly sufficient reasons, lead to the formation of a definite plan of examination of the parts, which is quite independent of personal caprice or any external circumstances of convenience, but follows necessarily from the nature of the thing itself.

(*To be continued.*)

LETTERS FROM MADRAS.—No. XVIII.

Contempt of the Hindu for European Medicine—Surgeon-General Balfour's Series of Popular Medical Tracts—Native Physicians—Vydians and Hakims—Interview with Native Practitioners, who are as the Europeans were in the Fifteenth Century.

The other day there was a proposition to raise fresh taxes in this city, for various municipal purposes, of which the maintenance of hospitals and dispensaries was one. Like all taxation, it met with opposition; but one of the objections may strike your readers as curious. A Hindu gentleman said that "as the Hindu community put no faith in European medicine, and did not recognise it, therefore it would be unfair to tax them for the support of institutions in which it was practised."

Two Hindus who were ill were advised to go on pilgrimages to the shrines of certain gods. They set out: one of them died on the road; the other accomplished his vow, but returned home in a state of terrible illness and exhaustion, in which he continued for many weeks. At last some friend sent to him an English missionary clergyman, who is also a qualified medical practitioner. He attended the patient, and restored him to health. A native Christian friend attempted to draw a moral. He pointed out the folly of heathen idolatry, and the benefit of European skill. "That may be," said the patient, "but now that I am well I shall go upon another pilgrimage."

These anecdotes may serve to show what a gap there is between the opinions, manners, customs, and faiths of the European and of the native of India.

Now, as it is, or ought to be, the object of the European to supply what is wanting and reform what is wrong in the Hindu system, so we find that philanthropists are desirous of supplying the natives with medical attendants who know something of modern science. To this end Surgeon-General Balfour, of the Madras Army, has during his long and laborious career produced a large quantity of popular medical literature. These are "Conquest's Outlines of Midwifery," translated into three languages (Tamil, Telugu, and Canarese), each translation published with an English version, and with plenty of plates. Under Dr. Balfour's auspices are published also "A Manual for Nurses in India," by Drs. Van Someren, Harris, Keess, and Harvey; "A Manual for Pupil-Midwives," by Mr. Newland; "How to Treat Women in Labour," by Mr. Boon; "How to Treat Injuries," by Mr. Gilles; "Fevers of India, and How to Treat them," by Mr. Anderson; and a "Manual of Vaccination," by Dr. Shortt, in English, with coloured plates, and in each of six of the languages of the South of India. To this popular series of tracts, published at the lowest possible prices, is added one by Dr. Balfour himself, entitled "The Vydian and the Hakim: What do they Know of Medicine?" Let me observe that (as is well known) there are in India two chief populations—the Hindu and the Mussulman—who are as separate in medicine as they are in law, religion, and race. "Vydian" is the name given to the Hindu physician in the South of India, and "Hakim" to the Mohammedan.

One result of Dr. Balfour's experience is the conviction that, spite of all that has been done in India to propagate European medical knowledge, "it has yet made little impression on the 200,000,000 under British rule, and it may truly be said that medical science as now taught in Europe has in India not even begun to displace the theories which Churaka, Susruta, Hippocrates, and Galen promulgated two and three thousand years ago." It seems that the native Hindu physician possesses a system laid down by Sanskrit writers at least 500 years before Christ, and having much in common with the early medicine of the Greeks; whilst the Mohammedans, who came into India only 800 or 900 years ago, have a system based on the Arabian writers who flourished after the downfall of the Greek philosophy. The Mohammedan physicians say that their system is "Yonani" or "Yunani"—*i.e.*, Greek (*Ionian*)—and call the system of the Hindus *Misri*, or Egyptian.

After reading Dr. Balfour's interesting tract on the amount and kind of knowledge possessed by the native practitioners, I became possessed with curiosity to see and judge for myself. So I got a friend amongst the native Christian clergy to bring one to call upon me, and have a talk upon medical matters. Accordingly, my friend called early one morning, bringing with him T. Veloithum Pandárum, a Hindu Vydian or physician, practising largely in one of the suburbs of Madras. A courteous gentleman he was, in most unpretending native dress; and, after a few compliments, which my friend interpreted, I told him I was not very well, and invited him to feel my pulse. The recognised method of doing this is very exact and circumstantial. The doctor gently took both the fingers and thumb of my right hand into his right, so as to hold the hand steady, whilst he placed three fingers of his left hand on my pulse just above the wrist. Then he proceeded with great deliberation, raising each finger in turn, so as to compare the force of the pulse under each finger; then he pronounced my malady to be heat and bile. In answer to my question, he said there are three pulses at the wrist, felt by the physician's three fingers. That nearest the wrist is caused by wind, and its character shows excess or deficiency of that principle; the next finger is over the pulse caused by bile; the third over that caused by phlegm. Each pulse has several distinct kinds of motion, which are comparable to the movements of animals: thus, some pulses seem to crawl as a snake does; others to strut like a peacock, or waddle like a goose; and from these several characters valuable hints are got as to the nature of the disease. We had a long conversation, in the course of which I could not help admiring the cleverness with which my friend evaded any awkward questions; for instance, he refused to give me any definite opinion on my own maladies because the hour of the day was past at which a sick man ought to be visited and examined. I do not doubt but that he has a stock of useful remedies for various common maladies and symptoms, which may properly be called *nostrums*, as they have been handed down from father to son in his own family for generations. In the treatment of fever he adheres at first to the native practice of absolute fasting, hoping that the fire will die out if deprived of fuel; but has no prejudice against quinine, and uses it "in the proper cases." He repudiates the necessity of any religious invocations or formulæ during the preparation or administration of medicines. Asking him what would do good to a loose cough, which plagued the native clergyman, he gave a recipe containing various spices, powdered and made into a confection with ghee, and I should think it a good remedy. So, after some more comments on general topics, the Vydian took his leave.

The Hindus in general acknowledge the superior skill of the Europeans in surgery. They seldom or never open an abscess, but apply irritating vegetables to all tumours, forming the most frightful sloughs in the skin. That their medicine is imperfect is clear, for it has been stationary for centuries, and consists of traditional rules, based on ancient writings, and never corrected by observation. One or two shrewd practices are evident here and there; for example, Heyne, in his "Tracts on India" (London, 1814, p. 147), says it is laid down that, "before the patient takes his medicine, the god of physic is to be worshipped in the person of his deputy—the physician,—who (it is seriously recommended, for the good of the patient) must be well paid for his services," lest the god be offended. Such is a very short sketch of the Hindu Vydian, and what he knows of medicine—the man whom the Hindu community trust to in preference to the European. Now let us look at the Mohammedan Hakim.

There is a resident lady, who is conspicuous for her knowledge of native languages, and for her activity in the management of all the charitable institutions, and therefore is eminently well known and popular amongst all classes. So I told her my wish, and straightway was invited to meet a Mohammedan Hakim at her house. I should rather say *the* Hakim—Jawand Hoossain Khan,—for, like the "Last Minstrel" of Sir Walter Scott, he is the sole remaining representative of a once numerous and learned body. Once there were many of them, enjoying the favour of the Nawab and the Mussulman nobility. But an "iron time" has come upon the Mussulmans. The Nawab's successor is now a mere prince and a pensioner, where his grandfather was supreme ruler, and a very good ally of the English; he has some dim shadow of royalty still hovering over him, but his power is gone, and his finances are crippled. A hundred Moolvies or learned Mohammedan clergymen left Madras when the Nawab died. The Mussulmans are impoverished and out of heart, and of their physicians this one only is left. He is a dignified and enthusiastic-looking man, who soon told me that he was a Shia, and looked upon the Sunnees, the prevailing Mohammedan sect, as very sad heretics indeed. He told me in good English that he was the son of the late physician to the Nawab, but that he did not intend to bring up his own son to medicine. He had, before studying medicine, received a thorough education in philosophy and logic, which he looked upon as an indispensable preparation. He showed me a large number of authoritative treatises on the different branches of medical principles and practice, in Arabic and Persian, all beautifully written with his own hand; besides a MS. treatise on the British constitution, in English. There was a kind of Compendium of Medical Science which the medical pupil was required to learn by heart, and recite to his preceptor. Of course the pupil could not understand it; but the master refused all explanation till the pupil could recite the whole. This is a favourite method of education amongst Orientals. All practice, he said, must be founded upon correct principles; and these were to be found in the works of authoritative writers, and applied according to the rules of philosophy and logic. "Don't ask me," he said, "how to treat *fever*, but show me the patient, and let me examine all his organs, and inquire into his temperament, and the causes; and then I will treat the patient; but it is absurd to prescribe for the name of a disease." "Do you use quinine?" I asked. "Certainly not; it is a mere English remedy, unknown to our best authors. Besides, I do not know its composition; and no physician ought to use a drug whose composition and operation he knows not." [This reminds me of some people to be found nearer home, who, as Mr. Squire tells us, in his "Pharmacopœia," will not prescribe sarsaparilla, because they cannot tell how it does good.] "Did you ever dissect?" I inquired. "O dear no!" said the Hakim with a smile. "Why should I? Are not the organs all described in our books? And, besides, it is against the precepts of our religion." Then we fell into a talk about the heart, which he described as consisting of *mutton* (the commonest word used here for flesh) and membrane, with certain cavities: its function is to serve as a central heat to the body; whilst the lungs operate as ventilators or punkah, to cool it. "How do you describe the circulation of the blood?" I asked. "There is no circulation of the blood," was his reply; "but some blood goes to the liver, some to the lungs," and so on, just as Galen described it. The Hakim absolutely refused to feel my pulse, on the plea that it was not the proper time of the day, and displayed great ingenuity in evading any question he did not care to answer. We had, besides, a little talk about diabetes, of which he read me the account in the work of Mokhtal Ibn Hibbel. It is, says this authority, a kind of dropsy; differing only in this, that the water accumulates in the bladder, whence it escapes easily. Barley-water and decoction of fleawort-seeds are good remedies.

We talked of wine, and I asked if he did not think it a valuable stimulant. "Perhaps," he said; "but we have much better remedies. In case of extreme weakness, we give powdered pearls—nay, sometimes rubies or even diamonds; and these are much better modes of keeping up the vital heat; besides that, wine is forbidden by our Prophet."

I parted from the Hakim with immense respect for his industry and abilities. He is a thorough gentleman in manners; knows English pretty well, besides the languages necessary for Mohammedans, as Arabic, Persian, and Hindustani; is acutely logical, and of tenacious memory; but the philosophical and medical systems to which he has devoted his life are like the mere hollow, barren trunks of trees whose growth was stopped, and their heart rotten centuries ago. To learn by rote what is not understood; to take everything on authority; to think by rule; to observe nothing, and make no experiments; to believe in the absolute perfection of their own systems, and despise the rest of the world;—such are the features of the Indian Vydian and Hakim. And as is the medicine, so is the religion of the country. Their physic is like what Europeans practised up to the fifteenth century; and anyone who knows how late the real civilisation of Europe was need not despair of India.

In my next I hope to show further what is done to promulgate European medicine amongst the natives.

SYPHILITIC DISEASE OF THE CEREBRAL ARTERIES.

This work begins with a short but interesting historical sketch of the literature of this subject, tracing it forwards from the fifteenth century up to the present time. The author then makes a very brief but critical mention of all the most recent works on this subject. In the next chapter he gives a statistical account of the material from which he has drawn his conclusions. Out of 164 autopsies on syphilitic brain disease he found sixty-eight cases of syphilitic new growth with or without softening of the brain-substance (no mention of arterial changes); thirty-six cases of simple meningitis, encephalitis, or brain atrophy (in only two cases are the arteries spoken of as healthy); in sixteen cases no nerve lesion was appreciable; and in forty-four cases, together with syphilomata or inflammation, with or without other lesions, there were arterial changes—thickening of the walls, obliteration, or thrombosis. It will be seen that arterial changes were specified in one quarter of the total number of cases, and that although this is a large proportion, yet probably they existed in a much greater proportion had the vessels been carefully examined. In the third category of sixteen cases, where no appreciable lesions were found, although there had been marked symptoms during life, it is highly probable that arterial changes may have existed. But the author, for the sake of accuracy, has strictly confined his observations to those cases where arterial lesions are definitely recorded; he then proceeds to a discussion of these cases, the clinical history and autopsy of each one being given in abstract. Our space will not allow us to follow him in all these details; we must refer the reader to the work itself, which will well repay perusal and study. He next proceeds to the anatomical situation and character of these arterial changes. The part primarily and solely affected in this syphilitic disease lies between the endothelium and the membrana fenestrata. In a very early stage the changes are difficult to estimate: the author thinks that the sole reliable guide is the size and condition of the lamellæ of the endothelium—in the normal condition they are much smaller than in a thickened artery. In the normal intima, taken from a man aged twenty-four, the

(a) "Die luetische Erkrankung der Hirnarterian." A Monograph. By Dr. Heubner, Professor of Medicine at the University of Leipzig. Leipzig. Vogel's. Pp. 238.

cells including processes measured 0·03 millimetre, the nucleus 0·006 to 0·009 millimetre; while in the case of a thickened intima although there was not even a trace of fatty degeneration, the cells measured 0·08 millimetre, and the nuclei 0·012 millimetre. The earliest change is the appearance of a very slightly granular opalescent substance in which a few scattered nuclei are embedded; this substance is situated between the endothelium and the membrana fenestrata, a part which in the normal artery is almost free from cells, and for the most part from nuclei. Many of the nuclei are in process of division, and among them may be distinctly recognised a few nucleated spindle-cells, which have been developed from them. It may be argued that they are wandering cells direct from the blood, which, owing to irritation of the endothelium, have been allowed to emigrate, but which are unable to pass through the membrana fenestrata. This, however, is not probable, seeing that at no point of the vessel could any collection of white blood-cells be detected along its interior surface. Besides this, in all experiments on inflammation it was found that emigration did not take place from the arteries, but from the veins; and, further, when such nuclei are found beneath the endothelium, it will be shown further on that they come from without, and not from within. There are also other grounds, and the author considers them conclusive, for believing that they are not wandering cells:—1. Their morphological characters: If the round cells of a later stage be subjected to acetic acid, they immediately show either one large nucleus, or two or three smaller subdivided ones, while the nuclei above referred to simply show one or two nucleoli; and hence it cannot for a moment be supposed that they are even transition forms of wandering cells. 2. The quantity of the cells: If an inflamed part be examined, it will be found that large numbers of cells are collected on the exterior surface of the small veins, that they are also collected along the interior surface, and that many are in process of emigration. Nothing of this kind was found in the syphilitic arteries: the number of nuclei was very limited, and their collection was very gradual. 3. That, although round cells no doubt do form in the later stages, they are derived from the vasa vasorum, and are the result of irritation caused by the new growth on these vessels. And, finally, that they are found in the adventitia and muscular layer of the arteries.

After this slight digression, the author proceeds to describe accurately the mode of development of the new growth. He shows that it is due partly to a further subdivision of existing cells, and partly to a new deposit of cells by the endothelium. It is to be especially remarked at this stage that the cell development is by far more active than that of the intercellular substance (being an important difference from the atheromatous process). As the growth increases, the endothelium is separated from the membrana fenestrata, and the intercellular substance becomes less and less manifest, while the cells become more compact and flattened. Giant-cells are now seen: they seem to result from a coalescence of the compressed spindle-cells. Next appear small round cells, and for the most part in the muscularis and adventitia; and, as before said, the author believes that they are derived from the vasa vasorum, and emigrate as the result of irritation on these vessels. The new growth now grows more rapidly: it does not, as at first, entirely depend for its nutrition on the small blood-current passing through the diseased artery, but seems now to feed on the wandering cells which the irritation of its presence has attracted to it. The artery in this way becomes more and more narrowed, and finally occluded. However, to whatever extent this new growth developes, it is always anatomically confined to the same region in which it was first produced—viz., between the fenestrated membrane and the endothelium, both membranes, except in rare instances, remaining entire. The author now goes on to trace the further development of this new growth—one of the most striking features (and best seen in transverse sections) being the appearance of a number of small lumina, measuring about 0·004 millemetre; they are capillaries, and, seeing that the artery is quite free from vessels at this part, we must look upon their presence as signs of a stronger organising power than such growths are usually considered capable of. The organisation, however, goes on still further: a new layer of membrana fenestrata is formed, so that the new growth lies between them. It would seem, the syphilitic irritation having ceased to act, as though the endothelium resumed its normal activity, and formed a new membrana fenestrata over it, exactly as it did in the young organism over the muscularis. Finally, the new growth differentiates itself into layers, which ultimately form the walls of a new vessel within the old walls, and become anatomically identical with them in structure. According to the analogy of adenoma, this process should be called arterioma. In a developmental point of view, the process is an exceedingly interesting one—viz., a new growth derived from the endothelium ultimately developing into a normal artery—a means of cure, which, although undoubtedly it leaves the blood-stream greatly lessened, still allows a not inconsiderable amount of blood to pass through. Unfortunately, in very chronic cases another termination is possible—viz., cicatrisation, and consequent stenosis of the artery, leading to complete destruction of that part of an organ in which it has developed.

In the next chapter is given a contrasted parallel between the syphilitic changes just described and atheromatous degeneration, which must not be confounded with each other. First, the duration: In syphilis, a few months may sometimes serve to produce occlusion of a vessel; while in atheroma, though we have no exact data to go on, there can be no doubt that the process may last for years, perhaps for tens of years. Syphilitic disease may be called acute—atheroma, chronic arteritis. Secondly, in the earliest stages of chronic arteritis the vessels are dilated and the lumen larger than in health; and, in the late stages even, the secondary stenosis never becomes so marked as in syphilitic disease. Thirdly, in atheroma the disease is pretty general, or at least affects large and long tracts; while in syphilis it is localised and confines itself to spots. And although the changes commence in exactly the same anatomical position in both diseases, yet "the whole process of chronic arterial disease, as seen, especially, in old people, has not the character of a new growth, but rather that of a true hypertrophy, for we find only an increase of those elements which the intima already possesses—in fact, the intima of the small arteries assumes the attributes of the intima of the larger arteries." The importance, too, of the syphilitic affection is much greater, and leads constantly to occurrences such as are excessively rare in atheroma. The two diseases may occur in the same individual, especially in old people; but in younger ones the induration of brain arteries is almost always syphilitic. The author believes that there is a greater analogy between the organisation of a thrombus and the healing of a wound than with atheroma, though it is an analogy rather than an identity of process.

The next point to consider is—What is the essential part of this process? What relation does it bear to other syphilomata or gummata? As Virchow teaches, so the author believes, that there is nothing *specific* about it. The cells have no particular shape—they may be found in sarcomata, gliomata, and in cancers. Nor is their relative arrangement peculiar. Analogy shows, too, that similar changes are brought about in the organisation of thrombi and during the healing of a wound. The results, therefore, are due to the natural powers of the endothelium, rather than to the specific nature of the means by which the process is set going. Still this fact remains, that syphilitic irritation has the special power of irritating these cells, which gives rise to proliferation—that means to say, produces a kind of new growth; while the irritation of increased arterial tension (*e.g.*, in hypertrophy of the heart) only tends to produce simple hypertrophy (so-called chronic endarteritis). It is interesting also from the cell-pathological point of view. The earliest changes commence in the fixed cells of a part, which at first are quite beyond the reach of the wandering cells of the blood; and the secondary changes are due to the cell-proliferation thus set up. No doubt the wandering cells do take part, but it is at a later stage of the change, and again disappear so soon as the new growth has organised vessels of its own. This view of an arterial syphiloma has an important bearing on the doctrine of syphilitic new growths in general; and the following questions naturally arise. Has the syphilitic poison a special power on the connective-tissue (endothelial) cells? and is the greater or less resemblance of a gumma with granulation tissue due to the more or less rich vascular supply of the part where the tumour is being developed? Are syphilomata so rare in some places (interior of the brain, for instance) because of the scarcity of connective-tissue cells; so common in others (testes, skin, submucosa, liver, nerves, subarachnoid spaces) because they are rich in these elements? Do they in some places ever form the stroma, in the areolæ of which lie embedded cells which come from the blood? and does the curability of syphilitic tumours possibly consist in the specific power of organisation possessed by the

endothelium? and is the cheesy retrogression only the result of a too numerous heaping together of unnecessary blood-cells?

We must pass somewhat hurriedly over Chapter IV., which discusses the physiological importance of syphilitic disease of arteries of the brain, seeing that it is one to which we cannot do justice in an abstract. It commences with a description of the normal circulation, and of the difference in the blood-supply to the central and cortical portions. The latter receives its blood from the pia mater, and the vessels freely communicate before reaching it, so that the effects of a temporary stoppage or diminished supply would probably soon be compensated for; while the former receives only terminal branches (*Endarterien*), which naturally do not so freely inosculate,—hence the more extensive and more permanent morphological changes which would result from a diminished blood-supply to this part.

Chapter V. treats of the pathology of the affection, and first as regards its etiology. It must be classed among the later symptoms, not only because in many of the cases there were numerous other signs—such as nodes, affections of the liver, testes, and larynx,—but also because some years were known to have elapsed since the primary infection had taken place. In eleven cases, well marked, the interval varied from three to twenty years, and in only one case did it occur shortly after the primary infection (viz., half a year), the history of which was very doubtful. It was remarkable that in the cases of early disease of arteries, it had developed *pari passu* with a new growth in the subarachnoid space, which suggests that this tissue is still more easily affected than the intima of the arteries.

The arterial system has not an equal susceptibility all over: the brain arteries show a considerable predilection, and the anterior a greater than the posterior; thus the basilar artery was affected once, while the carotid or its branches suffered chiefly in twelve cases (twice on both sides; ten times on one side—seven times the right, three times the left; three times in connexion with other places). It is remarkable, also, that the region of the sella turcica is most liable to tumours. Is this because of a certain widening of the subarachnoid space, which probably during life is often subject to collections of lymph, and along with it to accumulations of the syphilitic virus, which is no doubt chiefly transported through the lymphatic system?

Sex seems to exert no influence; age seems equally irrelevant; and injury does not seem to have played any part in the cases quoted. The author advises that for the future the tendency to neuroses must be carefully gone into.

The symptomatology and therapeutics of the subject, though concisely treated of, call for no special comment from us.

FROM ABROAD.

Infantile Diarrhœa in Berlin.

The *Berliner Klinische Wochenschrift* (February 21 and 28) publishes an interesting paper upon this subject, read by Dr. Baginsky at the Berlin Medical Society. He observes that statistical documents show that deaths from diarrhœa and cholera nostras have more than quadrupled during the last twenty years, no other cause of death having made such a considerable increase. It is an important question whether this arises from unavoidable local and social conditions in Berlin, or whether these are capable of removal. In this calculation cases which have been registered as intestinal catarrh, wasting, etc., are excluded, although a considerable number of them belong to the diarrhœas, and would, if counted, raise the figures considerably. The entire mortality of Berlin from January 1 to October 1 amounted to 24,388 persons; and of these 11,700 (or nearly half) died during the first year; while between the ages of one and four there died 3897. From diarrhœa 5267 died, or 21·5 per cent. of the whole mortality; and of these there died 4692 under one year, or 89 per cent. of all the cases of diarrhœa. The chief mortality took place in June (1383), July (1766), and August (1088).

First considering the meteorological and telluric conditions, the question arises, What has been the influence of the ground- or soil-water? When Dr. Baginsky examined this point in the preceding year, he came to the conclusion that the prevalence of diarrhœa had no connexion with the amount of soil-water present, and the variations this underwent; and the observations made during the present year lead to the same conclusion. In fact, the amount of soil-water begins to diminish in May, and continues to do so rapidly in June and July, when diarrhœa is most prevalent. It is a fallacy, however, to suppose that for Berlin there is any mean height of this soil-water; and in order to draw any satisfactory conclusions, each district must be compared on this point with the mortality observed in it. Dr. Baginsky has, accordingly, minutely examined the districts Nos. 10 and 11—the same description of population inhabiting them both,—and confirms the conclusion of Virchow, that the higher mortality of diarrhœa corresponds with the lower level of the soil-water.

The second phenomenon to be examined is the temperature of the surface of the earth. Pfeiffer first put the question whether diarrhœa might not, like cholera, be dependent upon the excessive heating of the surface of the soil. In the preceding year this decidedly may be denied, for the mortality from the disease diminished precisely at the time when the surface became most rapidly and most durably heated; but this year the same results were not observed. The temperature was taken by a thermometer which was sunk to from half a metre to three metres depth; but, in fact, there is no mean temperature of the soil in Berlin, any more than there is any mean level of soil-water. Still, as far as this mean temperature could be ascertained, it was found to rise in proportion as the mortality from diarrhœa became greater. The temperature of the soil is a consequence of that of the atmosphere, and the mortality from diarrhœa has been observed to constantly augment as the temperature of the air became higher. The amount of moisture in the air is of great importance; and the official returns show that as regards diarrhœa, with from 51 to 60 per cent., or 61 to 70 per cent. of moisture, the mortality was represented by 48, sinking to 34 with 71 to 80 per cent., to 14 with 81 to 90 per cent., and to 6 with 91 to 100 per cent. In 1875, with a great absence of such moisture, the mortality increased.

Thus, among meteorological conditions, the elevated temperature occupies the first line, and the moisture of the atmosphere producing rain the second. All the phenomena adverted to—the sinking of the water-level of the soil, the increase of atmospheric and telluric temperature, and the diminution of the quantity of water in the atmosphere—occur at about one and the same time, the beginning of May; and upon this co-operation, no doubt, their etiological influence is dependent. These, however, are circumstances over which we have no control, and we may turn to what may be termed the social group of causes, especially the condition of dwellings and the food employed. With regard to the first of these, the cellar and underground dwellings have been frequently shown to lead to an increase of mortality. With respect to food, no statistical observations are required to show that children brought up by hand suffer more from disease than those at the breast; but we may inquire in what particulars the maternal feeding differs from the other, and in what the danger of artificial nourishment consists. The differences of woman's and cow's milk have been amply set forth by a great number of chemists, showing the considerably greater quantity of casein in the former. The researches undertaken by Dr. Baginsky himself have related to the effects produced by prolonged exposure to the temperature of the body upon the usual articles of children's food—his object being to ascertain when the factors of putrefaction (bacteria) are produced, when coagulation of the various kinds of milk takes place, and when absolute putrefaction, as testified by the smell, is set up. He experimented upon woman's milk, cow's milk, Swiss milk, and two farinaceous foods much employed. All these were exposed to a continuous temperature of 37° C. All the articles were previously boiled.

After twenty-eight hours' exposure to this temperature the woman's and cow's milk remained almost unchanged; but the Swiss milk, although appearing fresh, and the two artificial foods exhibited bacteria in active motion. The woman's milk was alkaline, the cow's milk slightly acid, and the farinaceous foods were strongly acid. After a further exposure of eighteen hours, the cow's milk and the Swiss milk were coagulated, and the farinaceous foods in a high state of putrefaction; the woman's milk remaining still alkaline, and almost unchanged. The experiments were repeated many times, and always with the same results. They were also varied, and it was found that by careful manipulation and the use of distilled water

these changes might be delayed; but for all practical conclusions the first series of experiments holds good. The pre-eminence of human milk is acknowledged; then comes cow's milk, and then Swiss milk; and only at a far-off distance the farinaceous foods experimented upon can be admitted, not as substitutes, but as mere supplementary substances, which are rendered less mischievous by the addition of milk.

REVIEWS.

The Causes, Symptoms, and Treatment of Burdwan Fever, or the Epidemic Fever of Lower Bengal. By Gopaul Chunder Roy, M.D., F.R.C.S.L. London and Calcutta. 1876. Pp. 168.

To all persons connected with British India in its medical aspects, and, indeed, to all who cultivate medicine in any part of the world, the small volume before us must be deeply interesting, and the more so perhaps because it is written (and written very well) by a native of India who has obtained his medical qualifications in Great Britain, and has carried back to his native country the lessons he has learned in our own land, where sanitary science has made great and important strides. Notwithstanding the wide differences existing between the local conditions of Great Britain and of Europe in general, and the vast continent of Hindostan, yet the principles which regulate the spread of epidemics are essentially the same; and the prevalence of ague or of typhoid fever in temperate latitudes is due to the same causes as those which, though on a much larger scale, devastate the plains of intertropical India, and, in the words of Dr. Chunder Roy, convert countries "that once smiled with peace, health, and prosperity into hotbeds of disease, misery, and death."

It appears that the Burdwan fever—for such is the name of the epidemic fever of Lower Bengal—made its first appearance in 1824, and ever since that time it has spread in various directions along the southern territories, and has become a regular, though most unwelcome, visitor to the populations. Dr. Roy presents us with a graphic and most interesting sketch of the causes which have introduced this fever, or, at least, have favoured its continuance and its propagation; and these are such as might be anticipated by those who are acquainted with the geography of the country and the mode of life of the inhabitants. An immense delta, caused by the numerous streams of the Ganges and other rivers, sometimes laid bare by the heat of the sun, sometimes covered with vast sheets of water brought down from the mountains, and swollen still more by the rains,—such a region necessarily promotes an exuberant vegetation which generates malarious exhalations. Watercourses, often dried up, and often obstructed purposely by the natives, instead of being the natural outlets of sewage, become sources of contamination; while the filthy habits of the population, their aggregation into crowds, their scanty food, their insufficient clothing, their laborious pursuits, their early marriages, and superabundant fecundity, form but a few of the factors which not only render the ravages of fever in Lower Bengal perfectly intelligible, but also make remedial measures almost hopeless. As Dr. Roy remarks, it will be necessary, for the amelioration of the evils, to change the physical aspect of the country and to alter the habits and mode of living of the people, "for as long as the Hindu remains a Hindu, with his peculiar filthy habits always acting in opposition to all sanitary laws, so long will the permanent improvement of the health of the people remain a mere phantom." Dr. Roy has had abundant practical experience in this fever, for he tells us that he and his family have all suffered from it, and he is an Inspecting Medical Officer of the districts attacked. It is so far satisfactory to learn from him that, apparently hopeless as the task of arresting its ravages may seem, yet some steps have been successfully taken in this direction; and he specifies certain regions, which, either by the cleansing effect of well-directed watercourses, by the more elevated position of the houses above the soil, by their superior sanitary conditions, and other similar circumstances, have been comparatively spared the infliction of the scourge.

With reference to the exact nature of the Burdwan fever, Dr. Roy considers it to be different from typhus or typhoid, and to be identical with endemic malarious fever, only being more intense and more generally diffused. He admits his inability exactly to define the term "malaria," but agrees with those who believe it to be "an accompaniment or emanation of a moist condition of soil, whether in a tropical climate, or in the temperate localities of the Pontine Marshes, or those of Holland, Lincolnshire, or Essex." He ascribes the existence of malaria to heat, moisture, and vegetable decomposition and denies its production by simple warmth and dampness of air, and he gives a number of figures showing the relative prevalence of the fever at different periods of the year when the morbific causes were more or less prevalent.

With regard to the treatment, unsatisfactory as it is, Dr. Roy gives the preference to quinine over any other remedy. In all cases of intermittent fever he gives a single large dose of the alkaloid three or four hours before the expected paroxysm, and after the fever has ceased the remedy should be repeatedly given in small doses, especially when the threatening symptoms again begin to show themselves. Arsenic, which has long been in vogue as a febrifuge among the natives, is sometimes used still as a substitute for quinine, though, strangely enough, white arsenic is preferred by them to the liquor arsenicalis. But it is far inferior in efficacy to the cinchona alkaloid, and it causes unpleasant effects which are not produced by quinine, so that the native patients fall off from the dispensaries if arsenic is largely prescribed.

Essai sur la Résection du Genou. (*On Resection of the Knee.*) Par le Dr. Albert Picard. Paris, 1875.

Dr. Picard commences his essay by pointing out the extreme rarity of excisions of the knee in France, and then proceeds to give the results of his investigations into the subject, made chiefly during a recent visit to England, and to advocate a more extended use of the operation in his own country. He divides the essay into three parts. In the first, the results of the operation are given, and compared, as far as possible, with other methods of treatment; also, the general and local conditions are mentioned which make the operation necessary or desirable. In the second part, the operation is described, as well as the most successful methods of dressing the wound. And in the third section, other plans of operating, and treating the case subsequently, are given; together with some statistics of resection and amputation, and a record of several cases.

In speaking of the mortality after resection of the knee, Dr. Picard shows that it has gradually diminished, and he places it now at about 19 per cent. in the London hospitals, and about 10 per cent. in provincial hospitals. This diminution is attributed by the author chiefly to the more general adoption of antiseptic dressings, and to the earlier performance of the operation. We think, however, that he has formed too favourable an opinion of the mortality, the diminution in which we believe to be chiefly due to the selection of proper cases, which is made more easy by every year's experience. We are quite ready to believe, however, that the use of the antiseptic method of dressing may lead to a still further reduction.

The author very properly points out the difficulty of making any comparison between cases of amputation and of resection, the two operations being applied to quite different kinds and stages of disease, and under quite different conditions; but he asserts, in spite of what has been urged to the contrary, that resection is a less grave operation than amputation. We quite agree with the author's estimate of the unsatisfactory results of the ordinary treatment of a large number of the cases of chronic disease of the knee-joint, and we do not doubt the advantage of the bony anchylosis obtained by resection, over the fibrous union more often resulting from simple incision of the joint. Neither are we at all inclined to differ from those who assert their preference for a limb of flesh and bone, to one of wood; but we think that statistics of the success of such an operation as excision of the knee, are of but little value on account of the great difficulty of ascertaining the ultimate usefulness of the limb; and we are still of opinion that excision is a graver operation than amputation. We should be sorry, however, to be taken for opponents of the operation, which we regard as most admirable in properly selected cases; and we should be glad to see our neighbours in France practising it more frequently, for we cannot but suppose, with Dr. Picard, that many limbs now amputated by French surgeons might be saved by excision of the knee-joint.

The next meeting of the Yorkshire Association of Medical Officers of Health will be held at the Corn Exchange, Leeds, on Wednesday, April 26, at 3 p.m., when papers are promised by Dr. Deville, "On a Proposal from the Social Science Association for Amendment of the Health Acts, having special reference thereto to Watering-Places"; and from Dr. Parsons on "Rural Water-Supply."

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, MARCH 18.

Dr. BUCHANAN, President, in the Chair.

THE minutes of the preceding meeting having been read and confirmed, Dr. Wynter Blyth was balloted for and elected an extra-metropolitan member.

Dr. DUDFIELD directed the attention of the members to a report recently issued by the Aylesbury Dairy Company, as the result of an investigation upon the relative milk-forming properties of different foods. These experiments tended to prove that porter-grains and distillers' wash diminish the fatty constituents of the milk. That further experiments may be made on this important subject, the Company offer to place their sheds at the disposal of the Society, to test the relative value of different foods in the formation of milk. Ale-grains do not appear to have such a deleterious effect in diminishing the quantity of cream in milk. This proposal was referred to the Council for consideration.

Dr. ARMSTRONG, from the Northern Counties Association, memorialised the Society with reference to the desirability of closing schools during the prevalence of severe epidemics of scarlet fever. It was generally considered that this would be rather too severe a measure for general adoption.

The proposed by-laws for the regulation of cow-sheds were brought up from the Council, but postponed till the next meeting for special consideration.

Dr. MEYMOTT TIDY, Medical Officer of Health for Islington, then read a paper on Metropolitan Scavenging, of which the following is an abstract:—Islington is a parish of no mean extent, containing about 237,000 inhabitants and 29,000 inhabited houses. The removal of dust, ashes, rubbish, ice, snow, filth, etc., is provided for by the 125th section of the Metropolis Local Management Act. This is the statutory obligation laid on the local authority, either to contract with persons to do the scavenging, or the alternative, to do it themselves: the first is that most ordinarily adopted. Times change, and this is specially noticeable in dusting contracts. Up to 1869 the contractors paid the local authority for the privilege of being permitted to remove the dust of the parish. To allow the dust to be taken away other than by the contractor's dust-cart was an act of theft, and the contractor took speedy steps to prevent what he would have regarded as a robbery; for he bought the dust, and he considered he had as much right to it as to any other saleable commodity that he chose to purchase. Complaints of the non-removal of dust were very rare, and the inhabitants were well served. In 1869 "a change came o'er the spirit of my dream." Dust ceased to be a valuable commodity; and so, instead of the contractor paying the vestry for the privilege of removing the dust, the contractor demanded payment from the vestry. The idea of a "golden dustman" was no mere creation of the novel-writer. The "mound of dust" was then little less than an "auriferous deposit." But all these things have ceased to be. In 1875, the large sum of £4474 was paid the contractors for dusting the parish. Now, the more dust the contractor is made to remove, so much the worse for him. In short, dust has become a drug in the market. Not only can the contractors make nothing out of it, but every load costs them 8d. or more to get rid of after it is collected. The dustman increases the stingy allowance paid him by the dust contractor, by the practice of "totting." The dustman carries behind the carts certain bags. Into these bags all the saleable refuse—the rags, the bones, the bottles, and any other little articles that the female domestic has, with the usual carefulness and thoughtfulness of her class, deposited in the dust-bin—find their way. All this takes time that ought to be given to dust-collecting. In the old days the men were fined for "totting," but now the contractor does not mind it, because he is the gainer by the loss of time. The contractors did as little as they could, and the authorities were deluged with complaints. In the twelve months ending March 25, 1875, 20,781 complaints of non-removal were made at the office of the Islington Vestry. The matter was getting serious. A stringent contract was made with the contractor, by which he was subject to fines by the vestry for non-removal on the receipt of an order from the vestry. A special inspector of dust was appointed in 1871 to hunt out the contractor's sins of omission, whilst the Sanitary Committee authorised the distribution of "D" cards for the ornamentation of windows, which cards the contractors were bound under penalties to attend to, and the exhibition of which the sanitary inspectors were ordered to report to the office at the end of their day's work, so far as such exhibitions had fallen within their notice. For the twelve months ending March 25, 1875, 16,345 cases of dust neglect have been reported by the sanitary inspectors, in addition to the complaints made to the office. At the end of each day the contractor receives a list of the places from which dust is required to be removed. If second complaints are made—that is, if these first complaints are not attended to,—the Sanitary Committee hear evidence, first from the contractor, as to the excuse he has to offer why the dust was not removed; and then from their dust inspector, whose duty it is to make full inquiries at the house as to the alleged neglect. If they are convinced the contractor is in the wrong, he is fined 40s.,—and the list of fines subtracted every quarter from the contract price is not inconsiderable. And now see the result of all this. The contractor receives a list of complaints each day. That list constitutes his next day's work. At any rate, these complaints must be attended to, for non-attendance to them means the chance of a 40s. fine. But the list from the office alone is all the men employed by the contractor can do; and so the dusting of the parish became little else than attending to the vestry orders. One thing was certain, that the system of contracting with persons to do the work was a failure. One of the contractors said to me, "It pays better to be fined than to find machinery to do the work." The cases of neglect that came before them, the Committee felt, were, after all, simply exceptional cases, for the public would not take much trouble in the matter, although they felt aggrieved; whilst a still larger body deemed a huge dustheap anything but a hardship or sanitary nuisance. Again, this infliction of fines year by year drives up the price of the contract. After a heavy night of fining, one of the contractors said, "You will get the worst of this next contract-day." He was not far wrong. The contract price is well regulated, for the contractors are an exclusive body, and arrange amongst themselves their prices, and what work they respectively desire to undertake. The contractors may be sinners, but the public are not saints. With some the habit of keeping the dust till the last is so inveterate that they disregard every appeal until the very consummation of discomfort and annoyance has been reached, for nothing else will be allowed to disturb them. It is not unusual to find that those people who are stung by the consequences of their own negligence are those who make the most grievous and exaggerated complaints. The Islington Vestry in 1875 woke up to the fact that some change must be made, the symptoms becoming gradually aggravated rather than relieved by time. The system of contracting for a fixed sum for work over which it is absolutely impossible to exercise full and complete control was bad in principle. It is true most of the vestries and district boards adhere to it, though all seem alive to the vexatious nature of the circumstances accompanying it. All agreed that if the contract system was in any form continued, the amount paid should be dependent on the removal of ascertained quantities of dust. The vestry felt that efficiency and economy in this matter were hopeless, and they determined to do the dusting of a quarter of the parish as an experiment entirely as their own work, purchasing carts and horses, and engaging men for the purpose. The first thing was the purchase of a wharf on the canal at a rental of £200 per annum for twenty-one years, it being also a part of the agreement that the canal dues after the first year on freights should amount to another £200, or the sum otherwise made up. Stabling for twelve horses was erected, with rooms for the horsekeeper, and such outhouses as were necessary for the work, at a cost of £1500. Twelve horses and twelve carts were purchased at an average cost of £24 per cart and £83 per horse. On an average five dustcarts work daily, two men being appointed to each cart. Each man is paid at the rate of 20s. per week. He is allowed to receive gratuities (for he would take them whether he was allowed them or not), but "totting" is absolutely forbidden. A superintendent of the dustmen has been appointed, at a salary of £150 per annum, whose duty it is to see that the men are not idling their time, or working one part of the district where they are fee'd, to the exclusion of the "dead pieces" where they are not fee'd. I am not clear that this was a successful piece of work, as the

man himself needs another to look after him. At the wharf a clerk is kept, at a salary of £1 per week, whose duty it is to act as storekeeper at the wharf, to keep a record of all the dust brought in, and generally to give the men orders as to where the dust is required to be removed. A horsekeeper at 25s. a week with apartments in the wharf, with an assistant at 21s. a week, superintend the stabling arrangements, but each dustman is required to clean his own horse as he brings it in at night. The men begin work at 6 a.m. As each load comes on to the wharf the clerk marks it down. It is then sifted on the wharf, which acts as a shoot. The sifting is contracted for by "the hillman," as he is technically called, who agrees to do it for 1s. per load. For this he supplies the women to do the sifting work, and is responsible in every particular of this department. The "fine ashes," which are used for mixing with the clay for brick-making, fetch about £1 per freight of fifty tons, the Vestry paying about 15s. for the loading of the barge. The "breeze," that is, the large cinders, fetches about £3 per freight of fifty tons. This is used for brick-burning. The "soft core," that is, the organic matter, is mixed with the dung from the stables and the dry sweepings from the roads (this is called "a mixture"), and sometimes fetches, if the mixture be good, £1 per freight, whilst at other times the vestry have to pay £1, £2, or £3 to get rid of it. After a few months' trial, the committee to whom the work was entrusted determined to enlarge their sphere of action, and to undertake the dusting of about one-third of the parish, convinced that their existing plant was sufficient to warrant them in doing so. The vestry set to work resolutely, and, I believe, are in a fair way to begin work on the 25th, when the existing contracts expire. The system they have adopted for dusting this part of the parish is as follows:—They have contracted for twenty carts and horses at so much a cart. They will employ their own men, either two men to each cart, or three men to two carts. The Great Northern Railway Company have arranged to let them a piece of ground adjoining their line as a shoot, and have placed a siding so as to remove the dust as required with the least trouble. An inspector of the dustmen has been appointed at £3 per week. His duty will be to see that the men are doing their duty. My own view is shortly this—pay by the work done; let your money be spent on results. Some such system as this:—Contract that the dust shall be removed at so much a load of three cubic yards, the contractor finding carts, horses, baskets, ladders, shovels, and one man for each cart. The local authority should then provide a certain number of dustmen, in the proportion of one man to every two carts, to assist the contractor's men in their filling, and to direct and control their movements in accordance with such instructions as they may receive from time to time. The men in the direct employ of the local authority should have no interest in the number of loads of dust removed, but should be paid by the day, and be held responsible that no "totting" goes on (for totting means waste of time); but in the matter of gratuities they should be allowed to share with the other men. The local authority should have a responsible and well-paid servant to keep note of the loads delivered, and to see that they are of full quantity. This in some respects perpetuates the system of contract, but it modifies it in this point: that payments depend on work actually done. The representatives of the rate-payers must not expect to do the dusting cheaper than the contractors; nay, they must be prepared for an increased annual outlay. But then the work will be done; the contractors get pay, and do nothing. The efficient removal of the dust is a matter of vast importance in its bearing upon the public health. Dr. Tidy advocated the daily removal of dust and refuse from every house, and, as a sequence, the ultimate and entire abolition of every dust-bin. Till this is effected, medical men must be ever agitating the dust question. We may daily witness injurious emanations arising from the overloaded dust-bin, assisting to poison the atmosphere of the too often close and crowded dwellings and sleeping-places of the rich as well as the poor. The dust-bin is a nuisance, and a nuisance of such a character that I marvel it was ever established by law. A metal pail, or a box lined with zinc, of such a size that it can be conveniently carried out and placed every morning, with the previous day's refuse in it, upon the pavement or at the gate of the premises, to be emptied into the dust-cart before eight o'clock in the morning, is what some day we must come to. That every householder should burn the organic refuse of his house is a matter of some difficulty, for the smell such cremation produces is not pleasant. I am convinced it will be the most difficult reform, for this reason: that it would require a few minutes' attention daily on the part of the public themselves,—and that is next to impossible to get. Such education needs a School Board special and distinctive. It is absolutely marvellous, the tenacity with which some men stick to their dust. A good large dust-bin is the most enduring of friends, except occasionally in the summer-time, when the heat tries it beyond all endurance. It hides waste; it records no breakages; it accounts for all bones; it saves worlds of trouble; and it waits with uncomplaining waiting. True, it goes on waiting until at last the lid won't shut, and certain definite symptoms betoken that its capacity has been too far taxed. Suddenly it occurs to somebody or another that they are badly used by somebody or another. The vestry is appealed to, the officers of the sanitary department are roundly abused. At last, from fear of a 40s. fine, the dust contractor removes the contents of the disabled dust-bin. All annoyance is over, and the whole thing is forgotten until the next time! Verily, "a dust-bin covers a multitude of sins." No scavenger can be required to remove the refuse of trade, manufacture, or business, or any building materials. If there be any question between scavenger and householder as to what is trade refuse, it is to be finally decided by two justices, or one stipendiary (who is regarded as equal to two justices). The exhausted hops and malt of breweries and such-like, for example, are trade refuse. But most often discussion has turned on such things as clinkers; and as only lately, in the case of one of the largest breweries in the world (Truman and Hanbury), owing to differences of opinion amongst magistrates and the refusal of the scavenger to remove them, the matter has been referred to me in order that a case may be stated for a superior court, I will give the Society briefly a summary of my report. The Act states that the scavenger must remove all dust, ashes, and rubbish. 1. Are clinkers to be regarded chemically as ashes? 2. Are clinkers to be comprehended under the term "ashes," as employed in the Metropolis Local Management Act? I collected from the brewery furnace a sample of the coal used, some ashes, and a piece of clinker, and examined them, with the following results:—

		Coal.	Coal ashes.	Clinkers.
Organic matter		91·5	67·0	0·0
Ash acted on with boiling water	insoluble, per cent.	7·0	29·0	97·0
	soluble, „	93·0	71·0	3·0
Ash acted on with nitro-hydrochloric acid	insoluble, per cent.	3·0	17·0	58·0
	soluble, „	97·0	83·0	42·0

Considering that, at the time the Metropolis Local Management Act was passed, the Legislature was familiar with the fact that furnaces were being everywhere used throughout London in the carrying on of various trades and businesses that must of necessity produce clinkers; further, that the dust contractors, when the ashes were valuable, never questioned their right to the clinkers as well as to the other parts of the unburnt coal, and that the question was not raised until such remains became a drug on the market; further, that from a scientific point of view the clinker is a true ash, merely differing from what are popularly called ashes by being more completely burnt and the heat sufficiently intense to effect its fusion,—it seems to me that clinkers are comprehended under the term ashes, regarding it with scientific precision, and that such an interpretation of the said clause was intended by the Legislature, or otherwise clinkers would have been specially excepted. Clinkers, formerly, were specially valuable for road-making, and admirable road material they form; but when road-making in London almost came to an end, of course much of the demand for clinkers ceased; and hence they, too, have become part of the general drug.

In the discussion which followed, Dr. Buchanan desired that Dr. Tidy should have given the conditions of dust nuisance directly causative of disease, rather than enlarging upon the nuisance itself. It is certainly a miserable experience, that, without developing sanitary precautions in every direction, there should be this block. The daily removal of dust is undoubtedly simpler and better, and officers of health will doubtless ultimately have to urge this upon their vestries.

Dr. Iliff, Medical Officer of Health for the Parish of Newington, detailed the plan adopted by the vestry for the removal of dust, which had been found most satisfactory. A siding had been made in connexion with the London, Chatham, and Dover Railway, and all refuse was conveyed twenty miles down the line and sold to the farmers in the neighbourhood of Bickley. Upwards of 20,000 tons, including manure,

were so disposed of in 1875. The Vestry had taken the matter in hand for three or four years, and there had been scarcely any complaints since.

Dr. Liddle had found the system of fining the contractors perfectly useless, because the contract price was increased proportionately. He had always advocated the emptying of public dust-bins daily, but private dust-bins less frequently. People should not be allowed to annoy their neighbours by keeping decomposing refuse in dust-bins.

Dr. Bernays thought that if vegetable refuse was kept out of dust-bins they need not be emptied more than once a week. He had successfully advocated the plan of trimming vegetables before beings upplied by the greengrocer, thus enabling much unnecessary nuisance to be saved. Care should be taken to have the bottom of the bins properly cleaned out each time, as the fluid refuse settles there.

Mr. Wynter Blyth objected to the daily removal of dust, especially in crowded parts where several families live in one house. The pile of dust-boxes would be a great obstruction to the thoroughfare and dangerous to traffic.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 28.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

On some of the Histological Changes found in Cancer of the Skin or Epithelioma, with special reference to the Source of the Newly Formed Epithelial Cells.

A paper, by Dr. G. Thin, was read on the above subject, of which the following is an abstract:—The epithelial growth in cancer of the skin is constituted by an extension of the epithelium which normally forms the rete Malpighii, the sweat-glands, and the sebaceous follicles, and does not take its origin exclusively in the lymphatic vessels, as has been alleged by Köster, and latterly by Rajewsky. As new epithelial cells form, those in the centre of epithelial masses or on the outer surface of the rete undergo several kinds of degeneration. The two chief forms of this degenerative process are the horny and the colloid. In the former, the cells elongate, flatten, become horny, and finally resemble pieces of membrane; in the latter, they swell, and acquire an even, glassy appearance. A laminated capsule is frequently formed by several of these swollen vitreous-looking cells, which are encircled by the flattened horny ones. In both forms, the cells finally disintegrate in their original position. They are not found as cellular elements in the underlying tissue. The nuclei undergo changes corresponding to those of the cells. The nucleus generally withers or falls out; it never divides. The nucleolus frequently enlarges, and acquires a colour not unlike that of a red blood-corpuscle. It is, then, a prominent and resistant object, and has undergone a change by which it is assimilated to horny structures. Instead of one large nucleolus in the centre of the nuclear vacuole, there are sometimes two or four smaller nucleoli, which appear to be fragments of a large nucleolus. The cells never divide, nor produce endogenous progeny, nor give origin in any other way to new cells. No vital process is in any way connected with the changes which they undergo. The fibrillary tissue yields to a process of absorption, which begins at an early stage, and is independent of the epithelial formation. The absorption is divisible into two stages—in the first, the bundles retain their form, although the substance has, to a considerable extent, disappeared, thin membranous lines indicating the boundaries of each bundle; in the second, the outlines of the bundles are lost, and the tissue is represented by irregular shreds. In osmic acid preparations, large oval nuclei, faintly marked, are seen on the bundles. These are believed to be the nuclei of flat cells, and their resistance to the solution is supposed to be produced by a change which is duo to the cancer. Stellate and spindle cells can be seen in the corium and amongst the cancerous epithelium. Their cell protoplasm is frequently found in a state of fatty degeneration. In favourable preparations, the nature of the cells is shown by long thread-like processes which proceed from them. Passing from the epithelium inwards, there is an abundant infiltration of cells. Where the fibrillary tissue is broken down, these are found in masses. These masses are continuous with rows of cells that pass between the bundles. Single rows of cells are often found between unaltered bundles and where the tissue is otherwise healthy. The cells nearest the epithelium are larger than those more distant from it, and have a nucleus and a form that indicates a change towards the fully developed epithelial character. Gradual transitions connect these with the more distant cells, which finally are indistinguishable from colourless blood-corpuscles. It is maintained that they are colourless blood-corpuscles because they are identical with them in appearance, and because they do not proceed from the epithelium or the cells of the tissue, and because the vessels in the part are found to contain a number of similar corpuscles. The epithelial growth takes place by simple apposition of these lymph cells to the pre-existing epithelium, and by the spaces left by the degeneration of old cells being occupied by the new ones which fix themselves in the position. The nature of the agent by which these changes are produced is unknown. It evidently passes from the diseased part along the lymph spaces, and a cell once infected by it becomes an active agent in conveying the infection to the next cell in contact with it, and so on successively. It becomes weaker the farther it travels. As the products from the bloodvessels do not organise, and as the wound resulting from an operation in the part heals well, it follows that the *materies morbi* is localised. On the other hand, as cancer is not inoculable to a healthy person, it is argued that the disease progresses by help of diminished power of resistance in the constitutional condition of the patient. The preparations on which these views have been more especially founded were obtained from cases of cancer of the lip in females operated on by Mr. Bell, of Edinburgh. They were taken from sections of the tumours, which had been put fresh in solution of osmic acid. The author attributes special weight to this mode of preparation, and believes that it presents advantages over any other method at present known to us. Dr. Thin expressed his thanks to Dr. J. Bell, of Edinburgh, for providing him with the specimens for examination.

The President asked as to the history of the case. He had never met with an epithelioma of the lip in a female.

Dr. Thin said the case had been reported among six others by Dr. Joseph Bell, of Edinburgh. In all of these cases the women had been accustomed to smoke short pipes, and to this Dr. Bell attributed the origin of the disease.

Dr. Drysdale asked if it was possible to diagnose a hard chancre from a cancer of the lip. In a doubtful case he had seen, there was enlargement of the glands at the angle of the jaw.

Dr. J. Harley had seen Dr. Thin's specimens, and quite agreed with his description of them. The new growth seemed to be derived from lymph corpuscles.

Mr. Hulke thought it hardly possible to criticise the paper, but there were certain difficulties in the way of accepting the views propounded in it. He did not think the identity of the new products with white blood-corpuscles easily accounted for. In ichthyosis of the tongue we find a simple overgrowth of epithelium going on for years, but all of these cases terminate in cancer. In this, however, there is a decided change of relationship, for we find in it a downgrowth of the epithelium where it ought not to have been. In papilloma similar phenomena were observable. A wart might long remain a wart, and after a time it would propagate downwards, ending in an epithelial cancer. He was disposed to trace epithelial cells to an epithelial source. In cancer of the breast the cancer seemed to originate in the true gland-cells, not in the connective tissue.

Mr. Butlin said that in epithelioma and papilloma he had seen round cells in the connective tissue similar to white blood-corpuscles, but they were not traceable to the blood. In a recent specimen the cells were apparently in a state of growth approaching division. The division itself it would not be easy to see. Cell-nests were to be found in papilloma as well as in epithelioma. It was hardly possible, therefore, that they could originate in gland epithelium. For his own part, he was loth to accept Dr. Thin's view.

Dr. Thin, in reply, said that in his opinion the method of preparation—that, viz., by osmic acid—was most important. His views were entirely founded on these specimens.

A Conference on the Health of Towns, Sewage, etc., will be held at the Rooms of the Society of Arts on May 9 and the following day. A Sanitary Conference will follow these meetings, and will be held by the British Medical and Social Science Association in the same place.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 10th inst., and when eligible will be admitted to the pass examination:—

Clark, James R. A., student of University College.
Dymott, Donald F., of University College.
Fox, Joseph T., of the London Hospital.
Groome, William W., of St. Thomas's Hospital.
Haslam, William F., of St. Thomas's Hospital.
Hinde, Alfred, of University College.
Jackson, Arthur, of St. Bartholomew's Hospital.
Leahy, Albert D., of the Charing-cross Hospital.
Oxley, Alfred J. R., of the London Hospital.
Pearse, Thomas F., of the Middlesex Hospital.
Robinson, Frederick, of the Leeds School.
Smith, Charles R., of St. Bartholomew's Hospital.
Smith, Kenneth R., of University College.
Treadgot, Frederick C. A., of the Manchester School.
Williams, David J., of University College.
Williams, Miles M., of the Manchester School.
Webb, William W., of the Charing-cross Hospital.

Thirty candidates out of the 159 examined having failed to acquit themselves to the satisfaction of the Board, were referred to their anatomical and physiological studies for three months.

The pass examination for the diploma of membership will be commenced this day (Thursday).

Arts Examinations.

At the recent half-yearly examination in Arts, etc., of candidates for the diplomas of Fellowship and Membership of the College, the following gentlemen passed for the first-named distinction:—

Messrs. Anthony Baily, Alfred G. Barrs, Charles R. Bartlett, William H. Battle, Charles J. Bond, Leopold Burroughs, Harold W. Edis, George A. Hamerton, Walter C. Hearnden, William F. Hearnden, John J. Heckling, F. E. C. Houghton, Albert E. Kirby, Frederick Leigh, Stephen M. Lumsden, Y. F. G. Moore, J. L. B. Oakley, Edward Phillips, John R. Rolston, Charles F. Rumboll, Patrick C. Scott, James E. Taylor, Arthur F. Thomas, Julius R. Tillstone, Charles Tweedy, S. Westcott, Charles A. Webb, Arthur G. Wood, and Sandford S. Lessey.

The following gentlemen passed for Membership, viz.:—

Messrs. Henry E. Archer, Frederick W. Alexander, Frederick R. Anness, Alfred Barber, George Bower, James B. Brewitt, Charles N. Bunn, F. E. A. Bush, A. H. W. Clemow, Leslie R. Colledge, John F. Coope, Archer P. Crouch, David Davis, Thomas H. Davison, William A. Day, Francis T. Eagleton, Charles F. Eddoes, Edward Ellis, Horace P. Everard, Frederick W. Farr, W. J. H. Fletcher, Alfred Gelebian, Charles W. Glassington, William A. Gosford, Alfred W. Greenleaf, John H. Gwynne, John Hanson, Henry J. Harries, Ernest A. Hyrons, John Jones, Norman H. Lawrence, G. L. L. Lawson, Duncan McArthur, Herbert A. McDougall, Arthur E. Mason, Charles B. Mason, H. T. D. Medley, Thomas R. Morse, William J. Nicholls, Alfred E. Odling, John M. Owen, Thomas M. Parr, Henry P. Peat, Alfred G. Perkins, Robert Price, William Renner, Edward James Sheppard, Herbert E. Sieveking, Ernest Snell, Marshall Southerst, Edward H. Squire, William S. Stabb, Edwin A. Starling, William E. Starling, William Steer, Thomas P. Taylor, David Thomas, Charles A. Thorne, William H. Turner, Edwin B. Vantier, Alfred O. Wallace, George Welch, Alfred F. Whitwell, Thomas C. Willders, C. H. C. Woodhead, Arthur E. Boot, Malcolm Cowan, and C. A. L. H. Von Ramdshr.

The next examination will take place at Michaelmas, instead of Christmas as heretofore.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 6:—

Bradford, Cordley, Ashted House, Birmingham.
Cuthbert, Wm. Wood, Mendlesham, Suffolk.
Davey, Wm. Thomas, Leyton, Essex.
Gay, Chas. Wm. Ebenczer, St. Alban's.
Gibson, Henry Christopher Mends, Ilchester, Somerset.
Hamp, John Walton, Wolverhampton.
Hyne, Fredk. Alexander, South-square, Gray's-inn, W.C.
Perkins, Edward Benjamin Steele, Exeter.
Strover, Walter, St. Helen's, Jersey.
Webb, Wm. Henry, Claremont-square, Pentonville.
Whittle, Ewing Mould Glynn, Liverpool.

The following gentlemen also on the same day passed their primary professional examination:—

Cureton, Edward, Queen's College, Birmingham.
Goodsell, Fredk. Walton Wm., St. Bartholomew's Hospital.
Hughes, David Arthur, St. Bartholomew's Hospital.
Vinrace, John Hinks, Queen's College, Birmingham.

APPOINTMENTS.

SAUNDBY, ROBERT, M.B., M.R.C.S.—Resident Registrar and Pathologist to the General Hospital, Birmingham, *vice* Philip Bindley, M.B., resigned.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—Fleet-Surgeon Charles McShane has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of March 5, 1876.

BIRTHS.

BENNETT.—On April 18, at 53, Upper Berkeley-street, Portman-square, the wife of Dr. H. Selee Bennett, of a daughter.

BUTTER.—On April 7, at Lodway, near Bristol, the wife of G. Bleeck Butter, F.R.C.S. Edin., of a daughter.

CRONIN.—On April 7, at Old Manor House, Clapham-common, the wife of Dr. Eugene F. Cronin, of a son.

PHIBBS.—On April 8, at 59, Boundary-road, N.W., the wife of Robert Featherstone Phibbs, L.R.C.P., M.R.C.S., of a son.

TEEVAN.—On March 31, at 10, Portman-square, the wife of W. F. Teevan, F.R.C.S., of a son.

MUTER.—On April 4, at Winchester House, Kennington, the wife of Dr. Muter, of a son.

WHEELER.—On April 6, at 1, Portland-place, Clapton, the wife of H. Wheeler, Esq., physician and surgeon, of a son.

MARRIAGES.

ATHERSTONE—GIRDLESTONE.—On February 14, at St. George's Cathedral, Grahamstown, Cape of Good Hope, Edwin Atherstone, M.B., son of the late John Atherstone, M.D., of Table Farm, near Grahamstown, to Armine Horatia Josephine, eldest daughter of Nelson Girdlestone, Esq., late of the Admiralty, Whitehall.

COOMBE—PILKINGTON.—On April 6, at St. Andrew's Church, Southport, George A. Coombe, M.R.C.S. Eng., L.S.A., second son of R. G Coombe, Esq., of Burnham, Essex, to Mary Elizabeth, only daughter of James Pilkington, Esq., of Park-place House, Blackburn, and Swinithwaite Hall, Bedale, Yorkshire.

IRVING—WATKINSON.—On April 5, at Holy Trinity Church, Huddersfield, John Irving, M.B., C.M., to Fanny, eldest daughter of the late James Watkinson, Esq., Beechwood, Huddersfield.

LEIGHTON—WRIGHT.—On March 6, at the parish church, Wakefield, Robert Leighton Leighton, M.A., to Mary Elizabeth, daughter of T. G. Wright, M.D., of Wakefield.

LITTLE—MCKENZIE.—On April 6, at Ridge, Herts, Charles Edward Little, M.R.C.S., of Shenley, Herts, third son of Harry Little, of West Winch, Norfolk, to Isabella, only daughter of the late Alexander McKenzie, of Rabley-park, Ridge.

PARKER—COAKLEY.—On April 8, at St. Saviour's, Paddington, Charles Gunning Parker, F.R.C.S., of Shrivenham, Berks, to Eliza, widow of Thomas John Coakley, late of New Bond-street, W.

SCOTT.—HOPGOOD.—On April 4, at Upton Old Church, Slough, John Henry, second son of John Scott, F.R.C.S., of Harley-street, Cavendish-square, to Jane Govett, second daughter of Joseph Hopgood, M.R.C.S., of Clifton Grove, Slough, Bucks.

DEATHS.

BURNEY, ELIZABETH LOUISA, eldest daughter of the late Dr. Burney, of Gosport, Hants, on March 5, at her residence, Berners-street, Oxford-street, aged 79.

HEMINGWAY, HARRIET, wife of Edward Vavasour Hemingway, M.R.C.S., on April 3, at Steeple Aston, Oxfordshire, aged 52.

HIGGINBOTTOM, JOHN, F.R.S., surgeon, on April 7, at St. Alban's Villas, Gill-street, Nottingham, in his 88th year.

HILLS, ELIZA, daughter of James Twycross, Esq., of Wokingham, and wife of George Hills, M.D., F.R.C.S. Eng., on April 7, at Lavender-hill, S.W.

MACFARLAN, MARY ANN, widow of Donald Macfarlan, M.D., on April 6, at The Woodlands, Darlington, in her 72nd year.

TAYLOR, JAMES EASTWOOD, surgeon, on April 8, at Whitworth, near Rochdale, in his 54th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeons (five in number). Candidates must be registered, and possess both a medical and surgical qualification. Applications, with original testimonials and certificates of registration, to Alex. Forrest, Secretary, on or before April 19.

COUNTY LUNATIC ASYLUM, SNENTON, NOTTINGHAM.—Assistant Medical Officer. Must be unmarried, and be registered under the Medical Act. Applications, with testimonials, to the Chairman of the Committee of Visitors, under cover to Kemp Sanby, Clerk.

EPPING UNION.—Medical Officer. Salary (exclusive of extra payment for surgical operations, quinine, leeches, trusses, midwifery, and vaccination) £119 per annum. Applications to John Windus, Clerk to the Board, by or before April 20.

ESSEX LUNATIC ASYLUM.—Second Assistant Medical Officer and Dispenser. Must be duly qualified to practise as a surgeon and apothecary, and single. Applications to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood, Essex.

ISLAND OF LEWS, SCOTLAND.—Medical Officer for the Parish of Uig. Applications, with testimonials, to Walter Rose, Inspector of Poor, Stornoway, N.B.

KING'S COLLEGE HOSPITAL.—Assistant-Surgeon. For particulars apply to J. W. Cunningham, Secretary.

METROPOLITAN FREE HOSPITAL.—Honorary Surgeon. Candidates must be Fellows of the Royal College of Surgeons, or pledged to become such within twelve months from the date of election. Applications, with testimonials, to the Committee, Commercial-street, Spitalfields, E., on or before April 15.

MIDDLESEX HOSPITAL.—Physician. Applications to the Weekly Board before twelve o'clock noon, on any Tuesday until further notice.

ST. THOMAS'S HOSPITAL.—Assistant-Surgeon and Apothecary. Applications and testimonials to the Treasurer, Counting-house, Westminster-bridge.

WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—House-Surgeon. Properly qualified. Applications, with testimonials, to the Secretary of the Hospital, Leamington, on or before April 26.

ATTEMPTED PERSONATION AT EXAMINATIONS.—T. Boiron has just been tried at the assizes with one Coure, an *employé* of the Ville-de-Paris, who had obtained for his accomplice a false certificate in order to obtain inscription at the Faculty of Montpelier, and enable him to pass the examinations in place of one Crespin, who has fled to Spain. Boiron and Coure were both found guilty, the former being condemned to five years' penal servitude, and the latter to five years' imprisonment.—*Gaz. Hebd.*, April 7.

THE death of Mr. J. Higginbottom, of Nottingham, is announced, at the advanced age of eighty-eight. The deceased had been a Member of the Royal College of Surgeons of England since 1818, and in 1844 was elected to the Fellowship. He was also a Fellow of the Royal Society, and was formerly well known in the profession as an enthusiastic advocate of nitrate of silver in the treatment of inflammation, wounds, and ulcers. He also contributed various able papers to the *Philosophical Transactions*, the *Lancet*, and *British Medical Journal*.

DEATH FROM CHLOROFORM AT THE LYONS MATERNITÉ.—A young woman, twenty-five years of age, who had already borne children, was admitted into the Maternité of the Charité at 3 p.m. on March 23. The pains continued all night, and at about 7 a.m. of the 24th, the liquor amnii having been discharged, it was ascertained that there was a shoulder presentation. In order to effect version, chloroform was administered under the sole direction of the sister entrusted with the service, neither the *chef-de-service* nor the *interne* on duty having been summoned to the case. As after the operation was terminated the patient did not come to, the *interne* was now called, but the patient died ten minutes after his arrival. The reporter justly observes that the death cannot be properly charged to chloroform without its being known what precautions were taken; but, he adds, that such a circumstance should so happen in the first *maternité* of Lyons is indeed as astounding as deplorable.—*Lyon Méd.*, April 9.

OPERATION FOR STRANGULATED HERNIA IN AN INFANT.—Dr. Woodbury relates (*Philadelphia Medical Times*, December 25) what he regards as a unique case. The day after an infant was born it was discovered that the signs of pain and suffering which it exhibited arose from the presence of a hernial tumour in the groin, the size of an orange. Taxis, warm baths, minute opiates, etc., having been tried in vain, and the tumour having increased to the size of the child's head, an operation was performed under ether, forty-five hours after birth. An indirect inguinal hernia was discovered, which had become strangulated at the internal ring. The band causing constriction having been nicked with a probe-pointed bistoury, the gut, which had become purple in colour, was carefully returned. It consisted of the greater part of the small intestine, from near the duodenum to the lower end of the ileum; but there was no omentum. The infant rapidly recovered, without a single bad symptom. He is now (a twelvemonth afterwards) a strong, healthy child, being able to dispense with the truss which he had constantly worn until lately.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

G. W. E.—On inquiry we find he was at last admitted a member of the College, although—

Pluckings sore long time he bore,
Grinders were in vain;
At last, disgusted, he took and "eussed" it,
And didn't try again.

Census.—The first authentic account of the population of Ireland is given by Sir William Petty, in a tract entitled the "Political Anatomy of Ireland." He was employed by Government to superintend the survey and valuation of the forfeited estates instituted during the Protectorate. He says the number of people now (1672) in Ireland is about 1,100,000.

Egypt.—In Egypt, from March till November, the mercury in Fahrenheit's thermometer rises in the shade to 86° or 88°. This being the case in the Delta, the heat is more intense in Upper Egypt, where the earth has little, and in some parts no, vegetable clothing, but abounds in arid sands and burning rocks. In this situation the thermometer never indicates a lower temperature than 50°, and seldom less than 52°, even in the coldest season. Except occasional showers on the coast of the Mediterranean, which happen in the months of December, January, and February, scarcely a drop of rain falls through all the extent of Egypt.

An Unfortunate.—The next Preliminary Examination at the College of Surgeons will take place at Michaelmas, instead of Christmas as heretofore.

Sepulture.—The early Christians protested against the practice of burning the bodies of the dead, and followed the Jewish custom of burying them. In the 4th century an open space near the church was appropriated for the burial of princes and the clergy, which was afterwards made common to all the members of the Church.

Inquirer.—The formation and incorporation of the Royal Society took place in 1662, by Charles II. The French Royal Academy of Sciences (a similar institution) was formed in 1666 by Louis XIV. The Royal Society originated at Oxford, but for more extensive utility its sittings were removed to London.

Physics.—Mistletoe was used in medicine for apoplexy, palsy, and other diseases; and that which grew on the oak was supposed to possess the greatest medicinal virtues, though Culpeper, a quaint old herbalist, says he knows not why, "unless because it is rarest and hardest to come by."

A Former Competitor.—We understand that the Jacksonian Committee will meet in a few days to decide on subjects for the Prize for the ensuing year. The following is the subject for the present year, viz., "The Treatment of Cancer of the Rectum, particularly as regards the Possibility of Curing or Relieving the Patient by Excision of the Affected Part." The essays must be delivered at the College of Surgeons on December 30.

Dens Sap.—In a sale catalogue of autographs there is one from Mrs. Piozzi, perhaps better known as Dr. Johnson's "Mrs. Thrale," in which she advises the Rev. Mr. Davies, concerning Salusbury, her nephew. "Meanwhile, let Parkinson look to his mouth directly, for it is so constructed he shows his teeth every time he speaks, and there *are those* who regard *them* more than the *words*, you know, which will *at any rate* come with a better grace from between two clean rows of fencibles in fair uniform, than from an ill-formed and masked battery of black fascines. Take care of his mouth, therefore, and let nothing odious either go in or come out."

A Tutor and J.F.R.—As all the certificates of having passed the ordeal have been posted to the addresses given by the several candidates, perhaps the non-receipt of your respective cards is owing to an alteration of address, uncommunicated to the Secretary of the College of Surgeons. Write to him.

Dr. M.—Mr. John Whitaker Hulke, the recently elected member of the Board of Examiners at the Royal College of Surgeons, is one of the Surgeons of the Middlesex Hospital; he passed his examination for the Membership of the College on July 16, 1852, and for the Fellowship on May 23, 1857. He, with his father, was in attendance on the illustrious Duke of Wellington in his fatal illness.

Athlete.—Aristotle and Plato considered a State badly organised where gymnastic exercises were not instituted. Colleges, called gymnasia, were established everywhere, and superintended by distinguished masters. Pliny tells us that in early life he made a public profession that he would agree to forfeit all pretensions to the name of a physician should he ever suffer from sickness or die but of old age. He fulfilled his promise, for he lived upwards of a century, and at last was killed by a fall downstairs.

A Recent Examinee.—The following was the distribution of the Board of Examiners of the College of Surgeons when you passed your examination last Monday, viz.:—Messrs. Birkett and Power at table A, Messrs. Holmes and Hulke at table B, Messrs. Holden and Heath at table C, and Messrs. Forster and Wood at table D. Mr. Savory is Chairman of the Board. St. Bartholomew's Hospital is represented by Messrs. Savory, Holden, and Power; Guy's by Messrs. Birkett and Forster; St. George's by Mr. Holmes; the Middlesex by Mr. Hulke; King's College by Mr. Wood; and University College by Mr. Heath.

S. S., Birkenhead.—The inscription in the Chapel of Guy's Hospital is as follows:—"Underneath are deposited the remains of Thomas Guy, citizen of London, member of Parliament, and the sole founder of this Hospital in his lifetime. It is peculiar to this beneficent man to have persevered during a long course of prosperity and industry in pouring forth to the wants of others all that he had earned by labour, or withheld from self-indulgence. Warm with philanthropy, and exalted by charity, his mind expanded to those noble affections which grow but too rarely from the most elevated pursuits. After administering with extensive bounty to the claims of consanguinity, he established this asylum for that stage of languor and disease to which the charity of others had not reached. He provided a retreat for hopeless insanity, and rivalled the endowment of kings. He died on December 27, 1724, in the eightieth year of his age."

Queensland.—Dr. Barton, House-Surgeon to the Brisbane Hospital, and Meteorological Observer to the Queensland Government, writes:—"The climate of this colony is salubrious and very favourable to the European constitution. Persons, particularly, who have arrived at or passed the middle age in the more inhospitable climate of Britain, often have their health and vigour surprisingly renewed in this genial climate. Instances of persons arriving at great age are common, persons nearly or quite 100 years old being not unfrequently met with, and these generally retaining an amount of strength and activity to the last."

Ignoramus.—The Registrar-General's term "Greater London" signifies all those parishes within a radius of fifteen miles from Charing-cross.

R., St. Bartholomew's.—The Council of the College of Surgeons will meet this day (Thursday) to elect an Examiner in Medicine and Examiners in Midwifery: for the former we understand the following gentlemen have been nominated—viz., Drs. Bristowe, Broadbent, Herbert Davies, Greenhow, and Sieveking; and for the Midwifery Board, Drs. T. Snow Beck, F.R.S., and Graily Hewitt.

Dr. Williams.—Professor Brudenell Carter will commence his course of lectures on Ophthalmic Surgery, in the theatre of the College of Surgeons, some time in June next.

W. S.—It is an old country proverb, that "one hour's sleep before midnight is worth two hours after."

COMMUNICATIONS have been received from—

Lancelot Studdert, LL.D., Ex. S.T.C.D., Dublin; Dr. Poore, London; Mr. Jonathan Hutchinson, London; The Secretary of the Pathological Society, London; Mr. George Brown, London; Mr. J. Chatto, London; Mr. Henry Morris, London; Dr. Ogston, Aberdeen; Dr. W. Bathurst Woodman, London; Dr. Semple, London; Dr. Eastes, London; Dr. Smith, Reigate, Surrey; Dr. F. Churchill, London; Dr. Bruce, London; Mr. Gover, London.

BOOKS AND PAMPHLETS RECEIVED—

Report on the Sanitary Condition of the Parish of St. Mary, Islington, during the year 1874-5—Henri Cernuschi on Bi-Metallic Money—From Madras to Delhi and back *viâ* Bombay—Seguin on Medical Thermometry and Human Temperature—Loring on Determination of the Refraction of the Eye by means of the Ophthalmoscope—Dr. A. Védrènes, Traité de Médecine de A. C. Celse—Eugène Vincent, De l'Ablation du Calcanéum en général, et spécialement de l'Ablation Sous-périostée de cet Os.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—Correio Medico de Lisboa—Glasgow Medical Journal, April, 1876—Edinburgh Medical Journal, April, 1876—New York Druggists' Advertiser, March, 1876—American Supplement to the Obstetrical Journal of Great Britain and Ireland, March, 1876—Students' Journal and Hospital Gazette—Indian Medical Gazette—Freeman's Journal—Richmond and Louisville Medical Journal, March, 1876—Pictorial World—Rivista Sperimentale di Medicina Legale—Manchester Guardian—Liverpool Mercury—Fifeshire Journal—Brighton Examiner.

APPOINTMENTS FOR THE WEEK.

April 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

17. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. Pye-Smith—Injury to Head, with Chronic Hydrocephalus. Dr. Hilton Fagge—Lardaceous Liver and Spleen. Dr. Crisp—1. Meningitis; 2. Pneumonia in Birds. Mr. McCarthy—1. Disease of Intervertebrate Substance with Psoas Abscess; 2. Communication between Vermiform Appendix and Rectum. Mr. Butlin—Tumour of Scalp growing in Sebaceous Cyst. Mr. Bellamy—Cystic Disease of Testis. Dr. Goodhart—1. Obturator Hernia causing Intestinal Obstruction; 2. Bladder nine years after Lithotomy. Mr. Teevan—Urinary Organs after Lithotrity. Mr. Morrant Baker—Ulceration of Intestine from Strangulated Hernia. Dr. Moxon—Acute Aortitis causing Angina Pectoris. Dr. Duckworth—Malformed Heart.

Statistical Society, 7¾ p.m. Mr. Harry Chubb, "On the Supply of Gas to the Metropolis."

19. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Meteorological Society (25, Great George-street, Westminster), 7 p.m. Meeting.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Mr. Knowsley Thornton, "Notes on the Progress in the Diagnosis and Treatment of Ovarian Tumours; What remains still to be done?"

21. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 8, 1876.

BIRTHS.

Births of Boys, 1320; Girls, 1246; Total, 2566.
Average of 10 corresponding years 1866-75, 2318·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	843	738	1581
Average of the ten years 1866-75	790·0	729·0	1519·0
Average corrected to increased population ...	...	...	1625
Deaths of people aged 80 and upwards ...	...	...	61

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	15	4	...	14	...	1	...	2
North	751729	...	17	8	1	19	3	8	1	4
Central ...	334369	...	6	2	...	5	...	1	...	1
East	639111	...	4	8	3	21	...	3	2	8
South	967692	...	14	15	2	26	...	2	1	4
Total	3254260	...	56	37	6	85	3	15	4	19

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·100 in.
Mean temperature	51·1°
Highest point of thermometer	70·2°
Lowest point of thermometer	32·7°
Mean dew-point temperature	43·5°
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 8, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending April 8.	Deaths Registered during the week ending April 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2566	1581	70·2	32·7	51·1	10·62	0·00	0·00
Brighton	100632	42·7	65	43	66·0	35·8	49·8	9·89	0·00	0·00
Portsmouth ...	124867	27·8	102	78	...	...	...	...	...	...
Norwich	83430	11·2	53	34	66·8	32·0	49·3	9·61	0·00	0·00
Plymouth	72230	51·8	44	36	59·0	33·0	42·3	9·06	0·09	0·23
Bristol	199539	44·8	156	102	70·0	30·9	51·1	10·62	0·02	0·05
Wolverhampton ...	72549	21·4	46	32	69·9	29·9	51·0	10·56	0·00	0·00
Birmingham ...	371839	44·3	325	149	69·3	33·4	50·8	10·45	0·00	0·00
Leicester	113581	35·5	108	43	70·0	30·2	52·0	11·11	0·00	0·00
Nottingham ...	93627	46·9	60	48	65·8	29·5	50·2	10·11	0·00	0·00
Liverpool	521544	100·1	440	336	66·0	38·0	51·2	10·67	0·10	0·25
Manchester ...	357917	83·4	266	230	72·0	34·0	52·8	11·56	0·06	0·15
Salford	138425	26·8	149	98	70·8	31·1	51·4	10·78	0·06	0·15
Oldham	88609	19·0	75	57	...	...	...	...	...	...
Bradford	173723	24·1	141	88	62·0	34·4	49·9	9·94	0·01	0·03
Leeds	291580	13·5	264	138	63·0	35·0	50·5	10·28	0·00	0·00
Sheffield	274914	14·0	220	122	69·0	32·4	50·5	10·28	0·05	0·13
Hull	136933	37·7	120	69	68·0	31·0	49·8	9·89	0·00	0·00
Sunderland ...	108343	32·8	64	38	70·0	38·0	53·0	11·67	0·00	0·00
Newcastle-on-Tyne	139929	26·1	93	51	61·0	37·0	49·4	9·66	0·00	0·00
Edinburgh	215146	51·3	146	103	...	...	...	...	...	...
Glasgow	545144	90·4	382	328	62·8	32·3	50·8	10·45	0·05	0·13
Dublin	314666	31·3	153	210	66·2	40·6	52·9	11·61	0·06	0·15
Total of 23 Towns in United Kingdm	8028595	37·7	6041	4014	72·0	29·5	50·8	10·45	0·03	0·08

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·10 in. The lowest was 29·66 in. at the beginning of the week, and the highest 30·33 in. on Wednesday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF THE

LUMLEIAN LECTURES:

THE PATHOLOGY OF THE PNEUMOGASTRIC NERVE.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By S. O. HABERSHON, M.D., F.R.C.P.,
Senior Physician to, and Lecturer on Medicine at, Guy's Hospital.

Lecture I.

After a few words of introduction, the lecturer proceeded to say: I have ventured to submit some remarks on the pathology of the *pneumogastric nerve*, because there are some questions respecting it which have not received the attention which they deserve, and there are some clinical aspects of disease which are essentially connected with disturbance of the functional integrity of this nerve. In the animal economy, the pneumogastric nerve stands pre-eminent; the functions of the body with which it is connected are of the greatest importance for the maintenance of life, for it is connected with respiration, with circulation, and with digestion. These three most important functions are guided and controlled by this nerve, and to effect these purposes its distribution is very extensive, and its relations of the most complex kind. Before speaking of the pathology of the nerve, it will be well to review very briefly its anatomical distribution and its physiological action. The nerve appears at the base of the brain, at the side of the medulla oblongata and front part of the restiform body, and behind the olivary. At this part it is in close proximity with the glosso-pharyngeal and with the spinal accessory. The nerve passes through the medulla in the direction of the floor of the fourth ventricle, where several enlargements or nuclei are observed, which are connected with the nerves having origin at this part. The root of the pneumogastric is in the closest relation with the origin of the hypoglossal nerve, the nerve of the tongue; with the fifth nerve, the sensory nerve of the face, and of the orifices of the nose and mouth; with the seventh, that supplies the muscles of the face; with the glosso-pharyngeal, the nerve of the throat; and with the spinal accessory nerve, an important nerve of respiration. There is the most intimate connexion between the nerves at this part—the fifth and seventh, the hypoglossal, and the glosso-pharyngeal, spinal accessory, and pneumogastric nerves. As the fibres of the pneumogastric emerge from the brain, they pass to the jugular foramen, where the nerve is surrounded by the same sheath of dura mater as the spinal accessory, and by the same layer of arachnoid membrane, but separated from the glosso-pharyngeal. In the foramen is a ganglionic enlargement, and there are connexions, as described by Quain ("Anatomy," eighth edition, vol. i. p. 559), with the facial, with the spinal accessory, with the petrous ganglion of the glosso-pharyngeal, and with the sympathetic. Half an inch lower down is a second ganglion of the pneumogastric, which is said not to include the branches of the spinal accessory sent to join the vagus; but the ganglion communicates not only with that nerve, but with the hypoglossal, the first two spinal, and with the upper ganglion of the sympathetic. The branches of the spinal accessory sent to join the pneumogastric, after leaving the foramen, may serve to explain the conflicting opinions of physiologists in reference to the motor fibres of the nerve. The spinal accessory nerve is in this way traced to the motor nerve of the larynx and to the palate, and is regarded as controlling the movements connected with vocalisation.

The first branch is the *pharyngeal*, and it arises from the upper part of the trunk, and, uniting with branches from the glosso-pharyngeal, the superior laryngeal, and sympathetic, forms the pharyngeal plexus, from which branches are distributed to the muscles and to the mucous membrane of the pharynx.

The *superior laryngeal* is the sensory nerve of the larynx, and is divided into an external branch and an internal. The former branch is of great importance, inasmuch as deglutition and respiration require to be adjusted, otherwise food might more frequently pass into the larynx. It supplies the crico-thyroid muscle, the lower constrictor and thyroid body, and sends a branch to the pharyngeal plexus. The explanation given by Mr. Hilton in reference to this muscular supply is, that the larynx is prepared for the more delicate contractions due to the supply of branches from the recurrent nerve. The internal laryngeal supplies the mucous membrane of the larynx, the vocal cords and the epiglottis, the base of the tongue; and it sends filaments to join the recurrent nerve.

The *recurrent* nerve is the motor nerve of the larynx, supplying its muscles, with the exception just mentioned; and it supplies branches to the trachea, the œsophagus, the mucous membrane of the pharynx, and communicating filaments to the deep cardiac plexuses and to the superior laryngeal. These are well shown in the drawing made from a dissection of mine many years ago. The next branches of the pneumogastric are to the cardiac plexus, and then to the pulmonary; afterwards, upon the œsophagus we find the œsophageal plexus—plexus gulæ; thence it passes through the diaphragm into the abdomen. In the abdomen numerous branches are distributed to the walls of the stomach. Here again I may refer to some dissections of my own. The nerve joins the large sympathetic ganglion, the semilunar; branches may be traced to the liver, to the duodenum, to the ganglion on the vena cava, by which it is brought into connexion with the phrenic. This connexion of the pneumogastric and phrenic nerves is of great physiological and pathological interest. This dissection of mine shows the phrenic distributed to the diaphragm, and afterwards it joins both the pneumogastric and sympathetic nerve in a ganglion upon the vena cava. The diaphragm is the most important muscle of respiration, and is thus brought into harmonious action with the lungs by means of the pneumogastric. The same muscle has to do with the passage of food through the end of the œsophagus into the stomach—the closing act of deglutition. We find evidence of this connexion in the spasmodic action of the diaphragm in hiccough, and we recognise it in the attempt to maintain the greatest quietness in the muscle during acute disease of the abdomen; so also in the intimate connexion of disease immediately below the diaphragm with the pleura and the lung above it. In gall-stone and other diseases of that kind we often find pleuritic disease at the same time. Branches of the pneumogastric also may be traced to the pancreas, to the supra-renal capsule, to the kidney, besides uniting with the sympathetic branches upon the aorta.

Such is the extensive distribution of the pneumogastric nerve; and, before speaking of the pathology and the morbid conditions due to altered nerve-supply, we must very briefly refer to the physiology of the nerve. The nerve is of a double character, and contains both afferent and efferent fibres. It regulates the respiratory function. It is the minute afferent branches from the pulmonary plexus of this nerve that reach the structure of the lung and bronchi; and the impressions there received are transmitted to the brain, and are followed by reflex movements. By its connexion with the fifth and seventh nerves, the entrance of air by the mouth is regulated; by means of the hypoglossal, the tongue is adjusted so as not to interfere with the free passage of air; the glosso-pharyngeal and external branch of the superior laryngeal bring the pharynx into right sympathetic action; the internal branches and the recurrent regulate the glottis; and the muscles of respiration supplied by the spinal accessory, the phrenic, and branches of the spinal nerves, complete the respiratory act. The important nerve-centre of this function is at the origin of the pneumogastric at the floor of the fourth ventricle. It is the minute branches of this nerve which, distributed to the bronchial tubes, produce constriction and narrowing of the tubes, so painfully manifested in spasmodic asthma. According to Rosenthal, the superior laryngeal nerve has inhibitory action upon the movements of respiration and upon the diaphragm, and acts centripetally on the brain; and Burkart has shown that the inferior or recurrent nerve exerts similar power.

Another important function which is controlled by the pneumogastric is the process of *deglutition;* the movements of the œsophagus are accelerated, and the cardiac orifice may be closed by it. Still more important is its influence upon the movements of the heart; it controls those movements, and irritation of the nerve retards its action, whilst a strong electric current will stop it in diastole.

The connexion of the heart's action with respiration is most important, for the one is essentially dependent upon the other: unless the respiration be performed, the heart will quickly cease, and *vice versâ*. The presence of carbonic acid in the pulmonary capillaries—the venous blood having been impelled by

the right side of the heart, and perhaps also the deficiency of oxygen in the blood—exert their influence on the minute afferent branches of the pneumogastric, and through the medulla lead to the completion of the respiratory movement.

The supply of the pneumogastric to the organs of *digestion* is essential for the right performance of that function. We have already mentioned that the passage of food in the œsophagus is promoted by the pneumogastric, and so also are the movements of the stomach; the nerve, also, contains afferent sensory fibres, and the irritation of these afferent fibres during digestion causes dilatation of the gastric vessels, according to the experiments of Bernard and Rutherford, and in disease these fibres become acutely active. In an instance of ulceration of the stomach, in which the patient suffered intense pain, I found a large branch of the pneumogastric nerve passing across the floor of the ulcer. It is probable, also, that the condition of the pylorus is regulated by the same nerve. Most interesting have been the observations made by Claude Bernard in reference to the action of the pneumogastric upon the liver; the experiment by which he found that a puncture of the floor of the fourth ventricle, at the root of the pneumogastric nerve, disturbed the glycogenic function of the liver, and produced saccharine urine. These experiments have been repeated, and the observations extended by our colleague Dr. Pavy; but we will not dwell upon them. The connexion of the pneumogastric with the supra-renal capsule with the renal plexus, and the other portions of the sympathetic nerve of the abdomen with the uterus, etc., tend to the reflex irritation of the stomach so frequently observed in diseases affecting those organs.

Numerous experiments have been made by physiologists illustrating the effect of division of the nerve upon the several organs to which it is distributed. After division, there is loss of sensation in the throat, and foreign substances may pass unheeded into the larynx—a remarkable contrast to the violent spasmodic action produced during the integrity of the nerve; again, after division, there is loss of power in the throat, and of action in the vocal cord, the glottis is partially closed; and, if life be prolonged, the muscles supplied by the divided nerve become wasted, the action of the heart is impeded, at first it is more frequent, and the force is increased; the pulse is larger, because there is diminished tension in the vessels; the lungs lose their sensibility, the movements of the chest-walls are less active, and respiration becomes less frequent but more deep, till it ceases altogether. The capillaries of the lung become filled with blood; the lung is deprived of air; the mucous membrane is congested, and frothy serum exudes into the air-cells; the nutrition of the part is altered, and inflammatory changes are induced. This inflammation is often found where the pneumogastric is injured by pressure. Where the nerve is divided, the cardiac orifice of the stomach does not act, the mucous membrane of the stomach becomes pale, and the secretion is for a time checked, whilst, on irritation of the divided central end of the nerve, the colour is restored. A common effect of irritation of the gastric branches of the pneumogastric is that vomiting is produced, and when the nerves are divided and the peripheral ends are irritated, movements of the stomach are induced (Lauder Brunton); but when these nerves are paralysed, vomiting ceases, and the stomach more easily yields to expansive forces and becomes distended. This condition, we would remark, is very different from those instances in which, from sudden over-distension from gaseous formation and other causes, the muscular coat is unequal to the force required for contraction; the nerve, however, is overtaxed, and thereby inoperative.

In considering the diminished power of the pneumogastric in the abdomen, we can scarcely separate its individual action from that in which it is associated with the vaso-motor nerve; in the effects produced by an ordinary bilious attack, or in that consequent on violent vomiting, the afferent fibres of the pneumogastric are in unison with those of the vaso-motor or sympathetic, they are weakened and the vessels expand, at the same time that the cardiac branches sympathise, and the pulse becomes weak and compressible, and the heart's action feeble. After violent vomiting, the secreting power of the liver is interfered with, and the motions become exceedingly pale, at the same time that the nervous supply to the lower lobe of the right lung becomes sympathetically affected. This connexion is seen, also, in most cases of inflammation of the stomach; but to this we shall again have to refer. The sudden action of cold water upon the afferent nerves of the stomach may by reflex action stop the heart.

The intimate union of the pneumogastric nerve with branches of the spinal and of the sympathetic nerve may lead to the development of symptoms as if the branches of the pneumogastric were themselves irritated. We shall subsequently note instances of this reflex action: and a remarkable instance of it is mentioned by Dr. Burdon-Sanderson in reference to the fifth nerve affecting the pneumogastric in the rabbit by causing the animal to smell ammonia. "The effect is immediate, according to the strength of the ammonia; the heart is arrested in diastole, or the diastolic intervals may be lengthened. Inhalation of chloroform may stop the heart in the same way." This connexion of the fifth nerve is of great interest in some diseases. In hydrophobia, the whole of the branches of the fifth nerve are in a state of intense irritability; the least breath of cold air, merely passing the hand near the face, will induce the most intense spasm of the throat; the branches of the superior laryngeal nerve and of the glosso-pharyngeal are at once acted upon, and so other branches of the pneumogastric nerve, the fifth nerve having acted by its afferent branches upon the medullary centres, reflex action is at once induced. It has been stated that inflammation of the sheath of the nerve has been observed, and also of the cervical nerves at their origin; but these statements require confirmation. In this terrible disease we have a condition of extreme hyperæsthesia of these cerebral nerves and their centres; while conversely in labio-glosso-laryngeal paralysis we have diminished power of these centres. The seventh nerve is paralysed, and the fifth is weakened, and with these the branches of the superior laryngeal nerve are devoid of sensibility, deglutition is impaired and becomes a dangerous process, for the natural safeguards are removed. In the clinical wards of Guy's Hospital, during the past session, a man with this disease was admitted under my care; his countenance was expressionless, his tongue had lost its power, and deglutition was so difficult that he was fed by means of the stomach-pump. To relieve his thirst, however, he made the attempt to swallow a draught of milk; the superior laryngeal nerve had lost its sensibility, and some of the milk passed into the trachea and bronchi. This was quickly followed by a fatal result, and on the post-mortem table the milk was found in the respiratory passages. In this case the afferent branches of the pneumogastric failed to excite the sensory centre and to induce the expulsory efforts of violent cough. The afferent fibres of the fifth were also weakened.

We have in this latter disease the opposite condition to that observed in hydrophobia—hyperæsthesia in the one, anæsthesia in the other. The same connexion of the fifth nerve with the pneumogastric is found in the effect of severe chill or shock from cold; the action is shown in ordinary sneezing, but more decided when the power of the pneumogastric is weakened and severe bronchitis or pneumonia induced. The shock on the nerve-power of the respiratory organs may be so great that the patient is in a few hours in a state of the greatest prostration, with dry and brown tongue, resulting in advanced fever, but without cough or ordinary external signs of inflammation of the chest. The pneumogastric is almost paralysed, but the first effect was upon the fifth nerve, and a mistake is made in the treatment of these diseases if this connexion of the fifth nerve is overlooked. The face should be kept warm, and no draughts of cold air allowed to play upon it. It is quite true that in the perspiration and craving for air in severe pneumonia, fanning the face is a temporary relief to the patient, but this is an expression of the exhaustion and of the desire for pure air which the system needs.

We might adduce other instances of the manner in which the pneumogastric nerve is affected by reflex action, but would only here advert to the effect produced upon the centres of the nerve by disturbance on the cerebral aspect of the ganglia. It is powerfully influenced by the emotions and by the passions. The special senses directly influence it: an offensive object, and still more a disgusting smell, induce violent retching; sudden alarm at the sight of danger, or the sound that terrifies, at once affects the heart and the respiration, as well as the action of the abdominal viscera supplied by the nerve. The nerve is placed as the custodian of essential vital functions, but it is, as it were, the willing handmaid of the mind and will. We had spoken of its extensive distribution, and each branch of the nerve has, we believe, a definite purpose; and by its means the throat, the larynx, the lungs and the heart, the stomach, the liver, and other abdominal viscera, are brought into the closest union. During health, the hidden connexions are united in harmonious working; but

in disease the jarring of disturbed action spreads its sympathy to all the parts thus linked together. The following laws of action are often observed in the study of clinical medicine:—

I. Disease at the origin of the nerve may induce symptoms in any of the peripheral branches; and this reflex state may be one of irritation and hyperæsthesia, or one of diminished power and anæsthesia; the one is spasmodic in character, the other paralytic.

II. Irritation in any set of peripheral branches may produce disturbance in any other part to which the nerve is distributed, or in the centre itself.

III. Alternation of irritation may be induced—at first one set of nerves, then another, becoming implicated. This alternating character of functional diseases is of great clinical interest. We see an irregularity of type and rapidity of recovery which contrast remarkably with the severity of the disease. Spasmodic asthma of the most distressing kind suddenly gives place to disturbance of stomach, this to cerebral symptoms, and these to severe neuralgia. Violent vomiting and marked gastric irritation are followed by loud cough and by loss of voice, indicating that an affection of one set of nerves has given place to change in another set of branches. In general weakness, there is loss of power in all the parts supplied by the nerve, and the fact is often of great importance in the close of disease. In exhaustion, the voice fails; many patients who are suffering from chronic disease are said to die from the supervention of bronchitis or of pneumonia, when the pulmonary condition is really the expression of exhaustion of the pneumogastric nerve So, also, when there is great weakness, there is greater liability to affections described as bronchitis and inflammation of the lungs; the power of the respiratory centres being lessened, disturbance of nutrition more readily takes place. Still further, when patients are reduced by chronic disease of the stomach, or of the kidney, similar pulmonary changes may be due to exhaustion; this does not oppose the fact of œdema of the lung and broncho-pneumonia coming on from uræmic poisoning.

A further evidence of exhaustion of the pneumogastric nerve is the loss of appetite, and the diminished power of the stomach to digest food placed in it.

The pneumogastric may be affected as a whole, and the symptoms presented in diabetes are perhaps the best illustrations of this general condition of disease. An interesting paper on this state was published in the *Medical Times* of 1856 by the late Dr. Charles Shearman, on "Neurosis of the Pneumogastric Nerve"; he drew attention to the depression of spirits, to the loss of memory, the malaise, the sense of exhaustion at the stomach, with yawning and sighing, and often with palpitation; to the disturbance of digestion, and, in many instances, to the diabetic condition of the urine: these symptoms often manifested a periodical character, and, when the condition was early recognised, were amenable to treatment. In true diabetes, the branches of the pneumogastric are especially affected, and we find not only the glycogenic function of the liver disturbed, but the other parts supplied by the pneumogastric are involved, the pulmonary nutrition is interfered with, and a chronic pneumonia is often induced; palpitation and disturbance of the heart are common symptoms, and the voice is often altered in character. There is the closest sympathy with the sympathetic nerve, and with the cerebrum; hence other common symptoms attending the disease, such as the impaired nutrition, the red tongue, the dry skin, the altered appetite, the confined state of the bowels, and, at a later period, diarrhœa; and, as to the brain itself, the melancholia which is often induced. The same connexion of the pneumogastric branches with the vaso-motor nerve is seen in that remarkable disease, exophthalmic goître. With impaired nutrition we find enlargement of the thyroid, protrusion of the eyeballs, and an irritable condition of the heart; and sometimes with a saccharine condition of the urine, as in a young gentleman of superior scientific attainments, aged about twenty-three, in whom, with an extremely sensitive condition of nervous system, we had well-marked exophthalmic disease with a recurrent glycosuria; the branches of the pneumogastric in him were especially prone to morbid action.

It may facilitate the right understanding of our subject if we take the several parts supplied by the nerve in connexion with the laws which have been just adduced; and first the larynx. The *larynx* may be affected by spasmodic irritation, or weakened by paralysis; and each of these may be central in character, or be produced by local or by peripheral causes.

Spasmodic irritation	Central	In epilepsy and functional disease of brain.
		In laryngismus stridulus.
		In whooping-cough.
	Local	In catarrh and laryngitis.
		In croup and diphtheria.
		In the different forms of ulceration, etc.
	Peripheral	In irritation of the uvula.
		In aneurism pressing on the recurrent nerve.
		In early phthisis.
		In heart disease.
		In enlarged glands.
		In hysteria.
Paralytic weakness	Central	In exhaustion.
		In disease of brain, as apoplexy.
		In cerebral aphonia.
		In glosso-laryngeal paralysis.
	Local	In diphtheria.
	Peripheral	In aneurism.
		In pressure on the pneumogastric or recurrent nerve by tumours.
		In hysterical aphonia.

In the paroxysm of an epileptic convulsion, the larynx is spasmodically affected; but, in this disease, not only are the premonitory symptoms of the most varied character, but we find that, in the interval between the paroxysm, vague sensations are produced, which are evidently traceable to the same cause. An impression is made upon the nervous system, of which the patient alone may be conscious, and one or other branch of the pneumogastric may in this way be involved: the stomach, the heart, the lungs, and the throat. It may be a sense of choking or of dyspnœa, or more severe spasmodic irritation. If the cause be recognised, treatment will be more successful.

There is much doubt as to the true pathology of whooping-cough; according to Dr. Copland, it has its seat in the medulla oblongata; and some speak of it as a neurosis of the pneumogastric nerve; but there can be no doubt that the parts supplied by the pneumogastric are especially affected; the spasmodic condition of the glottis, the urgent dyspnœa and cough, with the closed state of the rima, producing the lividity of the countenance and the long-drawn inspiratory sigh; then, also, the irritability of the chest, often followed by cough and by emphysema, and the great sensibility of the stomach, so that vomiting is very easily induced, show that the whole of the branches of this nerve are exquisitely sensitive. The fact that it is a disease communicable by contagion does not militate against the idea that it is the pneumogastric that is especially affected. The same remedies which are available in relieving spasm of the throat lessen the severity of this disease; and, when the malady becomes more severe, the irritation is prolonged from the origin of the pneumogastric to other nerve-centres, and general convulsion is induced. In measles, also, another contagious disease, we find great sensibility of the pulmonary branches of the pneumogastric.

The spasmodic diseases of the larynx which are due to peripheral irritation are of a very interesting kind, and we will very briefly advert to them. In many instances of relaxation of the uvula and mischief about the throat, cough and irritation of the epiglottis are due to direct disturbance. The elongated uvula may come into contact with the epiglottis itself; this, however, is not always the case, and the disturbance of the superior laryngeal is reflex.

This reflex disturbance is more decided in aneurismal disease of the aorta and of the large vessels of the neck, which may induce pressure upon the recurrent nerve. At first, this may be mere spasmodic irritation from slight disturbance, and afterwards the disease may lead to paralysis of the part, from long-continued pressure. As the recurrent laryngeal nerve supplies nearly all the muscles of the larynx, spasmodic contraction is easily induced. At first, there is very little affection of the voice, but sudden paroxysmal dyspnœa, which often comes on at night. The patient awakes in great distress, and is unable to get his breath. The distress is sometimes extreme, and this symptom is often one of the most prominent indications of aneurismal disease of the aorta. There may be nothing observable on laryngoscopic examination of the throat; no change in the voice, no affection of the pupil; and the general physical signs of disease may be very imperfectly developed. A case of this kind occurred many years ago in Guy's Hospital, before, I would say, the laryngoscope was used. The patient was a strong man, without any symptoms of heart disease, but with occasional difficulty in swallowing, and with the paroxysmal distress just mentioned. My former teacher and colleague Dr. Addison diagnosed aneurism, although the œsophageal symptoms were more decided than the other indications of disease; and the termination of the

case showed the disease to be aneurismal in character. In pressure upon the larynx and trachea from aneurism and tumour, laryngeal spasm greatly aggravates the dyspnœa and distress.

Another form of reflex irritation is that affection of the larynx which is produced by disturbance of the peripheral branches of the pneumogastric in the lung. The voice is changed, and a dry hacking cough, with laryngeal irritation, seems to indicate mischief in the windpipe, but it is really due to reflex irritation. A patient will often describe the mischief as being in the throat itself, when, by careful examination, the commencement of tubercular disease is found in the lung. These instances are, of course, to be distinguished from those in which, at a later stage of chronic phthisis, disease in the larynx and in the vocal cords is induced and ulceration takes place.

Again, in heart disease of an organic kind, we also find reflex irritation of the laryngeal nerves. This state is to be distinguished from the urgent dyspnœa which is produced by the disturbed relations of the lungs and heart; thus the blood is unable to pass from the lungs, in consequence of contracted mitral valve, and thereby the respiratory act is imperfectly and hurriedly performed, and the lung is surcharged with blood. Besides these cases, we have instances of heart disease, whether from valvular disease or weakness, in which sudden laryngeal distress is produced, and urgent dyspnœa. This paroxysm often takes place about two or three in the morning; the patient is suddenly roused from sleep, because the respiratory centre does not receive its proper supply of aërated blood; the involuntary muscles of respiration during sleep, being unassisted by the muscles of forced respiration, which had served to maintain the balance of the respiration and circulation, are alone insufficient, and, after a time, the need of the system rouses the patient to take a deep inspiration and to supply more oxygen. This explanation will, however, not suffice for many instances in which the patient may be awake, and breathing to the utmost of his capabilities, but still the laryngeal spasm comes on. In other instances of functional disease of the heart, from weakness and from dilatation, we find similar sudden laryngeal spasm produced.

The same symptoms of reflex irritation by pressure upon the recurrent laryngeal nerves may be caused by enlarged glands in the neck or in the upper part of the chest; and, in some instances, during early life, the condition is one precisely resembling that of laryngismus stridulus produced by cerebral irritation. In gastric disturbance an irritable dry cough and perverted sensation of the superior laryngeal nerve may be induced; a tickling in the throat, which the patient can scarcely distinguish from actual local irritation of the part, or the spasmodic affection may be more decided in character.

In hysteria the spasmodic affections of the larynx are closely connected with those of the œsophagus; a sense of choking from spasmodic contraction in the latter is associated with difficulty of breathing from spasm of the former. The sensation as of a ball in the throat, the globus hystericus, is not limited to the gullet, but extends to the windpipe; there is gasping for breath, with irregularity, and often afterwards hurried respiration.

It is not necessary to dwell further upon these spasmodic laryngeal affections; but we pass on to consider those which are of a *paralytic* character, where there is loss of power or anæsthesia: these also may be divided into those which are of central origin, those which are local in character, and, lastly, the peripheral. As to the first, we find loss of power in both recurrent nerves in states of great exhaustion; and when the origin of the par vagum has lost its active power, the insensibility of the superior laryngeal nerve may allow food to pass into the larynx, as during syncope, and also towards the close of life: it is of importance to bear this fact in mind, otherwise sudden cessation of life may be produced by laryngeal obstruction. This loss of sensibility is to be remembered in the severe form of disease which has been designated labio-glosso-laryngeal paralysis; and we have already referred to an instance in which the attempt of a patient to swallow milk when the larynx had lost its sensibility led to its sudden passage into the trachea, and caused death. In this disease, the malady is central; it is at the central origin of the nerve, and probably at the part where the spinal accessory, facial, the hypoglossal, and the par vagum are brought into close relationship at the floor of the fourth ventricle. Trousseau refers the disease to the spinal accessory nerve, and regards the branches of nerve supplied to the larynx as being derived from that nerve, at least as far as the power of speech is concerned; whilst the pneumogastric has especially to do with the respiratory act.

Still more interesting are the forms of paralysis of the recurrent nerve and of the vocal cords which are due to reflex action. Any form of pressure upon the recurrent nerve may induce altered nutrition and hoarseness, the consequence of the paralysis; for the recurrent supplies the vocal cords and, with one exception, the muscles of the larynx. The laryux may be examined by the laryngoscope, which becomes an important help in diagnosis, and the vocal cord may be seen on one or other side to be weakened or powerless. In an interesting paper by Dr. George Johnson, in the *Medico-Chirurgical Transactions* of 1875, he shows that, whilst pressure on one recurrent nerve, on the same side, will produce spasmodic action or paralysis, pressure on the trunk of the nerve will cause atrophy or spasmodic action on both sides. Aneurismal disease is perhaps the most frequent cause of this reflex paralysis—reflex in its being produced, not by direct injury of the larynx, but upon it by secondary pressure; not reflex in the sense of an impression being conveyed to the nerve-centre, and then propagated to the affected part. These instances are very different in character from those already described as due to a central cause. Enlarged bronchial glands, cancerous disease, and it is said that pleuritic thickening about tuberculous lungs will induce this change by affecting the recurrent nerve.

Many of the instances of reflex paralysis which are associated with functional disturbance of the uterine organs are closely allied to those which have been referred to as hysterical aphonia.

These varied affections of the larynx may be produced by disease at the origin of the nerve—the pneumogastric—or the disease may be reflex in character, the irritation of one series of nerves affecting other branches, as of the lungs, or of the stomach, or of the larynx; and, lastly, these laryngeal affections may give place to disturbance of the lungs or of the stomach, alternating the one with the other; a patient at one time having aphonia, then spasmodic irritation of the bronchial tubes, or functional disturbance of the digestive organs. In the one case, the attempt should be made to relieve the central mischief; in the second, to lessen the primary source of peripheral disturbance; in the third, to remove the general irritability of the nervous system.

The Medical Members of the Chamber of Deputies.—The special knowledge of the medical members of the Chamber is likely to be often available. For the consideration of the new Bill for the organisation of the hospital services of the army, of a committee of eleven deputies, six are medical men, one of whom, M. Laussedat, has been chosen as the chairman, and another (M. Liouville) as secretary.—*Gaz. Méd.*, April 15.

Treatment of Varicose Ulcers by the Tartrate of Iron and Potass.—Dr. Bourguignon having derived so much advantage from this substance in the treatment of phagedænic chancre, as recommended by Ricord, was induced to extend its application to chronic wounds in general, and especially to varicose ulcers of the leg with hard, well-defined edges and unhealthy surfaces. For the last ten years he has found these obstinate cases readily yield to this treatment, so as to become cured in two or three months. A solution of from two to six parts of the tartrate (according to the sensibility of the ulcer) is to be made in 100 of pure distilled water, a few drops of ammonia being added to prevent any precipitation. Pledgets of very fine charpie are to be soaked in it, and applied to the ulcer night and morning, and covered over with a thick layer of cerate, which must be so removed, with the aid of tepid water, as to leave none of the charpie sticking in the ulcer. After cicatrisation has commenced, the lotion may be applied only in the evening, simple cerate being substituted in the morning. If the application is painful at first, opiate cerate may for a while be employed alternately. The tartrate is also a valuable remedy given internally, a mixture of four grammes in 150 of distilled water forming a valuable analeptic in chlorosis, chloro-anæmia complicated with gastralgia, and in dyspepsia, when solid preparations of iron are not borne by the stomach. Given in doses of a tablespoonful before each meal, it much facilitates digestion. After a few weeks, more energetic ferruginous and stomachic preparations may be substituted.—*Union Méd.*, March 30.

ORIGINAL COMMUNICATIONS.

CASES OF OBSCURE NERVE DISORDER.

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(*Continued from page* 357.)

No. XVII.

SENSORY AND MOTOR PARESIS OF LEFT ARM REMOVED BY BLISTERING A TENDER SPOT.

S. T., a stout, healthy-looking butcher's man, aged thirty-one, seen February 18, 1876. States that he injured his left arm a little below the elbow four years ago; after ailing five weeks it got well, and he felt nothing amiss in the part until two months ago, when he began to have gnawing and aching pain in the forearm, extending from the elbow down over the front and outer edge of the limb to the dorsum and fingers. The parts "go regular dead after the pain." When he wakes in the morning the limb is always painful—worse then than at any other time. After the pain, which lasts half an hour, the arm is quite useless, so that he can't lace his boots or button his shirt. Moving about makes it better, takes the numbness off; but if he lets the part remain still the numbness comes on again. He sleeps fairly well. Health otherwise good. The arm is not at all wasted; the muscles are large. No tenderness over ulnar, median, or radial nerves. There is a scar of the size of a six-pence a little below the internal condyle of the humerus, but it is not in the least tender. But at the outer part of the forearm, over the radius, and two or three inches below the elbow, there exists very marked tenderness over a patch about three inches long by two wide; he feels pain in this part while exerting the arm, and says that the sensation is as if the bone were broken. I painted the patch with liq. epispasticus, and gave him pot. iod. gr. iij. ter die.

February 22.—"All the deadness went away after the blister." He feels nothing amiss now, except that pulling strongly with his left hand causes some pain in the blistered part. He has had no numbness on awaking the last three mornings. Can use his hand now in dressing. There is a little tenderness still over the upper part of the radius.

March 1.—Was quite well two days ago, but has got a little return of numbness, or an indescribable feeling in the left index, which he first felt while in bed. He is at work, and can use the limb well. The upper and outer radial region is still tender.

9th.—A little sleepiness about hand, not in fingers, this morning; had a little pain about the wrist in working yesterday; otherwise is all right. Ferri carb. sacch. ʒj. bis die.

22nd.—Says his hand is well, only, as the weather is cold, wears a glove to protect it.

Remarks.—The pain and numbness were the initial symptoms of the disorder, both at its first appearance and in its matutinal aggravations. The loss of power was secondary in time, and probably was a result of the sensory disorder—in fact, was a reflex paralysis. The *causa mali* was evidently not a general one, such as failure of nerve-force from exhaustion, or systemic debility, or from any toxæmia, for the man was vigorous and healthy, and bore no trace of syphilis, or rheumatism, or any such taint. There was local tenderness, which seemed to be referable to slight periostitis, and which was removed by blistering. There was also a history of an injury to the limb near the seat of tenderness. Had the sensory disorder closely succeeded the injury there would have been little hesitation in referring it to the latter; but as four years had elapsed since the accident the connexion is not so clear. Still, it is to be remembered that there are cases on record (*vide* one at page 319, of F. N. D.) where an injury to the head preceded by several years the occurrence of cerebral symptoms. In Case 13 of this series (*vide Medical Times and Gazette*, September, 1875) there was similar disorder, which occurred or recurred twelve years after recovery from an injury of the leg, and was similarly benefited by blistering. The morbid condition in these cases cannot be exactly described, but we know that the symptoms are the results of nerve-irritation produced in some way by injury to bone: and as they are removable in many instances by blistering, there is a presumption that the irritation is caused by a process of the nature of neuritis affecting some nerve-filaments lying adjacent to or in contact with the bone. This seems to me the most probable view of the pathology of the above case. Instances of this kind are perhaps not very rare. I suspect that not a few cases of intractable neuralgia, which are refractory to tonics and phosphorus and cod-oil, are really dependent on local irritation. A nerve traversing a bony canal may be irritated by some limited periostitis; another may be pressed on by a calcified gland or artery; a third may be teased by a latent neuroma, or the like. The increase of disorder in the morning is probably to be attributed to the effect of the state of sleep. During slumber the *vis nervosa* is feebler, and there is consequently a greater liability to derangements of the functions of various nerve-centres. These often interrupt sleep, as in the case of asthma; but it is quite intelligible that where they are not severe there may be no conscious apprehension of them until waking. The association of pain and numbness in the above history is well worthy of note. I need not dwell on it now, as I have often done so before.

CASE OF

SUDDEN DEATH OCCURRING SHORTLY AFTER A NATURAL LABOUR.

By W. J. H. LUSH, M.R.C.P., F.L.S., M.R.C.S.,
Associate of King's College, London.

Mrs. S., aged thirty-nine, the mother of seven children, all living, was delivered of a still-born but well-formed and healthy-looking female child on October 29, at 4.30 p.m., having been attended during her confinement by a midwife.

She had always enjoyed fairly good health, and, although not a strong woman, was free from any organic disease of the heart, lungs, etc. Besides having given birth to seven living children, she had had two miscarriages. The first, which occurred six years ago, she soon recovered from; the second, in which I attended her, happened last January twelvemonth, and was followed by profuse hæmorrhage.

The midwife in attendance informed me that the patient had had a very short labour, and that she seemed to be going on very well up to about two hours after delivery. She then began to complain of being unusually faint, said she felt extremely weak and ill, yet at the same time did not complain of any pain, and was unable to explain what was the matter with her. The friends, becoming anxious, sent for me, and, as the patient lived only a short distance from my house, I was almost immediately in attendance. On first seeing her, she gave me the impression that she had lost a large quantity of blood: the countenance was blanched, the features were drawn and pinched, and the extremities cold. The pulse was weak and fluttering, and the respiration laboured; the whole surface of the body was bathed in a cold, clammy perspiration; and, although quite sensible, she was extremely restless. The pupils were both slightly dilated, but perfectly sensible to light.

On making a vaginal examination, I found everything as it should be after a natural labour. The uterus was hard and well contracted, and there was no external appearance of there having been more than the usual amount of hæmorrhage. The midwife (who, from personal knowledge, I knew to be a thoroughly trustworthy woman) informed me that there had been very little hæmorrhage either before or after the expulsion of the placenta, which was of average size, and came away about fifteen minutes after the birth of the child.

I ordered hot-water bottles to be applied to the feet and hands, and gave her brandy and egg beaten up together. After taking this there was a marked improvement in the pulse, respiration, and temperature. I thought everything was going on satisfactorily, and ordered some extract of beef with brandy to be prepared; and when it was ready (in less than ten minutes) I was about to give it to her, when she was suddenly seized with a violent pain or convulsion, which seemed specially to attack the chest. She became unconscious, and only expressed her feelings by continued moaning. All the muscles of the body were hard and rigid; the eyes became staring and insensible to either touch or light; the teeth were clenched and grinding, and there was a frothy discharge from the mouth. The convulsions gradually subsided, but the patient never rallied, and in less than a quarter of an hour from the commencement of the attack she had ceased to breathe.

Unfortunately, no post-mortem was allowed, so the cause of

death must at the best be only a supposition. I believe it was the result of idiopathic asphyxia, or of some associated syncopal affection; and one question, amongst others which are I think, suggested by this case, is whether idiopathic asphyxia and fatal syncope are essentially different, or simply varieties of the same condition. It is impossible to say whether the paralysis commenced in the heart or in the lungs, or whether either or both of these organs were affected by it. The severe shock caused even by a natural labour is not recovered from for some considerable time, so that, till that shock is recovered from, any impression, whether mental or bodily, is not met with the same amount of resistance as it would be under less trying circumstances.

This is one of those cases which I suppose most men of much experience have occasionally met with in practice, and, however unpleasant the occurrence of them may be, I think they should always be recorded.

Fyfield.

THE RECENT DISCUSSION ON SYPHILIS.

By GEORGE GASKOIN, M.R.C.S.,
Surgeon to the British Hospital for Diseases of the Skin.

It is impossible to pass without a protest the debate on syphilis at the Pathological Society. This debate will have a value attached to it, both at home and abroad, far beyond any individual expression of opinion; but I must refuse to see in it any true reflex of English thought on the subject.

I protest earnestly against the retrograde character of this debate. It does not only ill represent such progress as is realised here; but it has rendered progress—apparently, and at least for a time—impossible. Considered as a single event, it is a great calamity for science.

The fault lies greatly with the gentleman entrusted with the opening of the discussion. His audacity in striking at inconvenient truths—such, I mean, as clash with his published opinions—gave the tone to the debate, and turned it from its natural current. The choice made of him does not surprise me; but I am shocked at the use he made of his position.

We have thus a discussion not so much on syphilis as upon a side-issue: its likeness to the specific fevers—an idea which has not escaped mention in modern syphilography, and has perfectly found its level there. It dates from the earliest records that we have of syphilis, and from the days when people were most perplexed and least informed. It was then the most prominent fact connected with the subject, and was also the one grand obstacle to the reception of the truth. It is not an obscure doctrine, and has just enough of reality in it to satisfy superficial inquirers. If first thoughts are always the best, this one has truly the strongest title to endure.

But it is not with the intention of doing honour to antiquity that we find this idea pronounced; it is made to appear novel and original, and to this end there has been a sacrifice of fundamental truths—a circumstance that may very well give rise to protestation.

Syphilis, it seems, is like measles and scarlatina; and these, according to popular belief, spring out of epidemic influences; and therefore syphilis, by a parity of reasoning, grew out of an epidemic. And since dualism contends with this view, therefore dualism must be destroyed; and since dualism inculcates the study of history, therefore history must be discredited and modern science exorbitantly extolled. All this holds together most naturally. It is all one compacted mass of error.

But there is something so audacious in the assertion that "dualism is dead" that it cannot but provoke conjecture as to what this gentleman relied on when he hazarded so extraordinary an assertion. Does he not know that this shade of opinion is the prevailing one all over the Continent, and that it has won this position against great odds as a purely scientific idea, and against the most powerful and perverse local influences? And here in London they are not the least respectable among syphilologists who adhere to this opinion. Is it possible not to be aware of this? To what, then, did this gentleman trust when he ventured on such an assertion?

There is a good deal that happens in London that is all but incomprehensible to those outside. We are far too much dominated by the personal idea. It is not often we look beyond. We have scarcely any other rule but that, and thus science lies much at the mercy of chance.

Now let us suppose another person and another vein, and this other time a dualist leads the debate. Suppose he had given loose to the expression that a unicist is an ignorant, unlettered barbarian. This is far more up to the mark of the day, and would not perhaps have created more surprise. To one like myself, I confess, a unicist is simply an individual that will not seek for the truth—a savage that will destroy it when he gets the opportunity; and when he does not get it, why, then he lies in wait to destroy it.

But how many men are there in London who are really in earnest about such things? There is really only a sprinkling of earnest, reflecting men. The tendency of modern teaching is to scatter doubt and incredulity, and the natural product of such teaching—what can it be but indifference?

If at any hour of the day there is good seed to be sown, the ground is not so much occupied as tampered with, and all hopes of a crop destroyed. It is thus that, under certain social influences, all fine truths are doomed to destruction. These blighting stars are not uncommon.

The unicist has been properly called the son of confusion; and what confusion can be greater than that which has come of these debates? The disorganisation of this branch of medicine is for the moment complete.

And what kind of debate is this, where those speak with greatest confidence who are less particularly instructed, and those who are best informed have their mouths sewn up beforehand?

But if it be said that dualism found a weak support in that Society, I say, after such an introduction, it was a mistake to speak in its favour or to make any mention of it at all.

The entire question was prejudged. Those that were its friends spoke with bated breath, as if excusing themselves for the knowledge they were freighted with. But is this an attitude that science should accept? It should never be exposed to such humiliation.

And is not this a pretty way to show that syphilis is a fever! But the idea, I say, is borrowed from four centuries back. For some time after its first outbreak, syphilis was spoken of as a specific fever, for all then was ignorance and conjecture; and next they thought it more like ague; and then, perhaps, they got to be a little better informed.

And this is all rehearsed anew. Sir James Paget thinks very highly of the comparison with specific fever. But some one has mentioned ague: "Why, this is excellent," says he, "truly a better idea than the other!" But whether it is shaped like a whale or backed like a weasel no one seems to care very much.

There is truly a ludicrous side to this debate; but for my part I feel so very far less disposed to laugh than to cry. Is there anyone who dreams what mischief has been done? To think of the difficulties in arriving at the truth, and then to see all destroyed so wantonly!

It is true there is a likeness to syphilis in the specific fevers, and there is a likeness, also, in ague. But being merely caught-up notions, and not bred of study and reflection, they are neither developed nor corrected. They hang like borrowed garments on the wearer, with all the appearance of a misfit. Exaggeration there has been in plenty, but no pathological discussion. Amongst us a hospital appointment carries with it very much weight. I am not going to repine at that, for these gentlemen know their work exceedingly well, and it is a very high quality of work. But here is the fallacy. If a man knows one thing well, is that a reason why he should know all things well? I think the contrary should be expected. This fallacy in human nature is inveterate; it requires constant correction; it is reproved by Socrates himself.

Now, these gentlemen make for us the fair weather and the foul. They are always listened to with respect; we defer to them in every way. Whatever subject turns up, we accept no other initiative; and yet scarce one of them has an hour of leisure at command to inquire into anything that lies a little distance from the roadside! They quench their thirst at the nearest brook. We now go far too much on the "ready penny" and "nimble sixpence" principle in our relations with science, and the result is not exactly what Dr. Wilks has declared. The age is truly superabundant in work, but wretchedly poor in ideas, and altogether unsure in its results; it has a certain barbaric activity of its own, but somehow is always slipping backwards. If neglect of learning be the highest praise, this age is surely without a parallel.

But is clinical opinion always sound? does experiment never deceive? In the course of this discussion I discern very many

false facts, to be quoted henceforth, no doubt, as interesting data. And why should experiments, even now in the course of performance, override all former conclusions deduced from early observation? But ever since science became a fashionable thing, and a principal means of distinction, we see everyone rushing after that, we are overcrowded with scientific men, and there is a dearth of great physicians.

But when we are told that we shall have the germ theory or none—for no other remains on the card,—when we hear confusion deprecated, our loyalty appealed to, and our sense of orderly arrangement, and so we find ourselves whipped into a belief no older than yesterday's gazette,—it passes all measure of the ludicrous. Can presumption go much beyond this?

Already perhaps there is more said than will be thought opportune. I cannot think otherwise of the discussion at the Pathological Society than as a disastrous event. I had hoped to see science advance in my day, but I see it fated to go backward. You may plead for these discussions, that they contain valuable observations and some refined suggestions; and I may perhaps allow so much. I confess the competency of many speakers, and the talent of all; but what strikes me most is the wild talk and, above all, the fatal presumption. I see long pages of unwholesome reading, a fallacy in every phrase and a violent wrench given to the whole thing; the harm done quite irreparable. It is not that these sophisms will escape refutation, but it is the extinction of legitimate curiosity, the choking of the natural appetite with abominable food. I suppose it is a sign of the times, and there is nothing left for it but submission. We are all gone wild after germs and parasites; but as for the laws of life and the nature of the organism, they are less understood than before.

7, Westbourne-park.

*** We have given Mr. Gaskoin the relief of being able to say *liberari animam meam;* but we must add that his views as well as the language in which he has expressed them, are all, and very entirely, his own.—Ed. *Med. Times and Gaz.*

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

CASES UNDER THE CARE OF SIR W. FERGUSSON.

[From notes by A. B. Barrow, F.R.C.S., late Surgical Registrar.]

Case 1.—*Tumour of the Antrum.*

E. H., aged fifty-four, was admitted on May 8.

History.—Two months ago the patient noticed that her left nostril was becoming stopped up, and soon after a swelling appeared on her left cheek. Both these symptoms have rapidly increased since, and there has been a constant discharge of thin brown watery matter from the left nostril, and lately from the inner side of the cheek into the mouth also. It has been almost unattended with pain. Since last summer she has observed that occasionally, when stooping, bleeding from the nose has occurred, and she has blown black clots of blood from the nostril. She has not been laid up by illness. Her habits have always been very temperate. Her children are very healthy. Her mother died of cancer of the breast; her father of old age. One brother is said to have died from intestinal obstruction after a somewhat protracted illness. Three brothers and two sisters are alive and in good health.

Condition on Admission.—A tumour exists, causing a prominence on the front of the cheek, obstruction of the left nostril, and protrusion of the left eyeball. Nothing unnatural is observable about the alveolar process of the upper jaw, except that the teeth are out: but this is the case with the right side also, and has been so for many years. The tumour is soft and elastic to the feel, and rather tender. On examining the left nostril, a polypoid-looking substance can be seen in it. A thin sanious discharge escapes from this nostril; it is not very fetid. The skin is freely movable over the tumour; no veins are seen to be enlarged; no enlarged lymphatic glands can be discovered. Patient complains only of a slight occasional shooting pain in it. She is a pale, decidedly cachectic-looking woman, but does not present other constitutional disturbance.

The patient being under chloroform, Sir William Fergusson removed the tumour from the antrum by an incision through the median line of the upper lip, and dissecting the skin and ala of the nose freely from the surface of the tumour. It was found that a distinct capsule surrounded it and separated it from the skin and subjacent tissue. No difficulty was experienced in its extirpation. Two pins were then passed through the lip, and the edges brought together by silk twisted round them.

May 31.—The lip healed perfectly; the prominence of the eyeball has entirely subsided. A slight discharge escapes into her mouth.

Condition when Discharged.—There is not any sign of return of the tumour as far as outward appearance goes, and she can breathe through the left nostril; but she still feels pain of a dull, numb character on that side of the face, which she says is just like that felt when the tumour was growing. A fetid discharge escapes from the mouth and nose. The tumour returned, and she was admitted into the hospital; a second similar operation was done, and she was again discharged. The character of this tumour was the same as that of the first removed.

Case 2.—*Tumour of Face.*

Wm. C., aged sixty-eight, was admitted on March 31, 1875.

History.—Five years ago the patient first noticed a small lump about the size of a nut, in the cheek, half an inch from the zygomatic arch. The growth has been quite gradual until the last few months, since when it has increased rapidly in a forward and inward direction. Two years ago he had five teeth removed from the upper jaw, as it was thought that they were the cause of the growth, and rather severe bleeding seems to have occurred from the mouth afterwards. A year ago openings formed at the upper and at the lower part of the swelling, and discharged a considerable amount of matter. These continued open and discharging for about a month, and he thinks the commencement of the more rapid growth dates from their closure. It has been entirely unattended by any pain, and his general health has continued good. He has been of temperate habits, and has never had any illness. Has had irritability of the bladder. His mother died from a tumour in the abdomen; his family history is otherwise unimportant.

Condition on Admission.—A large tumour, the size of a small cocoanut, exists in right cheek, its upper limit being the zygomatic arch and lower margin of the orbit, and the lower and posterior limits correspond with the edge of the lower jaw. In front it forms a blunt-pointed projection at the angle of the mouth. On opening the mouth it is seen to project in between the alveolar margins of the upper and lower jaw, so as to reach beyond the median line. Its thickness is about seven inches. The skin over it is much stretched, with prominent veins ramifying in it, but is not adherent to the tumour, and the finger introduced into the corner of the mouth can be passed for a considerable distance between the cheek and the tumour. A raw surface exists at the most prominent part of the cheek, about the size of a florin. The tumour can be made to glide upon the jaw-bones by manipulation; and by fixing it, and asking the patient to open and shut his mouth, the jaw is found to move independently of the tumour. None of the teeth are loosened by the growth. A slight induration of a gland under the jaw can be felt. He does not suffer any pain. He does not complain of any impairment of his general health. He is a thin spare man, with a slightly cachectic appearance.

Ordered a good diet, with beer and brandy, but he requested leave to discontinue the stimulants, as they caused him to pass his urine so very frequently, especially at night.

On examining his urine, it was found to contain a trace of albumen and some granular and hyaline casts.

An operation was determined upon for the removal of the tumour, and was fixed for April 10; but on this morning he was found in a state of fever; temperature 104°, with quick pulse and rapid breathing, and a blush was seen around the opening on the cheek. He was immediately ordered tinct. ferri perchlor. ℳxxx., 4tis horis, and the operation postponed.

The blush continued to spread over the whole face, and the swelling became so great that the next day he could not open his eyes.

There was, in addition, very marked pulmonary disturbance, accompanied by very rapid breathing, but no pain, cough, or expectoration.

He became extremely prostrate, and the symptoms increased in severity, and he died April 14.

No post-mortem examination was held.

Case 3.—Disease of Femur and Knee-joint—Amputation of Thigh.

C. T. S., aged fourteen, admitted January 28, 1875.

History.—When about fifteen months old, an abscess formed near his knee, and was opened. This has always been discharging since. An operation for the removal of some diseased bone was done at Margate in November, 1873. The knee has been flexed as long as he can remember. He has had numerous glandular swellings and abscesses in different parts of the body—as both arms, the ankle-joint, groin, etc. His father died of consumption. A brother is constantly having abscesses break out. Two brothers died quite young. Mother alive, and suffers from asthma.

Condition on Admission.—He is a sickly-looking lad. A large flat ulcer exists on the inner side of his knee-joint, which communicates with the interior of the joint, and by pressure a yellowish-looking fluid escapes. Sinuses exist both on the inner and outer side of the thigh in its lower third, which lead down to dead bone. The knee-joint is anchylosed at about a right angle. He does not complain much of pain.

He was put upon a good diet, and ordered to take cod-liver oil and iodide of iron.

February 27.—The boy was anæsthetised with the view of removing the necrosed bone from the femur; but on examination it was found so extensively diseased that amputation was performed in the middle third of the thigh by cutting a short anterior flap from without, then transfixing and cutting a short posterior flap; these were reflected and freed from the bone for about two or three inches higher up, and the saw applied. When brought together the flaps looked very much as if the circular method of amputating had been adopted. The femur was increased in size, the medullary canal being obliterated, and was very hard and dense. A small piece of necrosed bone was picked out from the stump. The boy did not suffer much from shock. There was but very slight oozing from the stump.

29th.—Stump re-dressed. Primary adhesion has taken place to a considerable extent on the inner side; only small clots and sanious looking fluid pressed from it. He complained of very much pain when it was pressed. No startings complained of.

March 9.—The boy has made great progress, and seems to be getting fat. No unfavourable symptoms have occurred. The temperature has been a little fluctuating, but not rising higher than 101° or 102°. The stump is healing rapidly by granulations, except on the outer side, where there is a large sac from which a brown-coloured discharge escapes. It is syringed out with myrrh lotion.

Condition when Discharged.—Health much improved; stump nearly healed.

The Continental Cremation Movement.—The Conference of the German Cremation Societies, originally proposed to be held about the middle of April at Dresden, has had to be postponed in consequence of the large number of delegates that announced their arrival, which has rendered necessary a change in the programme. The Conference is now fixed for June.

Chloral Enemata in Infantile Convulsions.—M. Polaillon stated at the Paris Medical Society that, encouraged by the benefit he had derived from chloral in puerperal convulsions, he had in two cases administered it with success to children as an enema (three grains in five drachms of water). Calm sleep and a cessation of the convulsions followed, and a similar enema given twenty-four hours later completed the cure. M. de St. Germain believed chloral an eminently useful remedy in convulsive diseases, and related a case in which he had given it by the mouth to a child fourteen years old, the subject of tetanus, in doses increasing from three to twelve grammes per diem, the patient recovering on the seventeenth day. M. Blondeau had, with Trousseau, kept a child ten years of age under the influence of chloroform for twelve hours with success. M. Lolliot also prefers chloroform, and had kept a child three months of age under its influence during twenty-four hours. M. Lunier, in a case in which bromide of potassium had been without effect, found that chloral arrested both the convulsions and the accompanying fever. He thinks that, carefully employed, it is preferable to chloroform, but that we must be cautious in giving large doses.—*Union Méd.*, March 23.

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Medical Times and Gazette.

SATURDAY, APRIL 22, 1876.

THE DEBATE ON SYPHILIS.

No. II.

We cannot but notice that on one very important point—the nature of the syphilitic poison, the contagium itself—less information has been given during this debate than might have been expected after the impetus given in this direction by the discussion on germ theory last year. Mr. Simon was the only speaker who laid stress upon it, but what he said was said with all the clearness and philosophical spirit which characterise his utterances on all occasions: "It is an organic something, a growing something, a multiplying something." And Mr. Hutchinson, in his reply, developed this view in more crude, yet more appreciable terms, as "syphilitic yeast." He therefore accepts Dr. Burdon-Sanderson's dictum, that the contagium is "particulate." We have reason to believe that some more extended researches into the nature of syphilitic contagium may be looked for during the present year from the pathological department over which Mr. Simon presides. Meanwhile, we may point out that Lostorfer's observations have not met with the attention they deserve. His experiments go to show that syphilitic blood undergoes a quasi-fermentation peculiar to itself, together with the growth of certain corpuscles called after the discoverer; and in the debate on the germ theory of disease, Mr. Wagstaffe referred to the existence of peculiar corpuscles in the blood of most of the cases of syphilis examined.

Against the yeast theory, another was maintained by Sir William Jenner, who held that "potentiality of development, and not the state of the blood, not any appreciable change in the blood, is the real pathology of infantile syphilis." Whether this hypothesis is meant to apply to all syphilis, is not so clear. If so, we think with Mr. Hutchinson that it will not bear scrutiny, for experiment and analogy are entirely opposed to it.

The question "Is syphilis a blood disease?" received, perhaps, an undue share of attention; for opinions seemed, after all, to be pretty uniform on the subject. Syphilis is at first local—the poison is inserted, and remains for a time generating in the point of insertion; then the blood takes up the contagium and spreads it through the tissues rapidly, and it becomes a general infection, in which blood and tissues participate. This Mr. Hutchinson called a blood disease, and Sir William Gull a flesh-and-blood disease. But we believe hardly any two persons disagreed about the true pathology thus far—the contagium was in the blood, but not of it; and the blood was the carrier of it to the tissues. "Lues venerea totius substantiæ morbus est" (Fernel).

From this point, however, the opinions diverged. Mr. Hutchinson said that the contagium gradually died out of the blood, so that in a year or two syphilis was no longer a blood disease, though the poison might still be present in various parts or tissues, and remain there as local deposits, which might eventually grow by their own reproductive power into the gummata of the tertiary stage. In such tertiary stage the disease would, according to Mr. Hutchinson's view, be purely local.

It was against this hypothesis, and against the arguments brought forward in support of it, that most of the speakers raised their voices. Sir James Paget was apparently the only authority who subscribed to this local theory fully, and even his adhesion is weakened by occasional expressions of doubt. The strongest arguments against the theory were, we think, advanced by Dr. Moxon and Mr. Thomas Smith, the former in one of the most amusing, and the latter in one of the most critical speeches of the debate. If we mention the chief grounds for disbelief in the local theory of tertiary disease it is because the subject is practically of the greatest importance. For if it be local, why not treat it locally, or excise a tertiary sore? The chief arguments against the theory are that the gummatous deposits, which we look upon as characteristic of the tertiary stage of syphilis, often present themselves in the earlier or secondary period, when the disease is decidedly contagious—when it is allowed to be a blood or blood-and-flesh disease; that hereditary transmission occurs in cases where tertiaries are existing in the parents; that tertiaries are curable only by the employment of internal remedies of the same nature as those found beneficial in the earlier stages of the disease.

Against these we have Mr. Hutchinson's, that syphilitic blood in the tertiary stage has never been successfully inoculated; that, after one or two years, syphilis is rarely transmissible; and that tertiary syphilis is rarely symmetrical.

We make no mention of analogy with other diseases, either for one view or the other, though very frequent allusion to this was made during the debate, for analogies may be twisted to serve any view, and analogy, even when most perfect, is no proof. Analogy is useful for illustration, but it is no *sequitur* argument. Analogies are rather apt to mislead, and in a search after truth we have to avoid with more than ordinary caution what are only semblances of reality. It is the substance of facts, not the shadow of analogies, that will give us knowledge.

Before looking at the results of the debate with regard to the question of relationship between the secondary and tertiary manifestations, let us look at what has been brought to view with regard to the symptoms of the various stages. Pathologically there is nothing new as to the primary sore—the question of dualism alone comes in here. As to the secondary, we have to notice that the experience of most speakers was in favour of no clear distinction of time or character between secondary and tertiary lesions. Still, for convenience sake, all seemed to accept the distinction, and no doubt this will still be done, but except as referring to time the term might be avoided. We understand what is meant by gumma—it has its anatomical characters, and it may appear early or late in the disease; but we understand only order of time by tertiary. Dr. Buzzard's observations, and those of Dr. Moxon, are valuable additions to our scanty array of facts indicating the parts most likely to be affected by syphilis in the later stages. As it stands now, a man may die of visceral syphilis in less than a year after the primary, but the average death-age of thirty-seven which Dr. Moxon gave can only be an approach to correctness, since the number of cases from which this average was taken was only small. That secondary lesions are very often unsymmetrical, and tertiary lesions often symmetrical, several speakers maintained, and we cannot but notice that Mr. Hutchinson in his reply rather ignored or gave scant notice to these experiences, so entirely at variance as they are with his own.

We had rather hoped to hear more than one speaker discuss the histology of the syphilitic lesions, but deficiency in numbers was made up by the exceedingly clear statement of Dr. Greenfield, who not only substantiated the recent opinions of Dr. Heubner, but went beyond them. Heubner showed that arteries become diseased in syphilis by means of a proliferation of the nuclei of the endothelium on their attached surface—*i.e.*, towards the fenestrated layer of the middle coat,—and not, as usually said, by disease of the outer coat. Dr. Greenfield now maintained that the gummata and syphilitic infiltrations generally start in the perivascular tissues, that there is proliferation in the outer coats and also in the endothelium, and that this cell-growth goes on to the formation of masses, which are the gummata.

THE BIRMINGHAM IMPROVEMENT SCHEME.

The earnestness and energy of the Corporation and people of Birmingham certainly have generally none of the characteristics of what used to be called "Brummagem ware" about them. They have all the true ring and qualities of the most genuine metal; and these qualities Birmingham is displaying to the full in the manner in which it is endeavouring to take advantage of the Artisans' Dwellings Act. We some time ago noted, for the information of our readers, that the Corporation were planning a very extensive Improvement Scheme. They have now completed it, and an Inspector from the Local Government Board has just concluded a minute inquiry into it. He held four long sittings, during which a great number of professional and other witnesses were examined, and he also made several careful personal inspections of the condemned areas; and as this is the first inquiry held under the Act, the proceedings, which were published in very full detail in the *Times* of April 15, will, no doubt, be studied with much care and interest. The scheme deals with some ninety-three acres within the city, and involves the expenditure of about £2,000,000 sterling. During the inquiry it was shown by Mr. Alderman Chamberlain, the energetic Mayor of Birmingham, and Dr. Alfred Hill, the Borough Analyst and Medical Officer of Health, that in the area with which it is proposed to deal there are about 4000 houses, with a population of 18,000; that there are "houses built in close proximity to the backs of other houses; built within a few feet of dead walls; built with insufficient room-space; built over and close to privies, middens, and other abominations; and built under conditions in which proper light, air, ventilation, common decency, or any pretence to sanitary condition, became absolutely impossible"; and that while the annual death-rate for Birmingham is about twenty-two per 1000, the annual death-rate for the last three years had varied in different streets in the condemned districts from twenty-eight to ninety-seven per 1000. It is specially instructive to note that these evils of excessive death-rate—and, of course, excessive sickness—are not due to any serious over-

crowding, for the population averages only about 200 persons to an acre, and four and a half to a house—a rate of density of population that is, we need not say, far less than that which is to be found in many parts of London, and of other large cities. Yet, the houses being built so as to prevent all proper access of air and light, being very imperfectly provided with conveniences, and being built over or close to privies, middens, and ashpits, the death-rate rises to the enormous height of ninety-seven per 1000. According to the improvement scheme, it is proposed to run right though this unhealthy district a great main street, twenty-two yards in width, opening it up by means of that street and other approaches for the purposes of ventilation and health, and to repair and ventilate existing dwellings, or to destroy them altogether, according to the sanitary requirements. The existing streets and courts are to be swept away, the complete ventilation of the whole area to be insured, and free communication to be established with the healthier part of the town. But the work is to be done gradually, being extended over a considerable period. No wholesale destruction of property is intended, but it is proposed to commence building houses for the working classes before any are pulled down on the land to be acquired for the purpose; and the plan is to proceed block by block, in such a manner that as the work of demolition goes on the supply of new house-room shall be continually in excess of the actual need. According to the architect's statement, every house is to have thorough ventilation, and is to be complete in itself, with proper closet, scullery, living-room, and one bed-room at least; and while accommodation can, if necessary, be made in the area for four times the number of the working classes that will be displaced, the present intention is to leave so much free room that only about double the number will be provided for; and the Corporation believe that they will be able to let the houses at rentals of from 3s. to 7s. a week.

The scheme of the Corporation is, indisputably, a very bold one, but it has been planned wisely as well as boldly; and we are entirely in accord with the Mayor in thinking that it is "a scheme of more than local importance, because if it is shown that it can be carried out without excessive and immoderate outlay, the example will be most extensively followed elsewhere, to the great advantage of the artisan classes throughout the kingdom, and their moral and physical elevation." Mr. Chamberlain is fully convinced of what we have for long earnestly insisted on in these pages—that unless decent and healthy homes are provided for the working classes, all our educational and philanthropic work will, practically, be in vain; and his concluding argument in support of the Birmingham Improvement Scheme was, that "nothing is shown more clearly by modern experience, than that sanitary reform must go hand-in-hand with the other efforts for the improvement of the condition of the masses of the people." Unfortunately, however, it is questioned whether Mr. Cross's "Artisans' Dwellings Act" can be used to carry out such a scheme of improvement as the Birmingham one, and though it is proverbially easy for a lawyer to drive a coach-and-six through any Act of Parliament, sanitary reformers may find it too hard a task to bend that one to help them in carrying out large schemes of general improvement. It was objected before the Inspector that the Act only gives power to deal with such portions of a given area as have been condemned as absolutely unhealthy, and does not grant compulsory power for such auxiliary improvements as the general reconstruction of streets within the area; that in the case of a small unhealthy area in the midst of a block of buildings, the local authority has power to take that area and rearrange it, to widen any existing approach, and, if necessary, to strike out a new street into an existing adjacent one, in order that the area may be ventilated; but that they have no power under the Act to make new streets, except such as may be necessary for the purpose of dealing with the unhealthy area itself; and that it had never been contemplated by the Legislature that the Act should apply to the construction of a new street such as that proposed in the improvement part of the scheme of the Corporation. To all this, it was replied that by far the greatest part of the area—"namely, at least ninety acres out of the ninety-three included in the scheme"—was in an unhealthy condition within the meaning of the Act; and that it is the duty of the local authority, on receiving the official representation, to make a scheme for the improvement, not of the houses, but of the whole area within which such houses were situated. The Inspector, however, seemed inclined to the view of the objectors to the scheme, though he admits the advantage of "some scheme of the kind proposed," and expressed himself as being quite sure that an improved scheme would be a great advantage to the town. It must be hoped that the confirming authority will feel able to support the views of the Town Council of Birmingham, and to construe the Act as giving power to carry out their scheme—a scheme for not only building good houses for artisans, but also for the construction of broad streets and good approaches, for placing the improved dwellings in improved and wide streets, and so insuring the free access of light and air. Such a scheme might perhaps be carried out in Birmingham, "with the consent and approbation of all parties," even should the Act of Parliament fail to give compulsory powers; but the failure of the Act to give the power asked for would in most places be a fatal blow to all similarly large and comprehensive plans of improvement.

THE MIDWIFERY LICENCE OF THE ROYAL COLLEGE OF SURGEONS.

At the last meeting of the Council of the Royal College of Surgeons it was determined to postpone the election of Examiners in Midwifery to some future meeting of the Council. It will be recollected that the three "expert" members of the Board of Examiners in Midwifery had all resigned office, and that Drs. T. Snow Beck, F.R.S., and Graily Hewitt had been nominated for two of the vacancies. The election of these gentlemen was one of the matters before the Council on the 13th inst., but when it came on, a letter was read from Dr. Graily Hewitt withdrawing his name; and thus for the three vacant chairs there remained one candidate only. In addition to—and, we suppose we might say, partly as an effect of—this *reductio ad absurdum*, the Committee on the Regulations for Admission to the Examination for the Certificate of Qualification in Midwifery sent to the Council a report, in which they recommended that the three ladies whom the Council had decided to admit to examination—Mesdames Jex-Blake, Thorne, and Peachey—should be informed that as the Midwifery Board of Examination no longer exists, or at least that as the members of the Board of Examiners in Midwifery had resigned their offices, the Council are obliged to postpone the holding of examinations for the certificate of qualification in midwifery. The Committee do not mention the fact which constitutes the crowning difficulty of the situation—namely, that it had not been found possible to get the vacated offices accepted by men of sufficiently recognised reputation and status in the profession. The position is a very curious one for the Council to have been reduced to, and one that must, we suppose, have been quite unexpected. But though we have all along held that they were making a grave mistake in admitting as candidates for their qualification in midwifery persons who had not complied with their regulations, it must be admitted on all hands that they have loyally endeavoured to fulfil what they conceived to be their duty. The opinion of the profession has, however, been against them; and it having been found im-

possible to reconstitute the Board of Examiners in Midwifery so long as the possession of the certificate of that Board only admits the holder of it to the Medical Register, it seemed necessary to do something to relieve the dead-lock thereby caused. The Committee therefore further advised that the President and Vice-Presidents of the Council "be deputed to request an interview with the Lord President of the Privy Council, for the purpose of stating to his Grace the difficulty which the Council finds in fulfilling the duty imposed on it by the 17th clause of the Charter of 15th Vict.; and of suggesting that the names of persons holding no other qualification to practise than that of a certificate or licence in Midwifery, should be placed in a separate list in the Medical Register." We cannot pay the Council of the College the compliment of saying that this seems to us a happy attempt to solve the difficulty. The opposition to the proceedings of the Council in this matter has its root in the opinion that, for the sake of the dignity of the profession, and for the safety of the public, none but fully qualified medical persons ought to be able to find place on the Medical Register. And it is objected that, while the possession of the College licence in midwifery alone does not give proof that the holder of it has that full degree of knowledge and skill in medicine and surgery which is held to be essential for the safe practice of the healing art, its possession without any other qualification does admit persons to the Medical Register, and they will thereby "acquire a practical, if not a legal, right to practise far beyond the limits of their qualification." Now, we do not see that the placing of such persons in "a separate list in the Medical Register" will at all meet these objections. The public will not recognise the difference; in their eyes such persons will be on "The Medical Register," will still be registered medical practitioners, and will, as before, acquire a practical right to practise beyond the limits of their qualification. It would be more to the purpose were the College to advise the establishment of a register of skilled midwives. On such a register persons who only hold a qualification in midwifery would be rightly and usefully placed; but on the Medical Register they are dangerously misplaced.

THE WEEK.

TOPICS OF THE DAY.

At the meeting of the City Commission of Sewers, last week, Dr. Sedgwick Saunders, the Medical Officer of Health for the City, stated that, his attention having been directed to an assertion recently made in a public journal, that there was at the present moment a large quantity of putrid, adulterated, and unsound teas lying in bonded warehouses within the boundaries of the City of London, he had investigated the matter. Samples had been obtained of five varieties of the unwholesome trash. The first represented 250 chests of redried leaves; it had a faint and musty odour, and contained only 18·20 per cent. of extractive matter, and 5·5 of ash chemically. The microscope showed that it was adulterated with colouring material, foreign vegetable matter, and sand. The next sample represented 354 half-chests of dust; it consisted of fine dust of tea and foreign ingredients, the extractive matter being 26·50 per cent., and ash 13·10 per cent. It was adulterated with much vegetable matter, some colouring substance, and sand to a large extent. The third sample consisted of 243 chests of congou of a foul and putrid odour, and was adulterated with particles of quartz, foreign vegetable matter, and minute metallic particles, with a little artificial colouring matter. The fourth sample represented 126 chests of tea; it was dirty-looking stuff, and contained stones larger than peas much fine dust, and metallic earth. The last sample represented the saved and redried tea from the *Gordon Castle*, which was wrecked off the coast of Portugal eighteen months since. It was stated on responsible authority that 100 tons of the stuff were brought to this country, and that 1000 chests of it still remained; it contained an abnormally high ash, 7·7 per cent., and was adulterated with sand. All these teas were imported into this country prior to January 1 last, and therefore her Majesty's Customs were powerless to prevent their sale. It became, therefore, the duty of the sanitary authority to interpose to prevent further traffic in the same upon the evidence now afforded that they were unfit for human food. Dr. Saunders therefore recommended that the solicitor to the Commission be instructed to take such steps as he might deem expedient for the protection of the public, particularly as he had been informed that large packages of the tea had been sold within the last week at 4½d per lb. He was further credibly assured that many tons of damaged teas had within the last year or two been taken out to sea and sunk in order to avoid the payment of the Customs duty, such tea being valueless. The recommendation of the Medical Officer of Health was adopted.

Our contemporary *Iron* remarks that the decrease of atmospheric pressure, which last week unloosed the winds above ground, and probably occasioned a great amount of loss and damage on land and sea, has been no less a source of peril to the miners. The damage in coal-mines, consequent especially on the sudden fall of the mercury in the barometer-tube, is occasioned in this wise:—When the glass is high, and the pressure of the superincumbent atmosphere correspondingly great, the dangerous carburetted hydrogen is prevented from issuing from the walls and sides of the coal-seam; when the pressure is suddenly lessened, the gas escapes from numberless chinks and crannies, and accumulating sometimes very rapidly, until it reaches the proportion sufficient with common air to produce an explosive compound, the naked light that is harmless under more favourable conditions suddenly takes effect, and a deadly catastrophe is the result. In this way the barometer and barometric warnings are almost as useful to the coal-miner as they are to the mariner and fisherman.

The attention of army medical officers has been directed by a War Office Circular to the necessity which exists for their exercising great caution in the examination of recruits for the future, both as to their physical condition, and their mental capacity. This caution has been promulgated in consequence of the large number of soldiers who have recently been discharged from the army on account of physical debility, after having served for only a short time. The War Office authorities have also issued another Circular, which grants a slight but appreciable boon to the rank and file of the army, by directing that the expense of a soldier's washing while in hospital, which has hitherto been a charge against the soldier himself, shall in future be paid for out of the public funds.

It is singular to note how many of the difficulties which lie in the way of those who endeavour to bring about sanitary reform are dictated by vested interests or pig-headed obstinacy. The bad state of the water supplied by Aldgate Pump has again been brought to the notice of the Corporation authorities by the Medical Officer of Health for the City and Professor Wanklyn; they state that the water, which is in very much the same condition as it was last year, contains an unusual quantity of solids in solution—namely, about five times as much as ordinary London drinking-water. The specially objectionable peculiarity of the water from the Aldgate Pump is that it is charged with effete organic matter, as is shown by the quantity of albuminoid ammonia which it yields, and also by the excessive quantities of free ammonia and of chlorine which it contains. Professor Wanklyn says—"Some years ago I made an analysis of the sewage taken from the Fleet Ditch Sewer. If I were called upon to make an imitation of the water flowing from Aldgate Pump, I might submit

the sewage of the Fleet Ditch to a slight filtration, and have a fair imitation of the produce of the Aldgate Pump. It is hardly necessary to state that such water is not a safe beverage at any time, and that in periods of epidemic disease it is highly dangerous. This pump ought to have been closed long ago on sanitary grounds." The Medical Officer of Health earnestly entreats that prompt action may be taken in the matter, suggesting that to obviate any inconvenience to the public a stand-pipe might be erected on the spot to be supplied on the constant service with the New River water, or the pump itself might give place to a drinking-fountain. Acting under these representations the Commissioners of Sewers will forthwith put themselves in communication with the ward and parochial authorities, and take such other steps as may be necessary for the closing—compulsorily, if need be—of the pump.

The duties of urban and rural sanitary authorities are not entirely free from vexations and annoyances—a fact rather pointedly illustrated in the case of the Local Sanitary Authority of Slough. Some years ago the Local Board there devised a scheme of drainage, and, following the example of numerous towns along the Thames Valley, proposed to convey the sewage into the river. The scheme was sanctioned by Government; the town was completely sewered the system terminating at a point near Upton Church, about a mile from the Thames. At this juncture the Thames Conservancy Act was passed, and the proposal to drain into the Thames was absolutely rejected. Thus matters have remained ever since, the town being completely sewered without an outfall. For ten years the Board have been casting about for a site on which to treat the sewage; negotiations have been opened with every large holder of land in the vicinity, but downright refusals or exorbitant demands have met them in each case. At length they had fondly hoped their purpose was accomplished: a piece of land belonging to Mr. Charsley, the county coroner, had been placed at their disposal, the terms agreed upon, the application put forward to the Local Government Board to send down its inspector to report, when, behold! notice has been given by the Woods and Forests Office of opposition on the part of the Crown, the land in question, which is intended to be used as a sewage farm, being about half a mile only from Windsor Castle. The authorities of Eton College are also up in arms, as one extremity of the land selected extends to within about 400 yards of the Eton playing-fields. With these powerful opponents in the background, we fear the Local Board of Slough will have to look out for some other locality.

Letters from the East India squadron state that there has been a serious increase of small-pox at Bombay and among the crews which have been stationed off that port. Several deaths have occurred among the seamen of the fleet; and among the officers Mr. Charles H. Hills, Paymaster of her Majesty's ship *Doris*, has fallen a victim. The *Undaunted* and the *Doris* are both ordered to the Mauritius for change, leaving many men behind in the special sick-quarters established at Butcher's Island.

By the latest advices received from Rio, it would appear that the recent outbreak of yellow fever in that district has been severe in its results. The deaths from this disease have averaged between fifty and sixty a day. On the 20th of last month the number was fifty-eight, with six from typhoid or pernicious fever, out of a total of ninety-two. On the previous day, however, the deaths from fever were seventy, out of a total mortality of 110. Immigrants arriving just now are taken at once on board a receiving-transport, and sent up to the mountains by night; whilst for the poor of the city, foreign or native, several fever hospitals have been established by the Government in healthy out-districts of the city.

The railway return of killed and wounded for the year 1875 has just been published. The total is quite enough to compel attention to continuous brake-power, and extra precautions of all kinds. From the returns rendered to the Board of Trade during the year in question, in England and Wales the killed numbered 1061, the injured 5262; in Scotland, killed 188, injured 437; and in Ireland, killed 41, injured 56—making a total of 1290 killed and 5755 injured in one short year. And we are fain to ask ourselves the question, How many out of this number might have been saved had moderate caution been observed?

We much regret having to announce that Sir William Wilde died at his residence, Merrion-square, Dublin, on Wednesday evening, the 19th inst. We shall give a notice of the life and labours of this distinguished surgeon and oculist next week.

QUARTERLY MEETING OF THE ROYAL COLLEGE OF SURGEONS.

At the quarterly meeting of the Council of the College, on the 13th inst., Mr. T. B. Curling, F.R.S., was declared to have been duly re-elected a member of the Court of Examiners, and signed the by-laws. He was elected in 1871.

As recommended by the Jacksonian Committee, the Council decided that the subject for next year's prize should be "The Pathology and Treatment of Lymphoma."

The amended report of the Committee on the regulations relating to the education and examination of candidates for the diploma of Fellow was read and approved. This document, which will no doubt be read with some interest, will be found elsewhere in our columns.

After the presentation of this report, the Council proceeded to the election of an Examiner in Medicine, in the vacancy occasioned by the resignation of Dr. Samuel Wilks, F.R.S., of Guy's Hospital, who has so efficiently performed the duties of the high office since its establishment in 1868. Dr. George Johnson had been elected to the vacant office, but resigned without entering on the duties; and now Dr. Edward Henry Sieveking, Physician Extraordinary to her Majesty the Queen, and Physician to St. Mary's Hospital, was elected—an appointment which will give general satisfaction, as Dr. Sieveking brings the experience derived from a similar appointment at the sister College of Physicians.

The subject relating to the resignations of the members of the Midwifery Board was discussed, when a special report of the Committee on the regulations for admission to examination for the certificate of qualification in midwifery was read, of which the following is a copy:—

"The Committee having been summoned at the request of the President, and having received from him the report of the resignation of Drs. Arthur Farre and Priestley, and a letter addressed to him by the President of the Medical Council, enclosing a copy of resolutions passed by the Obstetrical Society, begs leave to recommend to the Council—1. That Mesdames Jex-Blake, Thorne, and Peachey be informed that the members of the Board of Examiners in Midwifery having resigned their offices, the Council are obliged to postpone the holding of examinations for certificates of qualification in midwifery. 2. That the President and Vice-Presidents be deputed to request an interview with the Lord President of the Privy Council, for the purpose of stating to his Grace the difficulty which their Council finds in fulfilling the duty imposed on it by the 17th clause of the Charter of the 15th Victoria, and of suggesting that the names of persons holding no other qualification to practise than that of a certificate or licence in midwifery should be placed in a separate list in the Medical Register."

A letter was then read from Dr. Graily Hewitt, withdrawing his name as a candidate for either of the vacant chairs. It was then decided that the election of Examiners in Midwifery should be postponed to a future meeting of the Council.

The President reported the result of the conference of the

medical authorities in England on the amended scheme for an Examining Board in England, and stated that a meeting of the Council would be summoned for the 21st inst. to consider such scheme.

The following members of the College were then elected Fellows, viz. :—Messrs. James Hough, L.S.A., Trumpington-street, Cambridge, diploma of membership dated March 26, 1841; John Leigh, L.S.A., Llanfabon, Pontypridd, December 21, 1841; and William Pollard, L.S.A., Torquay, April 21, 1843.

MEDICAL DEFENCE ASSOCIATION.

A MEETING of the Council of the Medical Defence Association was held at the residence of the President, Dr. Richardson, F.R.S., on the 7th inst. There was a good attendance of members. A letter was read from a member residing in Over Darwen, in Lancashire, directing attention to a case in which an unqualified person had atteuded a twin-labour, but had allowed one child to remain unborn, and the patient died on the third day after the birth of the first child. The Secretary was requested to acknowledge the receipt of the letter, and suggest the formation of a branch of the Association in that part of Lancashire, in order that legal proceedings might be taken in all such eases as might occur in that district. Complaints were also received from two provincial practitioners respecting persons who are practising surgery without legal qualification. The Secretary was requested to communicate with the Council of the Royal College of Surgeons, and ask whether they will allow the Association to prosecute in such cases under the powers contained in the College Charter. A letter was read from the Secretary of the West Cornwall Branch Association, reporting the recovery of a penalty of £20 from an unqualified practitioner named Rowe, who resides at Redruth. The Secretary was requested to write to the secretary of the above branch, and congratulate the local committee on the result of the case. Letters were read from the honorary secretaries of the Coventry Medico-Ethical Society aud the Devon and Exeter Medico-Chirurgical Society, expressing the desire of the members of the above bodies to become connected with the Defence Association. The Secretary reported that an influential meeting of medical practitioners had been held at Newcastle-on-Tyne, at which it was resolved to form a branch of the Defence Association for that town and district. It having been reported that a person—whose name it is desirable not to mention at present—is practising medicine without legal qualification in the neighbourhood of Hatton-garden, the solicitors to the Association were instructed to prepare the evidence with a view to prosecution under the Apothecaries Act. A handbill, said to have been issued by a person who, according to Churchill's "Medical Directory," is a member of the Council of the British Medical Association, and who practises homœopathy in the East-end, was submitted to the notice of the Council, but it was decided that the matter was one that scarcely came within the province of the Defence Association, and the Secretary was requested to send a copy of the handbill to the Secretary of the Council of the British Medical Association.

THE SPREAD OF INFECTION.

A MEMORIAL to the Local Government Board, which has been extensively adopted by sanitary authorities, asks the Government to amend the Public Health Act so far as to make it generally compulsory to give notice to the medical officer of health, or inspector of nuisances, on the occurrence of any case of infectious disease. The authorities urge the difficulties they experience in preventing epidemics, from the fact that friends and relatives of the sufferers frequently try to conceal the nature of the disease, and that the medical men in attendance hesitate to give notice of its existence, from a feeling that it would be a breach of confidence in them to do so. The result is that days, and sometimes weeks, are lost before the sanitary authorities become aware of the outbreak. In the meantime there is frequently an utter neglect of measures of disinfection and other necessary precautions, and the disease is spread to fresh persons, by whom it is communicated to others: and thus the infection, which might have been confined to a single house, gives rise to a great epidemic, costing scores or hundreds of lives. The memorialists, therefore, propose that it shall be obligatory on every householder (including innkeepers) to give notice to the inspector of nuisances for his district of the existence of any infectious disease in his house, whether the person attacked be a member of his family, a lodger, or a servaut, within twenty-four hours of the outbreak becoming known to him; and that failure to give such notice shall render the offender liable to a fine by justices. It is further proposed that every medical man in attendance on an infectious case shall be also compelled, under penalty, to give a similar notice, for which he shall be entitled to receive a fee from the local authority. There would be considerable difficulty, no doubt, in establishing the system proposed, especially the part of it which provides for this payment from local funds to private medical attendants; but such difficulties ought not to be insuperable. Every farmer whose cow is attacked with rinderpest is at present bound by law, under heavy penalty, to notify the fact to the local authority; and it is hardly flattering to human nature to suppose that what can be done in the case of animals cannot be efficiently carried out for the protection of mankind. Moreover, sanitary legislatiou is gaining ground every day, and if the arrangement be once established we have little doubt that it will speedily take root and flourish for the good of the community.

THE DEATH OF TRAUBE.

IN a recent number of the *Berliner Klinische Woehenschrift* we find a short but touching *éloge* of Traube from the pen of Virchow. In it he gives a brief sketch of the early life of that distinguished physiciau, and places him in a position almost parallel with that of Laennec and Skoda. Some of the earliest of Traube's work was undertaken in conjunction with Virchow, Rühle, and Reinhardt; and he early turned his attention to the subject of auscultation. His great difficulty, however, seems to have been to obtain that amount of clinical experience which is absolutely necessary to make a man a great physician; and it was not for many years that he was able to attain his object. When, however, his time came he was fully prepared for his post, and what justice he did to it is known to us all. His latest contributions to practical medicine are contained in the recent *Charité-Annalen*, and some of these we shall shortly be prepared to lay before our readers. His name will ever be remembered in connexion with digitalis and its action, the functions of the vagus, and the mechanism of respiration generally. Moreover, as Virchow says in conclusion, "he was a stern self-critic and and a strenuous worker,—he whose long day's work is uow closed for ever. Honoured be his uame." Traube had for some time past suffered from heart disease, aud this latterly had considerably interfered with his labours, but such a sudden termination of them was hardly expected.

PRESENTATIONS TO DR. CRICHTON BROWNE.

ON the evening of Tuesday, the 18th inst., Dr. Crichtou Browne was entertained at a banquet given conjointly by the professional men of the West Riding of Yorkshire and the lay community of Wakefield and the neighbourhood. Lord Houghton was in the chair, and during the course of the evening several massive pieces of plate were presented to Dr. Crichton Browne by the representatives of the two bodies of subscribers, amidst many expressions of gratification at his promotion, and regret for the loss which the West Riding will

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sustain by his withdrawal from the management of its large Asylum. The banquet was numerously attended, especially by medical men. Mr. Spencer-Stanhope, in presenting the plate which had been subscribed for by the magistrates and lay community, expressed a hope that the Asylum would be conducted in the manner which had characterised the directorship of Dr. Crichton Browne, and commented especially on the fact that the institution as at present managed was one, not for detention, but for cure, and on the tendency which Dr. Browne had always shown to enable medical men in general to participate in the knowledge of observations made and treatment employed at the Asylum. Dr. Heaton, in making the presentation on behalf of the medical men of the West Riding, spoke specially of the great esteem in which Dr. Crichton Browne was held by his professional brethren, of the great services rendered by him to the Leeds Medical School, and of the manner in which he had always endeavoured to bring professional men together in kindly and improving social intercourse. The noble chairman supplemented the observations of both speakers by expressing his great personal regard for Dr. Browne. He felt certain that in the new and larger sphere in which he was to enter he would be neither unknown nor unappreciated. Dr. Crichton Browne, in returning thanks, referred in special terms to the direct relationship which has existed between the adoption of scientific principles into the treatment of the insane, and the development of the humane method, which contrasts so strongly with the brutality of early methods of asylum management. At the same time, he advocated the establishment of scientific grants to asylums as a means of securing very satisfactory returns for money invested in science. Amongst the other speakers were Mr. T. K. Sanderson, M.P., Dr. Clifford Allbutt, Dr. Major, and the Hon. and Rev. P. Y. Savile.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

The following report of the Committee recently appointed to consider the regulations relating to the education and examination of candidates for the diploma of Fellow of the College of Surgeons, was received and approved at a Council meeting held at the College of Surgeons on the 13th inst.:—

"The Committee reports to the Council that in its opinion it is expedient to make certain alterations in the regulations relating to admission to the examinations for the Fellowship, and with that object recommends to the Council the adoption of the following proposals, viz.:—1. That, subject to the following regulations, any Member of the College be admissible to examination for the Fellowship. 2. That there be separate and different examinations for Members of less than ten years' standing, and for Members of not less than ten years' standing. 3. That each of these examinations be in two parts, named respectively the first and the second part of the examination. 4. That Members of the College of less than ten years' standing be entitled to be admitted to the first part of the examination at any time after receiving the diploma of Member, and to the second part of the examination at any time after having passed the first part, on producing satisfactory evidence of having attained the age of twenty-five years, and of having been engaged not less than six years in the study (or study and practice) of their profession. *Note.*—Members of the College holding appointments in her Majesty's Service, who have passed the first part of the examination, shall be admissible, on a special vote of the Council, to the second part of the examination at any time on producing satisfactory evidence of having been engaged not less than six years in the study (or study and practice) of their profession. 5. That for Members of the College of less than ten years' standing the subjects of the first part of the examination be anatomy and physiology, and the elements of comparative anatomy and physiology; and that the subject of the second part of the examination be surgery. 6. That Members of the College of not less than ten years' standing be admissible to the first and second parts of their examination at the same time, or to the second part at any time after passing the first. 7. That the subject of the first part of the examination for Members of the College of not less than ten years' standing be surgical and regional anatomy, and that the subject of the second part of the examination be surgery. *Note.*—For candidates who are Members of less than ten years' standing the second part of the examination will include surgical anatomy and pathology; for those of not less than ten years' standing the second part of the examination will be chiefly in practical surgery. The Committee further reports to the Council that in its opinion it is advisable to retain the present regulations (see page 79 of Calendar) in regard to admission to the first part of the professional examination of candidates who, not being Members, shall pass the preliminary examination for the Fellowship; but recommends that in such preliminary examination candidates shall be required to pass in all the compulsory subjects, and in not less than four of the optional subjects required for the Membership of the College (see pages 71 and 72 of Calendar); and in addition to translate into English a passage from some Latin author not specially mentioned. The Committee is not prepared at present to recommend to the Council any special regulations with reference to persons holding other qualifications than that of Member of the College, being of opinion that it is inexpedient that any alterations should be made in the regulations in this respect, until some definite decision has been arrived at by the Council on the general principle to be in future applied to *ad eundem* admissions."

THE DANGERS OF WELL-WATER.

In his last monthly report, Dr. Whitmore, Medical Officer of Health for the parish of St. Marylebone, makes the following remarks on water taken from surface wells:—"The dangerous condition of the water taken from the pump at the corner of Great Portland-street and Chapel-street furnishes additional evidence of the fact that all the superficial springs in the parish are more or less polluted with sewage, and it is certain that there are no means of purifying them. With but one or two other exceptions all the pumps under the control of the Vestry have been removed long ago, and it is to be hoped that those which remain will soon follow; but there are still no inconsiderable number of private pumps situated in stables and others parts of owners' premises, which draw their water from similar sources, such water in a great many cases being used for drinking and domestic purposes. It is useless to explain to the owners of these pumps the risk and danger they incur from drinking this water. They at once point to its clear, cool, and sparkling condition as evidence of its purity, and refer triumphantly to the circumstance that for many years they and their families have drunk it without having experienced the slightest ill effects from doing so. All this is no doubt true, and confirmatory of a fact which now appears to be pretty clearly established—viz., that such diseases as cholera or fever will not be produced by the drinking of polluted water, unless the matter by which the water is polluted contains the specific germs of these diseases. But at any time sewage matter containing zymotic poison may percolate into a surface well, and, although it may be infinitesimal in amount it will suffice to produce zymotic disease, and an outbreak under such conditions may become very wide-spread and very fatal."

THE PUBLIC HEALTH (IRELAND) ACT.

The Local Government Board of Ireland have addressed a letter to the Guardians of the Nenagh Union, in which it is decided that in towns where the Town Commissioners are not the sanitary authority under the Public Health Act, they are nevertheless responsible for the cleansing of the streets, etc.; and that in default, the sanitary authority (in such a case the Board of Guardians of the Union in which the town is situated) can proceed against them as against a private individual. In taking legal proceedings against Town Commissioners, the Local Government Board consider that the preliminary notice should be served on the Clerk of the Commissioners; but the question as to who should be made defendant is left to the decision of the legal adviser of the Guardians.

ANOTHER SUCCESSFUL PROSECUTION BY THE MEDICAL DEFENCE ASSOCIATION.

THE West Cornwall Branch of the Medical Defence Association has just recovered the sum of £20 from a chemist named Rowe, who resides at Redruth, in the above county, for illegal medical practice. Rowe is the possessor of a Philadelphian diploma, under which he has for a considerable time called himself "Dr." Rowe, and practised rather extensively as a medical man. It will be remembered that a few months ago we reported a case of sudden death in which Rowe's evidence was received in the local coroner's court as if he were a qualified medical man. The action against Rowe was taken in the county court under the Apothecaries Act, and the defendant paid the full penalty that could be recovered under the Act into court a few days before the trial was to have taken place. This is the first case of prosecution by a provincial branch of the Defence Association; but we are informed that evidence is being collected in other cases of unqualified practice in the same district, and legal proceedings will be taken as soon as the necessary consent of the Apothecaries' Society has been obtained.

DEATH OF A WELL-KNOWN CHEMIST.

THE death is announced, at an advanced age, of Mr. Michael Donovan, whose name is familiar to medical men as the inventor of "Donovan's Solution." In his early career, Mr. Donovan devoted himself chiefly to the study of electricity and galvanism, and several of his papers on these subjects were published in the *Proceedings of the Royal Society*. As early as 1818, Mr. Donovan obtained a premium from the Royal Irish Academy for the best essay on "The Effects of the Discovery of Galvanism." He was also the author of a "Treatise on Chemistry" and a work entitled "Domestic Economy," both of which were published in "Lardner's Cabinet Cyclopædia." In addition to the solution which bears his name, Mr. Donovan invented the "Ung. Citrinum Fuscum," "Syrupus Cinchonæ," and other pharmaceutical preparations.

FUNERAL OF THE LATE MR. CAMPBELL DE MORGAN.

THE funeral of this well-known surgeon took place at Kensal-green Cemetery, on Tuesday, April 18. The funeral *cortége* left the house about eleven o'clock, and was followed by a large number of private carriages of the friends of the deceased. A considerable concourse of persons assembled at the cemetery; this was composed of past and present students, the resident and visiting staffs, and members of the weekly board, and governors of the Middlesex Hospital. There were also present Dr. Greenhow, Dr. Thompson, Mr. Hulke, Mr. Flowers, Mr. Frere, Mr. Forbes, Dr. Cooper Rose, Mr. Hyde Hills, Mr. Ross (Chairman of the Weekly Board of the Hospital), Captain Darley, Mr. Sibley, Dr. Stewart, Dr. Murchison, and many other well-known members of the profession. We are obliged to postpone until our next issue a biographical notice of Mr. De Morgan.

THE LATE DR. LETHEBY.

IN recognition of the eminent services rendered as Medical Officer of Health to the Commission, the City Commissioners of Sewers, at their meeting last week, passed the following resolution:—"That this Court has heard with feelings of great regret of the death of Dr. Letheby, who for a period of nearly twenty years filled the position of Medical Officer of Health of this Commission, not only to the thorough satisfaction of every member, but to the great advantage of the citizens of London. They refer with much gratification to his great punctuality, his eminent ability, and his invariable courtesy; and they beg very respectfully and very earnestly to tender to his bereaved widow the assurance of their deep condolence with her in the irreparable loss she has sustained."

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

(*Continued from page* 422.)

I DO not here intend to offer any exhaustive exposition of the reasons why I adopt precisely that order of sequence of which the Regulations are the authoritative expression. I may venture to give, however, a few more explanations with regard to the order of sequence which is directed to be observed in examining the organs of the abdomen.

a. For cleanliness' sake I examine the intestines last. To deal with the contents of the intestines is, in itself, a very disagreeable matter. Even with the greatest care, one can scarcely avoid soiling one's self, the instruments and receptacles, the subject, and the table on which it lies. I will say nothing about the sense of smell, though it is a great puzzle to me how it is that some persons, when making autopsies, seem to have completely lost this sense. There is no possible disadvantage in examining, as a rule, the intestines last; for all the other parts can be conveniently examined, removed, and dealt with without the intestines being interfered with. If, however, anyone attaches less importance to cleanliness,—if perhaps the physician is in a great hurry, and wishes especially to see the intestines examined,—there is no technical reason why this should not be done before meddling with the other viscera, for the intestines also can be removed without injuring the other parts. There is an exception in the case of the duodenum, inasmuch as the excretory ducts of the liver and pancreas open into it, and its removal is impossible without cutting through these ducts and even a portion of the pancreas.

b. The order of sequence which I adopt differs in one main point from that which was previously and formerly almost universally employed, inasmuch as I usually make the removal of the liver the last part but one of the examination. I am well aware that in so doing I depart essentially from the favourite custom. If the dissector places himself, as he usually does, on the right side of the body, having the head to his left, the liver is so immediately in front of his hand that it undoubtedly requires a sort of resignation to make up one's mind to leave it alone. But, irrespective of what I have already enlarged upon (that in the removal of the liver the large veins are injured, and, for the most part, the diaphragm as well), there is also this to be considered: that the hepato-duodenal ligament (the small omentum), and the tubes therein contained, especially the vena portæ and gall-duct, are injured more considerably and to greater disadvantage. I confess that these two last-mentioned structures are, in the great majority of cases, of no importance to the medical jurist, and if the order of sequence necessary for a clinical case were to be enjoined on him, it might certainly appear superfluous. On the other hand, however, it will be no disadvantage to him, and it will involve neither more time nor more trouble, whether he examines the liver first, or last but one; and even granting that the cases are but few in which the more correct method is requisite for the medico-legal investigation, this is quite a sufficient ground for requiring it to be universally adopted. For clinical investigation, the preservation of the hepato-duodenal ligament is of the greatest importance, because, if once divided, it is a mere chance if we succeed in replacing the parts in their natural position in such a way as to be able positively to elucidate their condition. It is here, however, that we have to look for thrombosis and obliterations of the vena portæ, and to estimate the condition, as regards perviousness, of the ductus communis choledochus, particularly of its intestinal portion, and also of the cystic and hepatic ducts. I may refer to a former paper of mine on these subjects. In my *Archives*, 1865, vol. xxxii. page 117, I have discussed the various conditions of the ductus communis choledochus and its intestinal portion, and have alluded to the importance of these for explaining the origination of jaundice; and in the *Transactions of the Würzburg Physico-Medical Society*, 1857, vol. vii. page 21, and in my "Gesammelten Abhandlungen," page 620, I have treated of

(a) From the *Charité-Annalen*.

obstructions of the vena portæ. The nature of the circumstances necessitates the following order of sequence in examining these parts. First we should open the duodenum, taking care to do so *in situ;* then determine its contents above and below the papilla biliaria; then this papilla should be examined and its contents gently pressed out; then, by pressing on the gall-bladder, we should determine the presence or absence of obstacles to the flow of bile; and, lastly, the ductus communis choledochus should be slit up. Then the vena cava should be examined; and, all this having been done, the liver should be removed. It is quite useless to pass a probe along the gall-duct, for our being able to introduce a probe into the orifice is no evidence whatever that the portio intestinalis was pervious during life.

The examination and opening of the stomach are closely connected with the above-mentioned operations. The simplest plan is to open the stomach at the same time as the duodenum, by continuing the incision; and this should, as a rule, be done *in situ*. Cases of poisoning, especially those which come under legal investigation, may require a different course. In other cases there is no danger in allowing the stomach to remain untouched until its turn comes. The spleen, the only organ closely connected with it, may, with moderate care, be so easily separated that there is no fear of causing damage. On the other hand, as is easily intelligible, the examination of the pancreas will follow that of the stomach and duodenum. The slight importance of this organ, in a pathologico-anatomical point of view, causes its examination to be of little consequence.

(*d.*) All the urinary organs should, as a matter of course, be examined one after the other. We take them, therefore, in this sequence—the kidneys, the ureters, the urinary bladder, and the urethra. At all events, their condition will in this way be much more attentively examined than if some other object of an entirely different nature be allowed to intrude itself while the examination is going on. It is also perfectly evident that the supra-renal capsules and the generative organs must be examined in connexion with the urinary organs. They are immediately connected, inasmuch as portions of the generative organs are portions also of the urinary organs, so that for the sake of continuity of plan, and also for convenience in the removal of the parts, the examination of the generative and of the urinary organs should be performed at one and the same time.

The order, therefore, which I adopt in examining the abdominal organs is as follows:—

1. The omentum.
2. The spleen.
3. The left kidney, supra-renal capsule, and ureter.
4. The right kidney, supra-renal capsule, and ureter.
5. The bladder, prostate gland, vesiculæ seminales, urethra.
6. (*a*) Testicles, spermatic cord, and penis.
   (*b*) Vagina, uterus, Fallopian tubes, ovaries, parametria.
7. The rectum.
8. The duodenum, portio intestinalis of the ductus communis choledochus.
9. Stomach.
10. Hepato-duodenal ligament, gall-ducts, vena portæ, gall-bladder, liver.
11. Pancreas, cœliac (semilunar) ganglia.
12. Mesentery, with its glands, vessels, etc.
13. Small and large intestine.
14. Retro-peritoneal lymphatic glands, receptaculum chyli, aorta, vena cava inferior.

However useful and convenient it may be to keep to such a regular plan, it is impracticable in a small number of cases, in which considerable changes have taken place in the relations and connexions of the parts. Chronic adhesive peritonitis, whether occurring *per se*, in a simple, tuberculous, cancerous, or other form, or connected with tumours (*e.g.*, ovarian), or with aneurism of the abdominal aorta, usually makes it impossible to dispense with the considerations peculiar to the case, and to adopt any general rule. Even in such cases it will be advisable to complete in the usual way the examination of those organs, which can be easily reached, and thus to lessen gradually the special alterations which are requisite. But a departure from the rule is finally requisite, because it is, generally speaking, most convenient to remove together the remainder of the organs, and to examine them more particularly outside the body, in whatever way is the easiest.

So much with regard to the order of sequence in which the organs are to be examined, and the method of dissection.

The answer to the question, how to make incisions, belongs to quite another side of the subject. What I have to say in reference to this, is the primary result of simple experience, acquired by frequent practice and constant endeavours directed towards simplifying the operative portion of our task. But also, in addition to this, I endeavoured to account to myself for the reasons for my usual *modus operandi*. Thus became developed a systematic practice of the proper method of making incisions. The description, which I shall now give, is based upon grounds which were originally purely empirical, and which have only gradually become modified by additional theoretical considerations. In the first place, I assert emphatically that there must be an essential difference between the method of making incisions for pathological purposes and that which is adapted for the anatomical theatre or dissecting-room. In the ordinary way of making preparations, the young student is taught to hold his knife as he would a pen. The object is to make short fine cuts in order to expose muscles, nerves, and vessels, and to follow them out and show them clearly. Holding the knife in this way, the young student keeps his fingers in the position which became habitual to him, up to a certain point, when he was taught to write. The movements are confined almost entirely to the joints of the fingers—at any rate, to those of the hand. The arm itself is fixed generally in such a way that the elbow-joint is brought close to the trunk, and often to the thorax, unless, indeed, it rests on the crest of the ilium. In this way, short quick cuts may be made with great steadiness, the result of which is that neatness of appearance in a preparation which is appreciated in a moment by the sharp glance of the anatomical teacher. If such fine work be required for pathological anatomy—and this is the case pretty often,—not only is there no objection to this method, but it is absolutely requisite.

This, however, must not be considered to be the rule. An autopsy, in which short incisions only are employed, is an unduly tedious affair, and both the pathological anatomist and the medical jurist have far less time at their disposal than is the case with the descriptive anatomist. On the other hand, numerous short incisions cause the larger organs to be too much divided, and partial cuts in no way assist the inspection, and appear to be adapted rather for kitchen purposes than for those of science. In examinations for pathological purposes, we save time and gain increased insight and clearness by making free incisions, and, when possible, such as involve the whole of the organ to be examined.

When this had become evident, I very soon perceived the necessity for holding the knife in a different manner. For all ordinary purposes of pathological dissection I now grasp the handle of the knife in the palm of my hand, so that when I stretch out my arm the blade appears as a direct prolongation. I fix then, relatively, if not absolutely, the joints of the fingers and hand, and make the cutting movements with the entire arm, so that the principal movements occur in the shoulder-joint, the secondary ones in the elbow-joint. In this way I am able to make long and useful incisions, and smooth ones as well, for I can utilise the whole force of the arm, and especially of the muscles about the shoulder; and it is only on surfaces produced by such incisions as these that we are able to see anything really satisfactorily.

After I had got so far, I then perceived that in many round-about ways I had reached the point which our predecessors in dissection, the butchers, had so long ago attained. I was not a little astonished when one day, not very long ago, I went into a slaughterhouse and watched the men at their work. I then learned something else, which I have since brought into practice—viz., that the knife should be wider and longer than that commonly used.

A knife of such length and breadth, so well adapted for the butcher's purpose, is certainly inadmissible for ours, and it is only for the brain, and even then only in particularly important cases, that we require a very large flat-bladed knife which exceeds the dimensions even of those used in the slaughter-house. But a knife for making sections should always be very considerably larger than the ordinary knife used in making preparations. The latter is too short, both in the handle and in the blade, for making really large cuts. On the other hand, the blade is still too large for ordinary preparation purposes; for when held as a pen the point only of the knife is used—a portion measuring scarcely fifteen millimetres. The rest of the blade is so superfluous that the beginner in pathological technics, who comes to me to learn the art of dissecting, immediately takes the knife (which I place in his

hand) between his *fingers*, and then moves them in a wriggling way forwards on the handle, until their points touch the steel of the blade. It is then naturally impossible to use the whole of the edge, for a large part of it is covered by the hand. As the dissector now finds himself confined to the point of his knife, and can use no other part of it, it is easy to understand that he very soon blunts it, and whereas a good pathological anatomist is perfectly able to dissect all the viscera of one subject, or even of two, with one knife, a pathological "layman," holding his knife as he would a pen, requires three or four knives for one autopsy.

The modified section-knife (*Secirmesser*) which I have introduced differs from the ordinary dissecting-knife (*Präparirmesser*) both in the blade and handle. Both these latter are not only longer, but stronger—that is, thicker and broader. The anterior part of the blade does not form an acute angle, but is rounded off; the very broad surface terminates with a considerable curve in the slightly projecting point. Thus, not only is the cutting edge still further lengthened, but, at the same time, the risk of pricking one's self or others, or of getting a prick from others, during the examination is considerably diminished. The number of dangerous wounds (and pricks are always more dangerous than cuts) has been very much diminished among us since we have adopted this useful kind of knife. As regards the back part of the knife, the blade is narrow and strong near its insertion, for this portion of it is generally not much used; the handle is flatter posteriorly, and much curved inwards from both edges, so that it may lie more conveniently in the hand. Such a knife is, in its original condition, before it has been ground down, twenty-three to twenty-four centimetres long, of which nine centimetres and a half belong to the blade.

This knife should really be used for making incisions with a traction movement. It should not be pressed or pushed into the parts, but should be drawn through them with comparative rapidity. When necessary, we may employ the whole force of the muscles of the shoulder in this movement, and much power can be thus exerted. But the greater the force employed, the quicker must be the movement, or else the parts are liable to become crushed. Nowhere can this be better proved than in the brain. Even a very sharp knife pressed into the brain crushes the parts to a certain extent, and the resulting cut surface is, at least in some measure, useless for examination; often, indeed, the appearance it presents leads directly to false conclusions.

An incision made by traction differs from one made by pressure primarily in this: that in the former every point of the edge glides over or through a certain spot in the organ; whereas in the latter the same point in the edge always presses upon the same spot of the organ. Whoever chooses to make incisions by pressure always, possibly involuntarily, places his forefinger on the back of the knife. He who makes incisions by traction places his forefinger on the surface of the handle, or he grasps the whole handle. At all events, it is a good practice, especially for beginners, to place the handle between the thumb and finger only, so that great pressure is impossible.

Where it is necessary really to exercise great pressure, we require another kind of knife—namely, one with a broader back, to which the forefinger or even the thumb may be conveniently applied. I have for this purpose made a further improvement on the ordinary cartilage-knife: the one which I use has a thicker and more bulging blade, and a much stronger handle. This latter is formed of two strong plates of wood or horn, one of these being applied to each side of a flat prolongation of the blade, reaching the entire length of the handle. The back of such a knife, sixteen millimetres broad, is a convenient support when pressure is required. The free end also of the handle is flattened and broad, so that for certain purposes, such as for separating the sterno-clavicular joint, it can be placed vertically in the palm of the hand, and can be conveniently used for making punctures.

I therefore require for each examination three different knives—an ordinary dissecting-knife (*Präparirmesser*), a peculiar section-knife (*Secirmesser*), and a very strong cartilage-knife. I use the last for all the coarser sort of work—not merely for dividing cartilages, but also for large incisions through skin, muscle, and joints. The section-knife (*Secirmesser*) serves especially for dissecting the large viscera; the dissecting-knife (*Präparirmesser*) for the finer parts, vessels, nerves, etc. But inasmuch as the examination of the large viscera is the primary object of a pathological dissection, it is evident that the section-knife in its present modified form is the principal instrument. In order to use it, the right arm must be allowed to be quite free. The elbow must be raised quite away from the trunk, so that the flexed forearm may be moved freely, and in any direction backwards or forwards. It is, then, easily practicable to divide the integuments of the trunk by one single long incision from the chin to the symphysis pubis. So, also, one incision is sufficient to display the lung from apex to base in two halves. Perhaps this "dodge" (*Schwabenstreich*)—I use the word in the sense of the worthy Frederick Barbarossa—may appear to some improper and culpable. But I candidly own that I am a fanatical admirer of a large incision. The freer the incision—always supposing that it is an even one—the larger will be the field of view, the more numerous will be the points of comparison between normal and abnormal parts, and the more exactly shall we be able to estimate the extent of the pathological territories.

I maintain, indeed, that a free incision, even when wrongly done, is, as a rule, to be preferred to a small, though accurate, one, and is almost always better than several or many small cuts. The large even cut is peculiarly the one for demonstration purposes. To make it, I look carefully at each separate organ, to find where I can get the largest surface on section. I therefore cut through a spleen from above downwards, over the middle of its outer (convex) surface, a kidney from without and within (from the external to the internal border), a liver from right to left in a horizontal direction; the testicle I cut into two nearly equal parts in a perpendicular direction from its free to its attached border, and snap the parts asunder. I divide each lobe of the lung by a perpendicular incision directed from above downwards, and from its thick border towards its inner (anterior, medial, sharp) one. Each hemisphere of the brain I divide by an incision beginning internally just over the corpus striatum, and directed somewhat obliquely outwards. Each hemisphere of the cerebellum I divide by an incision which commences in the fourth ventricle, in the direction of the crus cerebelli, and is carried obliquely outwards.

For many cases, and for several organs, one such cut is sufficient in order to show all that is essential. It very often happens that alterations in the liver, spleen, and kidneys are diffused so uniformly throughout the entire organ that one single cut affords us a sufficient insight into the internal structure of the parts. It is true that in other cases and in other organs—for example, always in the brain—we have to make a larger number of cuts in order to be sure that nothing has been overlooked. Indeed, in the case of the brain we can, properly speaking, never positively assert that it is quite normal, unless we divide it into quite microscopic portions according to the new method of Herr von Gudden. But as this is only practicable in exceptional cases, we must perforce be content with approximative methods. This epithet, however, cannot be applied to any method where sections five millimetres thick are made of important parts. In the interior of such a section there is always plenty of room for foci of morbid material sufficient to produce paralysis or convulsions. The less we find, the greater the number of sections we ought to make.

But whether we make few or many incisions, it seems expedient in every case not to carry them so far as completely to separate the portions of the organ. Even if we only make one single cut, it is always useful to leave in one spot so much of the parts connected as to be able easily to restore the external form of the organ by merely placing the parts together and adjusting them. Many an idea with reference to external appearances has occurred only after the inspection of internal changes has directed our attention to certain conditions; and it is much easier to restore the form and general appearance of an organ when the natural continuity of the parts has been to some extent preserved, than when their connexions have been completely severed.

In those instances in which the necessity of the case demands that the incisions should be greatly multiplied—as, for example, in the brain and spinal cord—it would be utterly impossible to form any further opinion as to the extent of certain changes, or even as to their exact locality, or their relation to the vessels, etc., if the parts have been completely divided. It often happens here that, only at a late stage of the examination, changes become prominent, which render it desirable to re-examine, once or more frequently, all the cut parts in their natural order of sequence, to convince ourselves that nothing has been overlooked in our first examination. Very simple precautions are required to rearrange the parts

of an organ thus dissected: it resembles a book, the leaves of which can be opened here and there, or even entirely separated, and then again closed. But the object in having a book bound is to secure to every leaf a definite place, where it can be found in a moment without much trouble.

(*To be continued.*)

STROMEYER'S JUBILEE.

(*From an Occasional Correspondent.*)

Hanover, April 7.

Yesterday the celebration of Dr. Stromeyer's jubilee—the fiftieth anniversary of his obtaining his Doctor's degree at Berlin—took place here with much ceremony and enthusiasm. It is difficult to convey to outsiders who may be unfamiliar with German ways a correct impression of what occurred on the occasion. The proceedings commenced the evening before last by a torchlight procession to, and a serenade of vocalists, instrumentalists, and a crowd of citizens around, the house of the Professor, who, with his wife and daughter, appeared at one of the windows, from which Stromeyer addressed the crowd, and ended in joining them in song, the purport of which, as we were not within hearing distance, we were unable to try to understand. Yesterday morning the Doctor was waited upon by Prince Albrecht of Prussia, Commander of the Corps d'Armée of the district, by command of the Emperor and fastened on Stromeyer's breast the Order of the Red Eagle of Prussia. Then followed the bearer of an autograph letter of congratulation from the Empress Augusta, who had previously forwarded from the Emperor and herself a set of magnificent vases, on which was a raised portrait of the Emperor, and a large quantity of the choicest plants and flowers to decorate the Doctor's apartments. Then followed throughout the forenoon deputations from many of the universities; addresses from sundry private professors and private friends; deputations from civil and military public bodies, bearing more less elaborately got-up books, portraits, paintings, articles of *vertù*, until the apartment adjacent to the Doctor's reception-room was literally filled with them. Last of all were ushered in the foreign deputations, the British one consisting of Dr. Little, Surgeon-Major Clarke, and Mr. William Mac Cormac. The following was the British address:—

"*To Dr. Georg Louis Frederick Stromeyer, from his English Colleagues.*

"On this, the golden anniversary of your wedding to science, it is especially gratifying to English physicians and surgeons to add their congratulations to those of your countrymen. We have always regarded you as one possessing a peculiar sympathy for English surgery and medicine, and we desire to express our admiration for a life spent, as yours has been, in a constant effort to enhance the principles and improve the practice of our common profession. Your discovery of a safe method of subcutaneous surgery forms an epoch in the history of our art; your 'Handbuch der Chirurgie' abounds in thoughtful suggestiveness; while your 'Maximen der Kreigsheilkunst' afford the rich record of an experience won on many a battle-field.

"To a successful teacher, an admirable author, a great surgeon, and a good man, we tender this token of our affection and esteem."

After the reading of the address by Mr. Mac Cormac, Dr. Little made some remarks thanking Stromeyer for having consented to sit for a marble bust, and claiming for the address an Anglo-American signification, inasmuch as not only the Presidents of each of the three Royal Colleges of Surgeons of England, Scotland, and Ireland had signed it, with many of their respective contrymen holding high offices in the profession, but also because seventeen distinguished members of the profession in New York and Boston, Massachusetts, had signed it. The New York addition to the address was couched in the following words:—"We, the undersigned physicians and surgeons of New York, beg the privilege to associate our names with those of our colleagues of Great Britain in their movement in honour of Stromeyer." If time had permitted a national movement in America would have taken place, or a more general adhesion to the British address would have been forthcoming from that country. We have been informed that a communication from Professor Gross, of Philadelphia, announcing the names of ten subscribers to the address, has been received from that city.

Yesterday evening a sumptuous banquet in honour of Stromeyer was held in the cheerfully decorated hall of the Exchange, and was enlivened by the strains of one of the best appointed bands of the Prussian Guard Regiments. The Count von Eulenberg, Civil Governor of the Kingdom of Hanover, presided, having Stromeyer on his left, supported by the first magisterial, civil, and military dignitaries of the kingdom. About 250 sat down. We were informed that all the leading men of the province who are in any way distinguished for their connexion with, or encouragement of, works of science or humanity which are associated with the practice of medicine and surgery were present. We recognised the distinguished names of Volckman, of Halle; Thiersch, of Leipsic; Heine, of Prague; Busch and Binz, of Bonn; Baum, Köuig, and Schwarz, of Göttingen; Czerny and Funke, of Freiburg; Esmarch and Völkers, of Kiel; Gerlach, of Erlangen; and many others. Congratulatory telegrams innumerable poured in during the festival.

After the President gave the first toast—the health of the Emperor,—and remarked that his Majesty's interest in medical science was shown by the honours conferred by him this day on Stromeyer, the Professor's health was proposed by the present Director of the Medical Department of the Army in Hanover, Berthold, in a very complimentary address, in which he dwelt upon the successive steps of his successful career as a surgeon, beginning with his important discovery of true subcutaneous tenotomy, and his labours in civil and military surgery. After this speech and toast to Stromeyer's health, the following amusing version of the old students' song "Gaudeamus" was sung by the company.

Gaudeamus!
Solemnia Promotionis Viri Illustrissimi Doctissimi
LUDOVICI STROMEYERI,
Medicinæ Quondam Professoris,
Summo Inter Medicos Castrenses Loco Funeti,
Post Quinquaginta Annos Repetita, Die VI. Aprilis, MDCCCLXXVI.
Pia Lætitia Celebrantes.

Gaudeamus igitur,
Juvenes de novo!
Non curamus senectutem,
Celebramus juventutem
Iterum ab ovo!

Vivat Jubilarius,
Per quem multi vivunt!
Ursit mors atroeiter—
Medieus veloeiter
Venit, vidit, vicit!

Vivat res domestiea
Et quæ illam regit,
Uxor amantissima,
Mater honestissima!
Floreatque proles!

Vivat Academia
Quæ quondam ornavit
Nostrum Jubilarium
Et Doctoris symbolum
Illi renovavit!

Ubi sunt, qui ante nos
Pulsus tetigere?
Celsus, Asclepiades,
Et divus Hippoerates,
Cuncti adfuere!

Pereat tristitia!
Pereant infaretus!
Tussis et lithiasis,
Et hypochondriasis,
Sano absint seni!

Vivant omnes virgines,
Curæ curiosæ!
Vivant et mulieres,
Ad curandum habiles—
Suaviter curentur!

Jubilemus igitur,
Juvenes de novo!
Non curamus senectutem,
Celebramus juventutem
Iterum ab ovo!

The poet Bodenstedt—a translator of Shakespeare—produced an appropriate ode on the occasion. Many speeches followed. In ease, clearness, and power they certainly exceeded our expectations. We had previously no conception that the German approached in eloquence to French and Italian speakers. We had forgotten to remember that the nation which bred poets such as Goethe, Schiller, and Körner would surely breed a race of orators. We were much interested to note that the speech-making did not appear to be tied down by the cut-and-dry system of our English public dinners; there appeared to be a greater spontaneity of action, or taking of the initiative by individuals, which led to no irregularity, incongruity, or break of harmony, the apprehension of which appears at home to necessitate the rigid following out of the programme of "toasts" of an English committee. We had almost forgotten to state that the surgeons of Great Britain and Ireland and America were toasted with many expressions of regard. The veteran Professor Baum, of Göttingen, went so far as to tell the meeting that there were yet many more things the Germans had to learn from English medicine. The members of the English deputation were severally called upon to reply. Dr. Little took as his topic that the Republic of Medicine knows no national preferences, but admires, absorbs, and endeavours to honour resplendent ability and discovery wherever mani-

fested; that the English members of the medical profession, whom he and his colleagues were here to represent, however inefficiently, had desired to have Stromeyer's bust in England as an incentive to further exertion amongst their countrymen. Mr. Mac Cormac, who replied in German, said he came to Hanover with the wish to do honour to Stromeyer as one of his oldest German friends, for whom he entertained the greatest affection; and Surgeon-Major Clarke especially eulogised Stromeyer's writings on military surgery and hygiene as having been fertile of instruction to himself and his military colleagues. We left the hall convinced more than ever that Stromeyer's head and heart were of the best material, or they could not have failed to be intoxicated and disturbed by the wonderful ovation given him. There was no end of good things consumed, and of good wines drunk. After all the excitement and fatigue of the day we slept soundly, and awoke undisturbed by headache, and could not avoid the conclusion that these things are managed better in Germany than across the Channel.

QUARTERLY HEALTH RETURNS.

Under the regulations which the Local Government Board have issued in pursuance of the provisions of the Public Health Acts, it is the duty of medical officers of health to furnish that Board with quarterly returns of the sickness and deaths which have occurred in their districts. A Circular has just been issued (of which a copy is subjoined) furnishing the officers with forms in which the returns for the past quarter are to be made. The forms differ in some respects from those hitherto used, and the alterations appear likely to make the returns of greater value, and their preparation more easy. The reasons for the changes are explained in detail in the Circular, but we wish to draw special attention to one point. The managers and officers of hospitals and dispensaries, not provided by sanitary authorities, are under no legal obligation to give to the medical officers of health information in regard to cases of sickness and death occurring therein, and therefore it must depend upon the willingness of the managers and officers of those institutions to furnish the information themselves, or to provide for the medical officers readily obtaining it by inspection of the books. It is obviously of the greatest importance that the returns of sickness and deaths which are required by the Department now entrusted with the supervision of all matters relating to public health should be as complete and accurate as it is possible for them to be made, otherwise they would be comparatively valueless; and we feel assured that the authorities of all hospitals and dispensaries will give every reasonable facility to the health officers to enable them to obtain the necessary information as to cases of sickness and death occurring in those institutions.

[*Copy.*]

Quarterly Returns of Sickness and Deaths.

Local Government Board, Whitehall, S.W.,
March 30, 1876.

Sir,—In forwarding to you copies of the form for the return of sickness and deaths in your district during the quarter ending March 31, I am directed by the Local Government Board to request your attention to the changes which have been made in this form, and which, as the Board believe, will render the returns at once more easy to be made, and of greater value.

One alteration is the addition (under letter A) of four columns—first (II. and III.), for the numbers of deaths registered as having occurred in the district from all causes, and from certain specified diseases; and, secondly (IV. and V.), for the numbers of such deaths among persons coming into the district with their fatal illnesses upon them. The information to be given in columns II. and III. will, if proper arrangements have been made, be furnished to you by the registrar of births and deaths. If arrangements have not been made for providing you with this information, you should bring the subject under the consideration of the sanitary authority, and in doing so may conveniently refer to the Board's Circular Letter of March 23, 1874 (a copy of which is enclosed), and to section 28 of the Births and Deaths Registration Act, 1874. The Board are aware that the information as to persons coming into the district with their fatal illnesses on them (columns IV. and V.) cannot be obtained without trouble; but this information is needed to enable you to judge accurately as to the health of your district, and should therefore be obtained as far as practicable; and, as regards several of the most important preventable diseases, the investigations you have to make, in the ordinary course of your duties, as to the origin of all cases existing in the district, involve inquiry which of the cases have originated within the district, and which of them have been brought from outside.

The remaining columns of the table relate to sickness and deaths among paupers and among patients of hospitals or other public medical institutions. Returns as to sickness can never be expected to be so accurate as those which relate to deaths; and the Board are aware that the sickness returns in these columns are likely, at present, to be of but little value for the purpose of comparing one district with another; but the information on which these returns are to be based is of immediate value in the sanitary administration of the district itself, and as it is for this reason necessary that the medical officer of health should be provided with this information, the Board think it well that these returns should be made by him.

In the present form the columns for the sickness and deaths of paupers (B) are separated from those (C) for the sickness and deaths of patients of hospitals, etc. In the former (under letter B) the cases of outdoor paupers, including such as may have been removed into the workhouse on account of illness, are to be given, *but not such cases of sickness as arise in the workhouse.* The information required for these columns of the return should be obtained for the medical officer of health, as suggested in the Board's Circular Letter of March 23, 1874.

The last division (C) of the table is for hospital and dispensary patients. Except as regards hospitals under the control of the sanitary authority, the medical officer of health must depend for the information he will need in filling up these columns upon the willingness of the managers and officers of the public medical institutions in or near to his district, either themselves to furnish the information, or to provide for his being able readily to obtain it by inspection of the books of the institution. Such persons are not at present under any legal obligation to assist the medical officer of health in obtaining the information; but the Board trust that this assistance will be afforded with increasing readiness, as the importance of the medical officer of health being fully informed of sickness within the district under his charge gets to be more accurately estimated.

A copy of the Board's Order of November 11, 1872, prescribing the duties of medical officers of health, is sent herewith for your use. I am, Sir, your obedient servant,

(Signed) John Lambert, Secretary.

St. Andrews' Graduates' Association and the University.—At the last meeting of the General Council of the University of St. Andrews, Principals Tulloch and Shairp, and Professors Swan and Pettigrew were added to the London Committee of the General Council, which was appointed in 1873, "to watch over the interests of the University in the event of any action either in Parliament or otherwise." The convener is Dr. Richardson, and he is also empowered to "assume as members of the said Committee those members of the General Council who, at the time being, are members of the Council of the St. Andrews' Graduates' Association."

Gratuitous Attendance on the Clergy in the United States.—It seems that it is a custom among many practitioners in the States to render their services gratuitously to the clergy, even when these may be quite able to afford payment. An anecdote related by a correspondent of the *New York Medical Record* (March 11) shows that the recipients of such services attach about the same value to them as the donors. Having attended a clergyman's child through a long illness, on being asked for his bill he declared there was "nothing" to pay. Some time after he learned that another practitioner was in attendance on the family, who always made it a rule to be paid for what he did. He expressed his surprise to a friend. The latter replied that he had learned from the clergyman's wife that as Dr. —— did not charge anything for his services they concluded that they could not be worth much, and determined, on the occurrence of a serious case in the family, to resort to another practitioner.

FROM ABROAD.

Relief of Pain in Acute Affections of the Ear.

Dr. Laurence Turnbull recently read a paper (*Philadelphia Med. Times*, March 4) bearing the above title at the Philadelphia County Medical Society. He observed that the relief of pain has not been dwelt upon with sufficient earnestness by writers on diseases of the ear. Especially as regards children, as long ago as 1859, he recommended anæsthetics in operations on the ear, and with them chloroform may be safely used. And in the removal of living insects, larvæ, etc., from the ear, great advantage is derived from the use of a saturated solution of tannic acid in glycerine, containing a small portion of chloroform and morphia. In no affection of the ear is the use of morphia more satisfactory than in acute purulent otitis media, or in inflammation of the lining membrane of the mastoid cells, large doses being borne with the best results. The hypodermic injection of half a grain of sulphate of morphia in some cases cited by Dr. Turnbull gave immediate relief when the internal use of opium had been tried in vain, and formed a most important element in the curative treatment adopted.

During the discussion which followed, Dr. Taylor asked whether the lecturer had used chloral for the relief of this pain; and Dr. Turnbull replied that he had done so both alone and in combination with bromide of potassium when some reason existed why morphia should not be given. Pain must be relieved in these cases, as it may of itself be sufficient to kill the patient; and, in many cases, if we succeed in relieving the suffering and procuring a few hours' sleep, the patient derives substantial benefit. Dr. Atkinson said that in cases of ordinary earache, which after hours of suffering are sometimes followed by a slight discharge, showing inflammation, he had found nothing give such relief as wine of opium with tincture of belladonna and a little sweet oil instilled into the ear and retained by cotton-wool. Dr. Collins thought that caution was required in the hypodermic use of morphia, having found its effects so variable in different cases. One-eighth of a grain may be considered an average dose for an adult, and yet he has given a grain and a half every two hours without the slightest ill effects. In another case, one-eighth of a grain was followed by all the symptoms of acute opium-poisoning within fifteen minutes.

Dr. Turnbull said, in addition, he wished to impress his opinion on those present that some, if not most, of the cases of deafness, and even of deaf-mutism, have been caused by the neglect and carelessness of practitioners. In place of carefully examining the ear of a child suffering from earache, in order to ascertain whether there be abscess, perforation, or inflammation of the membrana tympani, disease of the internal ear or mastoid cells, or simple neuralgia, a mixture is ordered to be dropped into the ear, which only in a few cases is of any service. Young adults are constantly coming to the Clinic with ears hopelessly damaged in consequence of this defective treatment; and it is impossible to understand why the ear should not be as carefully examined for diagnosis as any other accessible part of the body. Every practitioner should carry with him a nest of two or three specula for the ear, and before prescribing for any severe case should always examine the organ. The membrana tympani is much larger relatively in an infant, and is more easily seen. In the treatment, even of neuralgia, a leech to the mastoid process, or to the base of the tragus, with warm fomentations and chloral, and the bromide given internally, may often be the preferable treatment. If there is an abscess, it has to be opened; and no single line of treatment is applicable to all cases. Dr. Allis observed also that the membrana tympani is nearly as large at birth as in the adult; the meatus, however, leading to it is small, and presents the only obstacle to the examination.

During the discussion several speakers expressed their opinion on the employment of chloroform and ether, several seeming to think that the present feeling against the former is exaggerated, the mischief resulting from its employment being usually due to careless administration. Dr. Allis, who has had great experience in the use of chloroform (which, however, he says he would not inhale himself), lays great stress upon the care with which this must be done. "I try," he says, "to hear every breath, judging more of the patient's condition by his breathing than from his pulse. The latter I seldom concern myself with. I can say confidently, as to the quantity necessary, that I can completely influence a thousand females with a thousand drachms of chloroform, and a similar number of men at the rate of a drachm and a half each. As to its danger, I emphasise the fact that it does not reside more in the chloroform than in the person who gives it. There are but few persons in the profession fitted to perform delicate operations upon the eye, etc.; and I assert that just as few are qualified to give chloroform. . . Its administration requires an amount of drilling, patience, caution, and courage only to be attained by great experience; and medical students or hospital nurses should never be entrusted with so important a duty. It is too dangerous for indiscriminate use in general practice." Dr. Turnbull only uses chloroform in children, and has never met with accidents (Dr. Allis, however, referred to a few) from its employment. He pours a few drops on a towel, "holding it a short distance from the patient's mouth until he gets a little used to it, and then crowding it a little, carefully watching the pulse and respiration, and seeing that a comparatively large proportion of air is furnished at each inspiration." He also uses chloroform topically, impregnating cotton with it, and wrapping this in another layer to protect the canal from its contact. He has also blown the vapour of chloroform mixed with air into the ear by means of Politzer's bag. A mixture of camphor, belladonna, and morphia painted behind the ear is also soothing; but it should be combined with internal treatment; as, for example, a pill taken occasionally containing morph. sulph., ext. belladon., āā gr. $\frac{1}{12}$, camphoræ, quiniæ, āā gr. j. Dr. Turnbull objects to the use of oils in the ear, as they tend to leave a thin pellicle on the membrana tympani, or to induce a form of aspergillus or other fungus.

The Académie des Sciences.

The recent election of a Corresponding Member in the Section of Geometry shows that the French *savants* have effectually overcome their Germanophobia which prevailed for some time after the late war. Two vacancies were recently declared, and for the first of these an election took place on March 27. Prof. Borchardt, of Berlin, was one of the prominent candidates, and a considerable sensation was excited by the circulation of an anonymous note, said to be from M. Le Verrier, calling upon the Academicians not to commit themselves to the unpatriotic act of admitting Germans. As a very eligible candidate in the person of Mr. Spottiswoode also presented himself, this request was easily complied with, and he gained the victory, after three ballotings, having at last twenty-eight votes to Prof. Borchardt's twenty-four. On April 10, however, the other vacancy, caused by the death of M. Besgue, of Bordeaux, had to be filled up, and Prof. Borchardt was again brought forward, being now opposed by M. Catalan. This time he was victorious, having twenty-nine votes to the nineteen of M. Catalan. "Not a single Frenchman is now in the Section," exclaimed M. Le Verrier; and so it is, for of the six members of the Section, four are Germans, and two English—viz., Dr. Neumann, Königsberg, 1863; Prof. Sylvester, London, 1863; Dr. Kronecker, Berlin, 1868; Dr. Weierstrass, Berlin, 1868; Mr. Spottiswoode, London, 1875; and Prof. Borchardt, Berlin, 1875. This list certainly exhibits either a great liberality to the foreign element, or a dearth of home material—a point we must leave to the decision of the competent.

A struggle of a different kind within the same sacred precinct is about to take place in filling up the vacancy in the section of Medicine and Surgery caused by the death of Prof. Andral, and for which M. Gubler, the Professor of Therapeutics at the Faculty of Medicine, has announced himself as a candidate. It has been for some time past the object of the "pure physiologists," led on by Prof. Claude Bernard, and aided, strange to say, by so great a clinician as Andral, to purge this Section of the mere "doctor" element: and on this ground the elections of Professors Sédillot and Gosselin were contested, keeping it in store for physiologists, who are not represented in the Academy except thus indirectly. At the present time there are only two or three surgeons in the Academy, and Prof. Bouillaud is, we believe, the only physician. It would be much to be regretted were this policy to succeed, and the doors of the Academy closed against the aspirations of future Dupuytrens, Nélatons, Trousseaus, or

Chomels, even though the claims of such rested chiefly on their great clinical reputations.

The veteran *savant* M. Chevreul (says the *Union Médicale*), while presenting a book, and speaking of the works of the late M. Donné, made use of an eminently academical euphemism. In place of stating that M. Donné was dead, after the manner of ordinary mortals, he declared that "*malheureusement* he had interrupted his communications." Thus at the Academy people do not die, but only interrupt their communications! It would certainly be somewhat more exact to say that they had closed their communications, but then it would have been also somewhat more harsh.

Stammering.

Dr. Coen, of Vienna, in a paper entitled "On the Heredity and Psychical Contagiousness of Stammering" (*Wien. Med. Zeit.*, March 21), observes that this subject, which to the uninitiated may seem of very little consequence, is really, as regards the prophylaxis, prognosis, and treatment of stammering, of the highest importance. The more he has investigated this defect, the more he has become convinced of the manner in which it has entwined itself around our social life, morally damaging so many hundreds of existences—so that it becomes the duty of the well-informed practitioner to enlarge, as far as possible, the circle of our knowledge respecting it. The author is engaged in the preparation of a large statistical work, with which he hopes soon to illustrate his views with ample facts and figures; and he believes that it will be found almost without exception that stammering takes its root in the earliest age, and that a rational prophylaxis will do much for the prevention of its development. In the meantime he wishes to say a few words on its heredity and its production by imitation, first referring to the works of Schulthess, Colombat, Rosenthal, and others, in proof of the efficacy of these factors. These have amply proved that stammering may be a family defect (especially on the mother's side), and may also be acquired through voluntary or involuntary imitation. Speaking of his own experience, Dr. Coen states that among fifty carefully observed cases, he found that in nine the stammering was due to the above causes—viz., in five to heredity, and in four to imitation. According to his observations, confirmed also by the statements of Colombat, stammering thus produced is of a less favourable prognosis, while its treatment is more difficult and more prolonged, so that recovery is only to be expected when the cases are treated with unusual energy. A rational prophylaxis is of the greatest importance in children inclined to stammer, and details on this will be given in the forthcoming work.

In illustration, Dr. Coen relates one of the five hereditary cases he has met with. A boy, ten years old, was brought to him with excessive stammer, having always been on the increase from the commencement. His mother stammered until her eighteenth year, and now, in her thirty-seventh year, she does not speak quite freely. Her parents were free from stammer, but among their five children a brother as well as herself suffered from it. Moreover, the mother of the boy had an aunt (forty-two years of age) and two uncles (forty-six and fifty-seven years of age) who both stammered from their youth. The mother of an aunt of this woman also stammered. Both the boy and his mother as well as his sister were scrofulous, whereas the father had died in a good state of health, and did not stammer. Here, therefore, was a striking example of the heredity of stammering, in which the affection could be traced through four generations, affecting several members of the family. It is also of importance to observe that it arose on the mother's side.

The Professor of Medicine, St. Andrews.—The St. Andrews University Court has given permission to Dr. Bell Pettigrew, the Professor of Medicine in the University, to engage in the practice of medicine and surgery, with the exception of obstetrics. The local press congratulate the inhabitants of St. Andrews and the county of Fife generally on their now having it in their power to avail themselves of the skill and experience of one "whose long connexion with the Infirmary of Edinburgh furnishes the best guarantee that he will bring a ripe experience to the aid of a theoretical knowledge of his profession of the highest order." To fully appreciate this acknowledgment of Dr. Pettigrew's merits as a physician, it should be known that his attentions to the patients of the Edinburgh Infirmary in his official capacity were strictly post-mortem.

REVIEWS.

The Practice of Surgery. A Manual. By Thomas Bryant, F.R.C.S., Surgeon to, and Lecturer on Surgery at, Guy's Hospital. Second edition, revised and enlarged, with 559 illustrations. Vol. II. London: J. and A. Churchill, New Burlington-street. 1876.

In reviewing this work in December, 1872, we foretold that only a short time would elapse before a second edition would be required. The whole construction of the book was so original and independent, and the teaching was so comprehensive and sound, that we felt it was quite certain that the author would at once take a place amongst the foremost surgical authorities of his time. There is no need to assert that this anticipation has been realised. It is sufficiently verified by the facts—that a large edition has for some time been exhausted, and that quotations from and references to the book are continually being made. The acknowledged excellence and wide reputation of this manual render it, also, quite superfluous to review at any length a second edition.

It ought to be mentioned, however, that it appears under quite an improved garb, being now in two handy and good-looking volumes in place of the shapeless and bulky single volume. For facility of reference the headings of the subjects contained therein are printed upon the back of the cover of each volume. A mere glance at these tells us that the first volume contains a description of the general principles of surgery, of tumours, and other general subjects, and of the surgery of the cutaneous, lymphatic, nervous, circulatory, and digestive systems; while the second contains an account of the surgery of the respiratory, urino-genital, muscular, and osseous systems, and a very good and complete index.

Although there has been a general adherence to the plan of the first edition, the arrangement of the work has been considerably improved in detail. We find, too, that much new matter has been added, so that the size of the manual is a good deal increased. The chief additions are chapters on the Diseases and Injuries of the Eye and Ear, in executing which the author has obtained the valuable assistance of Mr. Higgens and of Dr. Laidlaw Purves respectively. These chapters are, unquestionably, improvements in, as well as additions to the book, and will convey to the reader all the leading points which for examinational purposes the student, and for practical uses the practititioner, require.

Another additional section is that on Dental Surgery, which has been ably written by Mr. Moon, Assistant Surgeon-Dentist to Guy's Hospital.

The chapter on Ovarian Disease and Ovariotomy has been much improved by the addition of sections on the Diagnosis of an Ovarian Tumour, on the Diagnostic Value of a Pelvic Examination in Ovarian Disease, and on the Value of Tapping for Diagnostic Purposes.

In the chapter on Deformities some very interesting facts are mentioned in support of the hereditary nature of deformities. The description of Amputations has been revised, and upon one or two points a more positive opinion is expressed than in the former edition: notably with regard to amputation at the knee-joint, very unequivocal direction is now given to leave the patella untouched in the flap, if not diseased. This chapter was and is one of the clearest and most valuable in the book.

Finally, fifty-two new woodcuts have been introduced.

No words are necessary to commend to the profession a work of such sterling merit as the above. Whatever may have been its faults of manner or of diction in the first place, its subject-matter was undeniably good, and obtained for the book a reputation which the second edition will confirm and justify, and even enhance.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.M., M.D., LL.D., Surgeon to Bellevue Hospital, New York; Consulting Surgeon to Hospital for Ruptured and Cripples, to St. Elizabeth Hospital, etc.; author of a treatise on "Military Surgery and Hygiene," and of a treatise on "The Principles and Practice of Surgery." Fifth edition, revised and improved, illustrated with 344 woodcuts. London: Smith, Elder, and Co. 1875.

The first three editions of this valuable work were called for in seven years. Four years then elapsed before the fourth

appeared; and, again, only four years have elapsed before the fifth is required.

It brings our knowledge of the diagnosis and treatment of fractures and dislocations up to the present day, and is, without doubt, one of the best books of the kind. To Dr. Hamilton belongs the credit of having produced the first thoroughly exhaustive treatise on fractures and dislocations in the English language. His work displaced Sir Astley Cooper's as soon as it appeared in 1859. Its only rivals are Malgaigne in the French, and Gurlt in the German language. It has too often passed under the favourable notice of the reviewer, and is too familiarly known to the profession, to require a long notice at the present time.

It is the book upon which the author's professional reputation will chiefly (and may most safely) rest, and will be read, quoted, and remembered long after his more pretentious "System of Surgery" is forgotten. In fact, it may be stated that the best portions of the "Principles and Practice of Surgery" are those which are borrowed from the author's own writings on Gunshot Injuries, and from this work on Fractures and Dislocations.

The treatise is full of the most important information; if it deals largely in details, it is clear, simple, and explicit, and Dr. Hamilton is known to be a pleasant and readable writer. The present edition contains many fresh observations of practical surgeons, nearly fifty additional pages, and twenty-two additional woodcuts. Let no young worker in the field of fractures and dislocations be daunted, however, at the completeness of this volume, but let him take comfort and encouragement in Dr. Hamilton's own words: "there remains, unfortunately, much to be accomplished, so much, indeed, that no one who thoroughly understands the facts and feels an interest in this branch of our science will rest satisfied with what has been done, and hereafter cease to labour." These are truly the words of a great mind, which, having mastered its subject more thoroughly than has any other living surgeon, has never ceased to labour for its improvement, and intends to continue yet to labour.

With regard to the present edition, we have but one fault to find, and that is with the publishers, not with the author. There is a considerable falling off in its finish and general style when compared with the fourth edition published by Trübner and Co. Neither the printing nor the binding are as good as the former edition, and the reader has again the abominable nuisance of cutting leaves, and leaving ragged edges—an annoyance which was spared us by the former publishers, and one which ought never to attach itself, in these days, to a book of this kind.

A Class-Book of Chemistry on the Basis of the New System. By Edward L. Youmans, M.D., Author of "Handbook of Household Science." London: Henry S. King and Co. 1876. Pp. 348.

This work is not designed as a manual for special students of chemistry, but is intended to meet the wants of those who would like to know something of the science, but have not the opportunity or desire to pursue the study in a thoroughly experimental manner. The author has merely attempted to furnish such an outline of the leading principles and most important facts of the science as will meet the needs of the mass of students in high-class schools and academies who go no further with the subject than to study a brief text-book, and perhaps attend a few lectures. For this class the work is eminently well suited, and it may also be recommended to medical students as an excellent introduction to the science. The part of the work devoted to chemical physics is exceedingly well written, and by its aid no student of average intelligence ought to have any difficulty in understanding the general principles of the science. The descriptive chemistry is also very good, as far as it goes, but the section on organic chemistry does not enter sufficiently fully into details to be of much value to medical students.

Chemical Notes for Pharmaceutical Students. By A. Rivers Wilson. London: Baillière, Tindall, and Cox, King William-street, Strand. Pp. 84.

The object the author had in view in preparing this little work was, he tell us, "to bring into a small compass, so as to be carried in the pocket, the leading facts connected with the chemicals of the British Pharmacopœia." We cannot say that he has been altogether successful in attaining this object. True, the whole is contained in a few pages, but the size of the work does not strike us as being the most convenient that might have been selected as a pocket-book. By a judicious choice of type and a strict exercise of economy in the disposal of space, the whole of the matter might have been put into a much smaller compass. Of the literary part of the work little need be said. To produce such a minimum of knowledge the smallest particle of literary ability is necessary. Everything the work contains may be found in the ordinary class-books used by medical students; still we can readily believe that there are many students who would rush to these "Notes" in the hope that the condensed information contained therein will enable them to overcome their examination difficulties more readily than if they were to study pharmaceutical chemistry in the usual manner.

Catalogue of the Models of Diseases of the Skin in the Museum of Guy's Hospital. By C. Hilton Fagge, M.D., Curator of the Museum; Assistant Physician to, and Lecturer on Pathology at, the Hospital; formerly Demonstrator of Cutaneous Diseases. London: J. and A. Churchill. Pp. 249.

It is not often that we are called upon to notice a mere museum catalogue, but there are certain occasions when it becomes our duty to step out of the beaten track and to do justice to what is really a work not only of much labour—that all catalogues must be,—but also one containing much original and interesting matter. It is well known that Guy's Hospital contains an almost, if not altogether, unique collection of models of skin diseases, the product of many years' careful observation and collection by the many distinguished men who have worked there. The present volume is intended not only as a mere catalogue of these, but as a guide to their careful study, and as a key to their interpretation. In many instances there is a brief clinical history attached to a given specimen, adding greatly not only to its value, but also to that of those allied to it. In notes like these there is accumulated much knowledge not elsewhere available, and we should strongly advise anyone interested in skin diseases on a visit to London to make this volume their companion in a study of the Guy's museum. It is a pity it is limited to that.

Outline Drawings of the Figure for recording the Situation and Form of Cases of Skin Disease. Arranged by Balmanno Squire, M.B. Lond., Surgeon to the British Hospital for Diseases of the Skin. London: J. and A. Churchill, New Burlington-street. 1876.

Dr. Squire advances the opinion that "it is expedient on many grounds that something of the scientific precision which is in common use in case-taking of some classes of disease—for example, the diseases of the lungs—should be imported into the annotation of diseases of the skin." Few will be disposed to differ with him on this point; that is, if scientific precision does not already obtain among those who claim to be accurate and careful observers in this special department. But there are many practitioners, doubtless, who will not take the trouble to sketch an outline figure and fill it in with such markings as may be necessary to convey to others the extent and characters of the lesions of the skin that come under their notice. Others, again, are not sufficiently ready with the pencil to draw a presentable outline figure, and hence give only written descriptions of their cases. To assist such, Dr. Squire has published this set of outline figures, representing different views of the body, the head, the hands, and the feet. With their aid it requires but little skill on the part of the observer to sketch, either in ink or in colours, a map representing any particular case of skin eruption that may come under his notice. Only one caution is necessary to those into whose hands these outline figures may fall, and that is—not to forget, whilst intent on making a pretty picture, that the first aim of the physician should be the rapid cure of his patient.

Des Plaies Pénétrantes des Articulations. (*On Penetrating Wounds of Joints.*) Par le Dr. Dechaux. Paris, 1875.

This essay, which obtained the gold medal of the Medical and Chirurgical Society of Toulouse, is an argument in favour of conservative surgery in the treatment of wounds of joints. We should scarcely have thought that a treatise of 120 octavo pages was required to prove to the surgical mind of the present day that a simple wound of a joint did not of necessity demand

amputation of the limb. But then an essay had to be written, and a book made, and—has it not obtained a gold medal?

Dr. Dechaux has had the opportunity of treating a large number of wounds of joints in consequence of his living in the neighbourhood of glass and iron manufactories. The subjects of these injuries are, as a rule, healthy persons, and the author advocates active antiphlogistic treatment, which seems on the whole to have yielded good results; there is nothing, however, of the least novelty in his suggestions. Dr. Dechaux makes no reference to the antiseptic method of treating wounds, but he expresses his conviction that the admission of air is of no consequence, and that the simplest form of dressing is the best. There has, perhaps, been too much neglect of antiphlogistic remedies in traumatic inflammations, and the book may do some good by reminding us of their usefulness.

Des Contractures. (*On Contractures.*) Par le Dr. Isidore Straus. Paris, 1875.

Dr. Straus defines a "contracture" as a tonic, persistent, and involuntary contraction of one or more muscles. The phenomenon is of an active and lasting character, and is to be distinguished from mere shortening depending upon the conversion of muscular into fibrous tissue (cicatricial), or upon the paralysis of opposing muscles, and from cramps and convulsions which are of a transient character.

Contractures due to diseases of the cerebro-spinal axis are first described, and Dr. Todd's classification is adopted. The pathological changes consequent upon cerebral hæmorrhage and their connexion with contractures is described, but nothing is added to what is already well known. A good description of the so-called "hysterical contractures" is given, derived chiefly from Charcot's work. The name is not a good one, for, as Dr. Straus points out, such cases, when of long duration, are shown to be dependent upon organic lesions, so that it is probable that there are less marked changes even in the slighter cases. The important subject of reflex contractures receives but slight notice, but a chapter is devoted to the disease called by the French "tetanie," and of which Trousseau has given so excellent a description in his "Clinique Médicale." Less than two pages (out of ninety-three) is devoted to treatment, and if the remaining ninety had been left unprinted we doubt if the profession would have suffered a very material loss.

Handsome Testimonial.—Mr. Charles Franklin, M.R.C.S., formerly of Guy's Hospital, on removing to London from Ingatestone, where he had been in practice nearly twelve years, has just been presented by his former patients, including a great number of the poorer class—showing the great estimation in which he was held by them,—with a handsome solid silver centre-piece, with cut glass mountings for fruit and flowers; and an illuminated and highly complimentary address on vellum, in a handsome morocco case. The testimonial, which was presented by the clergyman, was manufactured by Messrs. Hunt and Roskell.

Chloral in the Pains of Childbirth.—Dr. Polaillon stated, at the Société de Médecine de Paris, that he had made trial of chloral in eighteen obstetrical cases, administering it as an enema in doses of thirty or forty-five grains dissolved in half an ounce of water or milk. According to the effect produced, or whether the whole was retained or not, a second enema was given at the end of an hour, and sometimes even a third. The quantity of chloral thus given varied from thirty to 120 grains; but the mean amount really absorbed did not exceed, on account of the rejection of a portion of the enemata, sixty or seventy-five grains. In all the cases it was given during the later hours of the period of dilatation, or during the expulsive period, and was habitually well borne. In some of the women the contractions were obviously less painful, without diminution of their frequency or energy, the labour terminating in the usual time; but in a somewhat larger number the uterine action was arrested, as well as the pains, the presentation remaining in the pelvis or at the vulva, so that in five cases out of the eighteen delivery had to be terminated with the forceps. In M. Polaillon's opinion, while chloral may be employed with advantage for assuaging excessive excitability of the uterus, or for the relief of pains produced by too violent contractions, it ought to be rejected in normal accouchements.—*Union Méd.*, April 15.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, March 24.

E. H. Greenhow, M.D., F.R.S., Treasurer, in the Chair.

Linhart's Chisel for Excision of Bone.

Mr. T. Holmes related the particulars of a case, for the purpose of introducing Linhart's chisel to the notice of the meeting. The patient, a married woman, aged forty-five, had had swelling and pain of the left ankle for three years, these symptoms having gradually increased. An incision being made over the front of the joint, the astragalus was found to be diseased, and the end of the tibia eroded. Subsequently, an operation was performed, upon Esmarch's bloodless principle, and with the minutest details of the antiseptic plan. The astragalus was removed with the lion forceps, and the lower ends of the tibia and fibula were excised with Linhart's chisel. The wound was then thoroughly dressed antiseptically. Pus, however, formed within it, and had to be evacuated. At the date of Mr. Holmes's communication (two months after the operation), the wound was almost cicatrised. This chisel, invented by Herr Linhart, of Würzburg, was a stout instrument with an oblique edge, having a thick back, on which was a projecting ridge to catch the hammer, by which the weapon was driven through the bone. It could be driven with an equable motion through the bone in the same straight line as that originally formed by its edge, and could be stopped at the proper place. It never splintered the bone, and required no dissection around the bone to be removed. It would prove a valuable acquisition to the surgeon's stock of instruments, but required a moderately firm basis for the bone to be divided, and might possibly not always prove sufficiently powerful to deal with very much solidified bone.

Mr. Pick had used the chisel with much satisfaction. In one case, where the lower jaw had to be partly removed, there was not a sufficiently firm support for its use.

Headache, Double Optic Neuritis and Blindness, ending in Recovery.

Dr. Goodhart read notes of a case of headache, double optic neuritis and blindness, ending in recovery. The patient, aged twenty-one, had been under the observation of Mr. Higgens and himself for more than a year. She had suddenly been seized with severe headache and vomiting in December, 1874, and gradually in the course of a few days became completely blind. She had also attacks of dyspnœa; pain and slight hyperæsthesia on the right side of the head and neck; incomplete paralysis of the external rectus of each eyeball; very transient left hemiplegia following a severe attack of headache; indistinctness of articulation and slight mental disturbance; while constipation and a slow and irregular pulse marked the whole course of the acute attack, which extended over a fortnight. The temperature was not raised. Since that time she had slowly recovered, and had now for some time past resumed her occupation—that of a teacher in one of the School Board schools. Her sight was still far from perfect, and there was a tendency to retch unless she was very careful with regard to the quality and quantity of her diet. She was treated by the assiduous application of cold to the head, and by iodide and bromide of potassium, with small doses of mercury and chalk internally. The authors brought the case forward with a view to elicit opinions on the diagnosis. From the sudden onset of the symptoms, the early optic neuritis, and the absence of any pyrexia, they inclined to the view that the disease was one implicating the substance of the encephalon rather than the membranes. A tubercular family history, the appearance of the patient, and some history of a previous blow, led up to the conclusion that the affection was probably a yellow tubercle, while the symptoms narrated indicated that the lump was a small one situated on the right side more than the left, at the upper part of the pons Varolii. The occurrence of temporary hemiplegia after a severe attack of headache, and the persistence of a tendency to retch long after all urgent symptoms had subsided, were also noted as interesting features in the case.

Mr. Couper thought almost complete loss of vision with recovery was hardly so rare as Dr. Goodhart seemed to think. In the case of a boy who had albuminuric retinitis there was almost complete loss of vision, but it gradually improved. At

the same time the appearances in the fundus of the eye seemed to remain stationary.

Dr. Greenfield considered Dr. Goodhart's case as different from that narrated by Mr. Couper. In the former there was probably a primary optic neuritis extending backwards to the brain, rather than a descending neuritis extending from the brain to the eyes. Everything seemed to favour the view of a slight basal meningitis, insufficient to cause pyrexia.

Mr. Macnamara thought a prognosis should not be come to by the use of the ophthalmoscope alone. In sunstroke there was often much exudation at the back of the eyes. This would be absorbed, and sight improved. In malarial cases, also, there might be hæmorrhage, followed by rapidly improving sight. He thought Dr. Goodhart's case might be explained by the existence of a syphilitic gumma.

Dr. Taylor said that in children there might be very severe symptoms, and yet after a long time recovery take place. He had seen a child blind and partially hemiplegic for three months recover. In another case he had examined the brain long after such symptoms, and found only a slight lesion.

Dr. Buzzard, too, thought the case syphilitic from its rapid cure by iodide of potassium.

Obturator for Cleft Palate.

Mr. A. T. Norton related particulars of a case of cleft palate in a child, thirteen years of age, in which the cleft extended forwards to the alveolar border, whilst posteriorly the two halves of the uvula could barely be made to approximate. After the operation, union took place in the uvula and soft palate and in a large portion of the tissue covering the hard palate; but in the front of the mouth there still remained a space five-eighths of an inch in length by half an inch in breadth; and the voice was not at all improved. With a plate over the aperture between the nose and mouth, a slight improvement was perceptible; but the uvula was not capable of sufficient movement, so as to lie against the pharynx and close the aperture upwards to the nostrils. With Mr. Sewill's assistance, an obturator was devised and made, to which was attached a false uvula of considerable breadth, and composed of flexible vulcanite indiarubber, protruded backwards from the nose into the pharynx. This apparatus effectually closed the passage to the nose when the child spoke, and she could immediately articulate the letters S and Z to perfection, sounds which she had before been quite unable to make. It was found necessary to have the part of the obturator which connected the mouth-plate with the nasal rim made slightly smaller in size than the aperture to which it was fitted, otherwise pain was produced. There was so little development of bone in this case that the two sides could not have been brought together by Sir W. Fergusson's operation. Mr. Norton thought this instrument would be of great use in other similar cases, where the uvula could not be made to close with the pharynx the passage between the buccal and nasal cavities.

Mr. Mason said his plan of forming an artificial uvula by division of the velum palati generally answered well.

Hydatid Cyst in Orbit.

Mr. George Lawson related a case of large hydatid tumour which he had recently removed from the orbit. The history of the case was the following:—E. F., aged twenty-nine, married, a fisherman, first came under his care at the Royal London Ophthalmic Hospital, in October, 1872, suffering from protrusion and eversion of the left eye, with considerable impairment of vision. All these symptoms had been developed in ten weeks. On his admission there was proptosis of the left eye to the extent of about half an inch beyond the orbit, and with complete divergence of the eye. A soft mass could be felt at the upper and inner part of the orbit, which had a sense of fluctuation. He was unable to count fingers at a distance of one foot, and his field of vision was complete. With the ophthalmoscope the optic disc presented the appearance well known as "the choked disc." By direct examination the swollen optic nerve seemed to stand out from the fundus; the veins and arteries were all extremely tortuous at the disc and far on to the retina. The veins especially were much dilated, and bent abruptly as they passed over the margin of the nerve, and the arteries were apparently enlarged. Mr. Lawson punctured the tumour through the upper eyelid, and about two drachms of clear fluid escaped, and the eye immediately partially receded into the orbit. As the fluid could not be collected, no examination of it was made, but he concluded that the tumour was a hydatid cyst. The man returned home and was not again seen until February 14 of this year, when he was again admitted into the hospital, as the tumour had considerably increased in size, and he was anxious to have it removed. The protrusion and eversion of the eye was greater than when in the hospital four years previously. His sight was so much impaired that he could only distinguish shadows, and could not count fingers. The patient was put under ether, and Mr. Lawson cut down upon the tumour through the upper lid, so as to freely expose it, and then punctured it, when a quantity of clear water escaped, and with it two or three small daughter-cysts. He then seized hold of the parent cyst with a pair of toothed-forceps, and succeeded in drawing it out entire. The patient progressed favourably; the wound suppurated, and the eye immediately began to recede. He left the hospital in the following week. The sight had so much improved that he was able to read No. 20 of Jaeger's test-types, and it will probably continue to improve. As the suppurative inflammation subsides, the eye will regain to a great extent its normal position in the orbit. Mr. Lawson remarked that the points of interest in this case were—1st. The extreme rarity of hydatid cysts in the orbit. He was informed by Dr. Cobbold that there was only one other case recorded in England, and that occurred in a patient of Mr. Hulke's. The preparation is now in the museum of the Middlesex Hospital. 2nd. The production of the choked disc by the pressure of a tumour on the optic nerve, and the return of the optic disc to its normal appearance on the removal of that pressure by the tapping of the cyst. It has been long known that tumours pressing on the optic nerve will produce choking of the disc, but he did not remember any case in which the fact has been so capable of demonstration as in the one which he has related. 3rd. The tumour was removed without inflicting any injury on the eye.

PATHOLOGICAL SOCIETY.

Tuesday, April 4.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Tumour of the Sciatic Nerve.

The report of the Committee on Morbid Growths on Mr. Balding's specimen of tumour of the sciatic nerve was read. The structure was a mixture of fibrous and mucous tissues.

Sarcoma of the Clavicle.

The report of the same Committee on Dr. Walsham's specimen of sarcoma of the clavicle was also read. The reporters had nothing to add to the original description given by the exhibitor.

Perforating Ulcer of the Stomach.

Dr. Thorowgood showed a specimen of this nature, for Dr. Wilton, of Sutton. A man of twenty, subject to dyspeptic symptoms, was taken rather suddenly with severe abdominal pain, and died on the third day. The gastric wall was found to be perforated by an ulcer, and the peritoneum was inflamed.

Contents of Dermoid Ovarian Cyst.

Mr. Knowsley Thornton showed a specimen of the contents of a very large ovarian cyst from a woman of fifty-nine, who had suffered from the disease for more than thirty years. Five years ago a very large amount of fluid had been removed by tapping. In January last an enormous amount was again removed, containing remarkable solid bodies, which blocked the canula. The patient recovered for the time, but died in hospital of bronchitis. Post-mortem, the greater part of the abdominal cavity was found to be occupied by an enormous dermoid cyst connected with the ovary. More of the peculiar bodies were found within it, and they proved to be soluble in ether, and to be composed chiefly of epithelium, red hairs, and fat.

Scrofulous(?) Disease of the Larynx, etc.

Mr. Lennox Browne showed this specimen. A girl of fifteen, who had suffered before from her throat, was found in July, 1875, to be labouring under aphonia, laryngeal cough, and constant dyspnœa which amounted to orthopnœa. There was no pulmonary phthisis. Growths could be seen on one cord with the laryngoscope. The girl improved under treatment, but in January last she was seized with pain in the side, and the laryngeal symptoms returned. The larynx was tender, and there was œdema of the glottis. Tracheotomy was recommended, but the patient died suddenly, and without

struggle, next day. Post-mortem, the mucous membrance of the larynx was found thickened generally: a deep ulcer had destroyed the right cord, and the left was less diseased: the epiglottis was partly affected, and the parts generally presented growths. There was recent right pleurisy; the lungs were healthy beyond slight bronchitis. The right bronchus was involved in a mass of enlarged gland-tissue, which extended up along the trachea; and the right ericoarytenoid muscles were wasted, as compared with the left: the recurrent nerve was involved in the growth. The nature of the disease was obscure, but probably scrofulous; the so-called growths were simply epithelial. The enlargement of the glands was interesting, and pressure on the right nerve was very rare.

Mr. Wagstaffe asked Mr. Browne what he considered the difference between scrofulous disease of the larynx and laryngeal phthisis. He recommended that the specimen should be referred, in this connexion, to the Morbid Growths Committee.

Mr. Browne replied that he had never seen a case of laryngeal phthisis in which the lungs were not in a state of advanced disease. The present seemed to be rather a case of scrofula.

The specimen was referred.

Occlusion of Superior Vena Cava.

The Medical Secretary showed for Mr. Stocks, of Manchester, a specimen of occlusion of the superior vena cava. The superior vena cava was patent for an inch above the auricle, but thence occluded. A man, whose face had always been rather red, had to give up his work in August, 1875. The distal parts above the level of the chest became congested; the neck was much thickened at the base, and the condition of mixed œdema and lividity was limited below at the level of the fifth rib. The cardiac sounds and pulse were normal. The patient was in a state of semi-stupor. Post-mortem, the right pleural cavity was found full of fluid; the heart was normal. The superior cava was occluded, as described, for an inch and a half, and on the distal side of the occlusion was much diminished in calibre. There was some thickening of the parts around the vessel. The immediate cause of death was, probably, pleurisy. The phrenic veins were large; the epigastric were not dilated. Dr. Green added that the vein seemed to have been involved in a tumour. The specimen was referred, at his request, to the Morbid Growths Committee.

Congenital Absence of the Superior Vena Cava.

Dr. Greenfield showed a specimen of this nature. The right brachio-cephalic trunk had retained its communication, through the oblique, with the left, and the two passed into the heart by the coronary sinus. The specimen was taken from the body of a patient that died of bronchitis, emphysema, anasarca, and gangrene after acupuncture. The heart weighed twenty-two ounces; the right auricle was very small, but the appendix very much dilated; the inferior cava opened in the usual position; the mouth of the superior cava admitted only a crowquill. The arrangement of the veins was as described: that of the azygos and intercostals could not be discovered. Persistence of the left trunk *alone* was exceedingly rare.

Thrombosis of the Mesenteric Vein.

Dr. Hilton Fagge described a case where the superior mesenteric vein was found full of blood after rapid death with severe abdominal pain. A lady had been confined for the first time several weeks before, and was recovering from white leg, when she was suddenly seized with great pain in the abdomen, and was found in extreme distress, which passed into collapse. Dr. Fagge found her dozing from sedatives, but the pain speedily returned. No tumour, hardness, or tenderness could be discovered, and the cause of the severe abdominal symptoms was perfectly obscure. The pulse was just perceptible. Death occurred in eleven hours. At the post-mortem examination, next day, the upper half of the small intestine was found of an intensely red-purple colour, as if it had been strangulated, but perfectly flaccid and soft instead of distended. The condition looked like the result of embolism of the mesenteric artery; but there was no valvular disease of the heart. The part of the superior mesenteric vein corresponding to the congestion was filled with an ante-mortem coagulum; the discoloured part of the bowel was rather sharply defined. The arteries were in no respect abnormal; the veins were therefore probably the cause of the condition. Dr. Fagge said that a case in some respects like the present had been recorded by Dr. Wilks. A woman with tumour of the liver became collapsed, and died rapidly; and, post-mortem, while a mass of cancer was discovered in the liver, the whole of the branches of the portal vein—to the very finest—were found full of coagulum. Dr. Wilks, in commenting on the case, had inquired whether the coagulation was due to arrest of circulation in the liver. Dr. Fagge said that clinically the case was new to him.

Dr. Goodhart said that he had seen a case where a man died suddenly while progressing favourably in an attack of hepatic colic. No clot was found in the veins, but the mesentery was extremely congested in its whole substance. A large calculus lay near the mouth of the duct. No other cause of sudden death could be discovered.

Discussion on Syphilis.

The discussion on syphilis was then resumed, and brought to an end.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the usual monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, April 11, 12, and 13, the following candidate for the Previous Examination in Medicine was successful:—

Fuller, Joseph.

For the licence to practise Medicine the following candidates were successful:—

Bareroft, Penrose John.
Blake, Richard Marlay.
Cumine, James Moray.
Duff, Arthur.
Elmes, Robert Rosborough King.
Falkiner, Thomas Falkiner.
Gillibrand, William.
Hoey, John.
Keays, Samuel.
Monks, Charles.
O'Counell, Morgan David.
Palmer, Francis Craddock.
Roberts, Browne.

For the licence to practise Midwifery—

Bareroft, Penrose John.
Bredon, Alexander Macaulay.
Cumine, James Moray.
Duff, Arthur.
Elmes, Robert Rosborough King.
Falkiner, Thomas Falkiner.
Gillibrand, William.
Hoey, John.
Keays, Samuel.
Kilbride, James.
Leatham, William.
Monks, Charles.
O'Connell, Morgan David.
Roberts, Browne.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 18th inst., viz:—

Bull, James Weston, Chislehurst, student of Guy's Hospital.
Burnham, George Herbert, M.B. Toronto, Peterborough, Canada, of the London Hospital.
Clarke, Robert Henry, B.A. Cantab., Tavistock, Devon, of St. George's Hospital.
Davies, Francis Joseph, Newport, Mon., of University College.
Eeeles, Arthur Symons, Plymouth, of St. Bartholomew's Hospital.
Fisher, Thomas, L.S.A., St. Michael's-on-Wyre, Lancashire, of St. Thomas's Hospital.
Frankish, William John, Kirmington, Lincolnshire, of University College.
Hunt, Joseph William, Mildmay-park, N., of University College.
Judson, Thomas Robert, Forest-hill, of Guy's Hospital.
Merriman, John William Conyers, Kensington-square, of St. George's Hospital.
Murphy, Henry Howard, L.R.C.P., Westgate-terrace, Brompton, of St. George's Hospital.
Pearse, Joshua Sydney, L.R.C.P., Plymouth, of University College.
Pinnell, Thomas Mark, St. John's-wood-terrace, of University College.
Scott, John Halliday, M.B. and C.M. Edin., Edinburgh, of the Edinburgh School.
Shuttleworth, Lionel Edward Kay, M.A. Cantab., Cromwell-road, of St. George's Hospital.
Southam, Frederic Armitage, B.A. Oxon., Manchester, of the Manchester School.
Taylor, James, L.S.A., Bristol, of the Bristol School.
Thompson, Arthur Hirst, Gomersal, Yorks, of the Newcastle School.
Tuke, George Montague, Sittingbourne, of St. Bartholomew's Hospital.
Verrall, Thomas Jenner, Brighton, of St. Bartholomew's Hospital.
Walker, George, Cottenham, Wimbledon, of St. George's Hospital.
Wilkins, Robert Bird, Newport, Isle of Wight, of University College.
Wilson, Arthur Huelin, L.R.C.P., London, of St. George's Hospital.

The following gentlemen passed on the 19th inst., viz.:—

Atkinson, Richard, B.A. Cantab., Carlisle, student of the London Hospital.
Barrs, Alfred George, M.B. Edin., Leicester, of Guy's Hospital.
Batterbury, Richard Legg, Park-road, Haverstock-hill, of King's College.
Best, George Payne, B.A. Cantab., Brompton, of St. George's Hospital.
Bowen, Edward, Southsea, Hants, of Guy's Hospital.
Bradley, Robert, Shepherd's-bush, of University College.
Bradshaw, James Dixon, Bowden, Cheshire, of the Manchester School.
Bruce, Robert, L.S.A., Old-street, of St. Bartholomew's Hospital.
Cane, Howard, Queen-square, of University College.
Carter, Howard Bewley, Watling-street, E.C., of University College.
Chavasse, Thomas Frederick, Birmingham, of the Birmingham School.
Ellis, Joseph Watson, L.S.A., Willingham, Cambs., of St. Bartholomew's Hospital.
Foster, Henry, York, of the Leeds School.
Fraser, Donald Blair, M.B. Toronto, Shakespeare, Ontario, Canada, of St. Thomas's Hospital.

Griffith, David Chas. Ballinger, Surbiton, student of St. George's Hospital.
Hodson, Robert Doveton, Bath, of St. Mary's Hospital.
Honeywill, Silas, Lee, Kent, of University College.
Hyne, Frederick Alexander, L.S.A., London, of Guy's Hospital.
Mackay, James Jerome, Fermoy, county Cork, of King's College.
Parker, Arthur Frederick, Clifton, of the Bristol School.
Sloman, Herbert, L.R.C.S. Lond., Farnham, Surrey, of St. Bartholomew's Hospital.
Tirard, Nestor Isidore Charles, Curzon-street, Mayfair, of King's College.
Warren, Charles Edward Henderson, Edinburgh, of the Edinburgh School.

Four candidates were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College; and thirteen candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months. Dr. Sieveking, the recently elected Examiner in Medicine, took his seat on this occasion.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 13:—

Clarke, Reginald, Craven-hill, Hyde-park, W.
Colquhoun, Daniel, 73, Upper Kennington-lane.
Diggle, Charles Frederick, Todmorden, Lancashire.
Foster, William, Westminster Hospital.
Gascoigne, William Ellis, Spanden House, Derby.
Hanwell, Charles James, Bath.
Harrison, Edwin, Wrexham.
Head, Percy Turner James, East Grinstead.
Webster, John, Market Deeping.

The following gentlemen also on the same day passed their primary professional examination:—

Blaker, Thomas Fredk. Isaacson, Guy's Hospital.
Brown, Thomas Lloyd, St. Bartholomew's Hospital.
Shoulbred, Wm. Andrew, St. Bartholomew's Hospital.
Cardew, George Arthur, Queen's College, Birmingham.
Hornsby, George Harcourt, General Hospital, Birmingham.
Newton, Richard Arthur, General Hospital, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAYLEY, GEORGE S., Univ. Coll. Hospital.—Resident Clinical Assistant to the Brompton Hospital for Consumption and Diseases of the Chest.

GARLICK, GEORGE, M.B., M.R.C.S., &c., Univ. Coll. Hospital.—Resident Clinical Assistant to the Brompton Hospital for Consumption and Diseases of the Chest.

HEMSLEY, W. B., A.L.S.—Lecturer on Botany at St. Mary's Hospital, *vice* Dr. Trimen, resigned.

BIRTHS.

BARNES.—On April 14, at Hammersmith, the wife of Mr. E. C. Barnes, surgeon, of a son.

GRAY.—On April 9, at 19, Beaumont-street, Oxford, the wife of Edward B. Gray, M.D., of a daughter.

KILNER.—On April 5, at 104, Ladbroke-grove-road, the wife of W. J. Kilner, M.B., of a daughter.

RIDDELL.—On March 24, at Victoria Lodge, Mahableshwar, East Indies, the wife of Surgeon-Major G. D. Riddell, 1st Cavalry Hyderabad Contingent, of a son.

TWORT.—On April 13, at York Town, Surrey, the wife of W. H. Twort, M.R.C.S. Eng., of a daughter.

WALLIS.—On April 15, at East Lodge, Bexhill, the wife of F. M. Wallis, Esq., surgeon, of a daughter.

WILSON.—On April 8, at 25, Foregate-street, Worcester, the wife of James Wilson, M.D., of a son.

WOODGATES.—On April 12, at Southernhay, Exeter, the wife of Henry Woodgates, M.D., of a son.

MARRIAGES.

JACOBI—RANKEN.—On April 11, at Stuttgart, Joseph Wilhelm Conradine Friedrich Jacobi, Premier Lieutenant 7th Würtemburg Infantry Regiment, only son of the late Captain Jacobi, Royal Würtemburg Horse Artillery, to Jessie Agnes, daughter of the late William Ranken, M.D., of Glenlogan, Ayrshire, N.B.

PASMORE—BURRELL.—On April 12, at Holy Trinity, Penge, Frederick Rich, son of J. Pasmore, Esq., of Chelsea, to Emily Wilson, daughter of the late W. Burrell, Superintending Surgeon H.E.I.C.S., Madras Presidency.

SIMMS—COOPER.—On April 12, at Christ Church, Turnham-green, Frederick Walter, youngest son of John Simms, Esq., of 29, Warwick-gardens, Kensington, W., to Helen Rachel, eldest surviving daughter of Henry Cooper, M.R.C.S. Eng., of Moor-street, and Cumberland-villas, Acton, W.

TAYLOR—RANDALL.—On April 11, at St. Mary's, Stoke Newington, Arthur Norton Taylor, M.R.C.S., of Bovey Tracey, Devon, youngest son of Rear-Admiral William Norton Taylor, of Maida-hill, W., to Emily Lloyd, youngest daughter of Alfred Mayor Randall, M.R.C.S., of Park-crescent, Stoke Newington.

DEATHS.

FORSTER, CATHERINE MATILDA, widow of John Forster, F.L.S., late of 11, Hanover-terrace, Notting-hill, on April 15, at Brighton, aged 82.

IRELAND, JOHN JAMES, formerly Surgeon of the Oxford Militia, on Easter Day, at Weymouth, aged 72.

JONES, DOUGLAS KINNAIRO HOPE, infant son of Dr. A. O. Jones, on April 13, at Ore, Hastings, aged five months.

MACKAY, ALLAN DOUGLAS, M.B. Oxon., of Stony Stratford, on April 12, aged 45.

MILLER, JOHN MASSEY, Surgeon-Major (Retired) Madras Army, on April 3, of dysentery, at Ventnor, Isle of Wight, immediately after leaving the barque *Estrella di Chilli*, from Singapore.

MORGAN, CAMPBELL G. DE, F.R.S., Senior Surgeon of the Middlesex Hospital, on April 12, at 29, Seymour-street, Portman-square.

WILTON, Dr. JOHN, on April 11, at Sunderland, aged 80.

YOUNG, CHARLIE, only son of the late Charles Young, M.R.C.S.E., of Demerara, on April 12, at Hatfield Broad Oak, Essex, aged 11.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

COUNTY LUNATIC ASYLUM, SNENTON, NOTTINGHAM.—Assistant Medical Officer. Must be unmarried, and be registered under the Medical Act. Applications, with testimonials, to the Chairman of the Committee of Visitors, under cover to Kemp Sanby, Clerk.

ESSEX LUNATIC ASYLUM.—Second Assistant Medical Officer and Dispenser. Must be duly qualified to practise as a surgeon and apothecary, and single. Applications to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood, Essex.

ISLAND OF LEWS, SCOTLAND.—Medical Officer for the Parish of Uig. Applications, with testimonials, to Walter Rose, Inspector of Poor, Stornoway, N.B.

KING'S COLLEGE HOSPITAL.—Assistant-Surgeon. For particulars apply to J. W. Cunningham, Secretary.

MIDDLESEX HOSPITAL.—Physician. Applications to the Weekly Board before twelve o'clock noon, on any Tuesday until further notice.

ST. THOMAS'S HOSPITAL.—Assistant-Surgeon and Apothecary. Applications and testimonials to the Treasurer, Counting-house, Westminster-bridge.

WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—House-Surgeon. Properly qualified. Applications, with testimonials, to the Secretary of the Hospital, Leamington, on or before April 26.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Blaby Union.—The Aylestone District is vacant; area 7314; population 2663; salary £40 per annum.

Burnley Union.—Mr. W. Fleming has resigned the Marsden District; area 8915; population 11,547; salary £35 per annum.

Leicester Union.—The Fifth District is vacant; salary £80 per annum.

Tiverton Union.—Dr. Thos. F. Clarke has resigned the Bradwich District; area 4830; population 2060; salary £35 per annum.

Knaresborough Union.—The Harrogate District is vacant; area 13,069; population 9146; salary £45 per annum.

Mansfield Union.—Mr. J. W. Curran has resigned the Second District; area 8750; population 3272; salary £25 per annum.

APPOINTMENTS.

Droitwich Union.—Reginald M. Willan, M.R.C.S. Eng., L.S.A., to the Claines District.

Gower Union.—Charles G. Young, B.M. and M.C. Dub., to the Eastern District.

Grantham Union.—Fredk. Newcome, M.D. St. And., M.R.C.S.E., L.S.A., to the Ropsley District.

Plymouth Incorporation.—Joseph F. Eycley, L.R.C.P. Lond., M.R.C.S. Eng., to the Northern District.

St. Ives Union.—Wm. M. Davies, L.R.C.S. Edin., B.M. and M.C. Edin., to the Warboys District.

St. Pancras Parish.—Sydney L. Smith, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Eighth District.

Southwell Union.—Fredk. H. Appleby, M.R.C.S. Eng., L.S.A., to the Sutton-upon-Trent District.

Brecknock Union.—John C. North, B.M. and M.C. Edin., to the Workhouse.

Bridgnorth Union.—George Hodges, L.S.A., to the Second District.

Clifton Union.—John Moir, L.R.C.P. Edin., L.R.C.S. Edin., to the Sixth District.

Cockermouth Union.—Alex. A. H. Knight, M.D. Edin., L.R.C.S. Edin., to the Keswick District.

St. Giles, Camberwell, Parish.—Samuel Hague, L.R.C.P. Edin., L.R.C.S. Edin., to the St. George's District.

AT a Congregation held at Cambridge, March 30, the degree of Doctor of Medicine (incorporate from Dublin) was conferred on Henry Heygate Evatt Phillips (Christ's).

QUEEN'S UNIVERSITY IN IRELAND.—A meeting of the Senate of the University was held at Dublin Castle, on Saturday, the 15th inst., for the purpose of appointing Examiners in the Faculty of Medicine; his Grace the Duke of Leinster, Chancellor of the University, presided. The following Examiners were appointed:—*Medicine:* Henry Charlton Bastian, M.A. and M.D. Lond. *Surgery:* William Stokes, M.D. Dub. *Materia Medica:* Joseph Patten Pye, M.D. Q.U.I. *Midwifery:* John Guinness Beatty, L.K.Q.C.P. *Medical Jurisprudence:* William Stokes, F.R.C.S. Ire. The examinerships are tenable for two years, and the emoluments are—in Medicine and Surgery, £100 per annum; in the other subjects, £75 per annum.

VACCINATION AWARD.—The Local Government Board has awarded Mr. W. D. Wathen a grant of £12 16s. for the efficient state of vaccination in the Fishguard District.

PROFESSOR LATHAM'S LECTURES.—The Downing Professor of Medicine gives notice that he will resume his course of lectures on Materia Medica and General Therapeutics on Tuesday, April 25. The lectures will be delivered during the ensuing Easter Term in the new lecture-room, Downing College, on Tuesdays, Thursdays, and Saturdays, at 9 a.m.

THE NEW ASSOCIATION OF DENTISTS.—The inaugural meeting of the Association of Surgeons practising Dental Surgery will be held at the rooms of the Medical Society of London, on Wednesday evening, the 26th inst. The chair will be taken at half-past eight o'clock. The chairman will give an address, to be followed by a discussion on syphilitic teeth.

PROFESSIONAL EXAMINATIONS.—The following were the questions on Surgical Anatomy, and the Principles and Practice of Surgery, submitted to the candidates at the written examination for the diploma of membership of the Royal College of Surgeons on the 13th inst., when they were required to answer four, including one of the first two, out of the six questions, viz.:—1. Enumerate in their proper relations the various structures which would require division in excision of the astragalus. 2. What are the structures exposed to view by the removal of the entire sterno-cleido-mastoideus muscle? Mention the chief points of surgical interest associated with this region. 3. What causes may prevent union after simple fracture of the shaft of a long bone? Describe the appropriate treatment under different circumstances. 4. What may be the effects of a penetrating wound of the cornea? How would you treat its various consequences? 5. Describe the consequences of acute inflammation of cancellous tissue of bone, such as that of the os calcis, and the process of repair. 6. Describe the dislocation of the head of the femur when resting in the ischiatic notch, and enumerate the part likely to be lacerated. State and explain the nature of the deformity attending this injury. The following were the questions on the Principles and Practice of Medicine submitted to the candidates on the 15th inst., viz.:—1. Describe a case of typhoid fever, giving the appearances detected in the body on examination after death in the different stages of the disease; and state how you would distinguish such a case from one of typhus and of relapsing fever. 2. You are called to see a patient who has been found insensible in the street: what are the different causes on which his condition may depend? and how would you severally distinguish them? 3. What are the proportions of the chief ingredients in the following preparations of the British Pharmacopœia:—Tinctura opii, tinctura camphoræ composita, pulvis ipecacuanhæ compositus, pulvis cretæ aromaticus cum opio, pilula ipecacuanhæ cum scillâ, pilula aloës et ferri, liquor arsenicalis, liquor morphiæ hydrochloratis, vinum antimoniale, vinum opii? and state what are the purposes for which they are employed, and the doses in which they are to be prescribed.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

R. M. G.—We believe that we shall best answer your inquiry by referring you to Dr. F. A. Mahomed's papers on "The Physiology and Clinical Use of the Sphygmograph," published in our volumes for the year 1872. In our first volume for 1871 you will find also some lectures delivered by Dr. Burdon-Sanderson in the Physiological Laboratory of University College, Nos. V. and VI. of which are on "Arterial Movements" and the use of the sphygmograph.

Mr. A. Thompson.—"The Radcliffe Travelling Fellows" must be "M.A.'s" of the University of Oxford, entered on the study of physic. The Travelling Fellowships are tenable for ten years, five of which the Fellows must pass in parts beyond the sea, for their improvement in medical science.

A. S., Middlesex Hospital.—Messrs. Barraud and Jerrard have just published a capital and life-like photograph of the late Mr. Campbell de Morgan—the last for which he sat, only during the past month. The bust just deposited at the Middlesex Hospital is by the late Mr. Lough.

Bibliopole.—Gould's superb works are in the library of the College of Surgeons. A ticket for six months, on the recommendation of one or two Members of the College, will no doubt be granted on your written application to the Secretary.

Psychologist.—The Croonian Lectures by the late Dr. Conolly were published in this journal in 1849.

Obstetrician.—The Midwifery Board of the College of Surgeons is defunct, consequently there cannot be an examination as stated in the Calendar.

R. McC., Junior United.—The leading article to which you refer, "Relative Rank and Pay of the Army and Navy Medical Officers," appeared with others on the same subject in vol. xix., page 291 *et seq.*, of the *Medical Times*. The gentleman mentioned by you obtained the Blane Medal.

The Swiney Prize.—A correspondent inquires how often the Swiney Prize is awarded. It has been awarded to the late Dr. Paris and Mr. Fomblanque, to Dr. Alfred Taylor and Dr. Guy. Mr. Le Neve Foster, Society of Arts, Adelphi.

A Disconsolate Lady.—In another part of this journal you will find some observations on the subject. Call on Mr. Stone, at the College of Surgeons, who will tell you more than we can.

C. C., Southsea.—1. 1867. 2. "No man who hath tasted learning but will confess the many ways of profiting by those who, not contented with stale receipts, are able to manage and set forth new positions to the world; and, were they but as the dust and cinders of our feet, so long as in that notion they may yet serve to polish and brighten the armoury of truth, even for that respect they were not utterly to be cast away."—*Milton.*

Weatherworn.—

"But now, of turbid elements the sport,—
From clear to cloudy toss'd, from hot to cold,
And dry to moist, with inward-eating change,—
Our drooping days are dwindled down to nought;
Their period finish'd ere 'tis well begun."

W. Irvine.—We believe the original native country of the Indian wheat is not known. Dr. Royle has stated that it is probably indigenous to Central Asia. Others think that wheat is a native of Asia and Africa. Max Müller says that "wheat was known under the name of 'sueta,' meaning 'white.'"

J. P. McB.—The history of sanitary progress in India may be said to commence from 1861. An epidemic of cholera in that year in the northern provinces of the Bengal Presidency, from its terrible virulence, drew the attention of the Indian Government to the necessity of examining the local circumstances attending the outbreak. A special Commission was appointed, which met at Lahore on September 20, 1861, and this Commission has been called "the first crusade against cholera," the history of which is written in the "Report of the Cholera Epidemic of 1861 in Northern India."

F.R.C.S.—The late Mr. Anthony White, Senior Surgeon to the Westminster Hospital, was the first surgeon to excise the head, neck, and trochanters of the femur, the patient surviving the operation for twelve years, and then dying consumptive. The preparation is in the museum of the College of Surgeons. Mr. White's last publication was a pamphlet on the "Proximate Cause of Gout, and its Rational Treatment," a disease of which the author died, at an advanced age, on March 8, 1849.

INTEMPERANCE AND CRIME IN WOMEN.

On the great increase of female prisoners (the number being 842 against 205 at the April Sessions in 1875), the Chairman of the Salford Hundred Sessions, in charging the Grand Jury, last week, remarked that, without pretending to account for this unsatisfactory return, "it had been said that the sale of wines and spirits by grocers had, in a certain degree, produced habits of intemperance amongst females, and if that were so, it might be a cause for the increase of crime amongst them."

ACQUIRED APPETITES.

On the curious fact, in the history of our species, of the universality of the appetite for intoxicating drugs, Dr. Robertson says—"It seems to have been one of the first exertions of human ingenuity to discover some composition of an intoxicating quality, and there is hardly any nation so rude or so destitute of invention as not to have succeeded in this fatal research. The most barbarous of the American tribes have been so unfortunate as to attain this art, and even those who are so deficient in knowledge as to be unacquainted with the method of giving an inebriating strength to liquors by fermentation, can accomplish the same end by other means."—*History of America*, vol. i., p. 396, fourth edition.

TESTIMONIAL TO DR. MAURICE CORR.

Thirty years ago, when the position and emoluments of dispensary medical officers in Ireland were miserable, Dr. Corr devoted himself, at the request of the Council of the Royal College of Surgeons, to the task of securing from Parliament such legal enactments as would raise their status. As the delegate of the College, and subsequently as Assistant-Poor-law Commissioner, he successfully pressed on Parliamentary committees and successive Governments the need of a complete re-organisation of the medical charities, and, in fact, originated the reform which has raised so highly the position of dispensary physicians and quadrupled their incomes. His devotion to this work withdrew him from remunerative professional occupation. The position thus lost he was never able to regain, and he is now, at the close of a long life, in most straitened circumstances. His claims to the sympathy and assistance of his brethren were felt by the Fellows of the Royal College of Surgeons to be so strong, that, at the annual meeting in May, 1875, it was unanimously resolved:—

"That it is the opinion of this College that the faithful and very important services rendered by Dr. Corr to the College, and to its Fellows and Licentiates holding Poor-law medical appointments throughout Ireland, are hereby recommended to the Council for favourable consideration, with the view to remunerate him for those services, and for the serious sacrifices incurred by him in his endeavours to benefit his professional brethren."

To this resolution, however, the Council found that they could only give effect by appointing him to a temporary office at a small salary, in consequence of the legal obligations of their charter. The Royal Medical Benevolent Society has also contributed. A committee has been formed for the purpose of collecting from the members of the profession, especially

those connected with the Poor-law Service, a sum to supplement Dr. Corr's income, at present most precarious, and insufficient for giving him and his family the necessaries of life, inasmuch as the sums just mentioned were at once absorbed for debts previously incurred, and the renewal of such grants cannot be insured.

The following Dublin gentlemen have kindly agreed to act on the committee and receive subscriptions:—Dr. C. Benson, 42, Fitzwilliam-square West; Dr. Chapman, Hon. Sec. Irish Medical Association, 60, Pembroke-road; W. Colles, Esq., Regius Prof. T.C.D., 21, Stephen's-green; Dr. Darby, Bray; Rev. Prof. Haughton, T.C.D.; Dr. Hayden, Vice-President College of Physicians, 30, Harcourt-street; Dr. James Little, 24, Lower Baggot-street; Dr. O'Leary, M.P., 38, York-street; J. H. Wharton, Esq., 28, Upper Merrion-street; W. I. Wheeler, Esq., 56, Pembroke-road; Dr. Mapother, 18, Merrion-square North, Hon. Sec. and Treasurer.

COMMUNICATIONS have been received from—

Mr. John Hancocke Wathen, Fishguard; Mr. Geo. Gaskoin, London; Dr. E. D. Mapother, Dublin; Mr. F. E. Jencken, Dublin; Dr. C. Handfield Jones, London; Dr. Francis Ogston, Aberdeen; Mr. W. E. Poole, London; Dr. Smith, Wray-park, Reigate; Dr. Sparks, Cannes, France; Mr. B. R. Wheatley, London; Mr. Henry Morris, London; Mr. George Brown, London; Mr. John Chatto, London; Dr. Edis, London.

BOOKS AND PAMPHLETS RECEIVED—

Hutchinson's Illustrations of Clinical Surgery, fasciculus iii.—Die Sterblichkeit in der Stadt Pest in der Jahren 1872-73: Und Deren Ursachen, von Josef Körösi—First and Second Annual Reports on the Sanitary condition of the Goole Rural Sanitary District during 1874-75—Third Annual Report of the Secretary for Agriculture, Victoria, 1875.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—Yorkshire Chronicle—Westminster Review for April—Harrow Gazette—Boston Journal of Chemistry—Révue des Sciences Médicales for April—The Shield—Anales de Ciencias Medicas—Chemist and Druggist—The American Socialist—Pictorial World—New Orleans Medical and Surgical Journal for March—New York Medical Record—Nature.

APPOINTMENTS FOR THE WEEK.

April 22. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

24. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Semple, "On the Pathology and Treatment of Cerebral Diseases." Dr. Wiltshire, "On a New Operation for Rupture of the Perineum." Mr. W. B. Hemming, "On a Case of Unusual Obstruction of the Bowels from Gall-stones."

25. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On the Comparative Geology and former Physical Geographies of India, Australia, and South Africa."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. H. Morris, "On a Case of Intermitting Hydronephrosis, with Remarks on Hydronephrosis as a Cause of Abdominal Tumours." Mr. Donald Napier will exhibit a New Method of producing Local Anæsthesia.

26. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Mr. Rivington, "On a Case of Partial Rupture of the Popliteal Artery and Complete Rupture of the Popliteal Vein treated successfully by Primary Amputation of the Thigh." Mr. Corner, "On a Case of Transfusion for Collapse."

27. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

28. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Mr. Spencer Watson, "On Two Cases of Glaucoma treated by Sub-conjunctival Sclerotomy" (the patients will be exhibited). Dr. Buzzard, "On a Railway Case—Cerebro-Spinal Concussion with Glycosuria." Dr. Greenhow, "On a Case of Patent Ductus Arteriosus, attended by a Thrill and Murmur; Death from Phthisis."

Quekett Microscopical Club, 8 p.m. Meeting.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. G. J. Romanes, "On the Physiology of the Nervous System of Medusæ."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 15, 1876.

BIRTHS.

Births of Boys, 1163; Girls, 1028; Total, 2191.
Average of 10 corresponding years 1866-75, 2295·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	758	676	1434
Average of the ten years 1866-75	766·7	722·8	1489·5
Average corrected to increased population ...	...	...	1594
Deaths of people aged 80 and upwards ...	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	4	1	16	...	3	1	7
North... ...	751729	1	9	6	2	14	1	4	...	...
Central ...	334369	...	5	...	...	3	...	1	...	1
East	639111	...	7	6	1	22	...	1	1	4
South	967692	3	12	19	2	28	...	4	2	4
Total	3254260	4	44	35	6	83	1	13	4	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·606 in.
Mean temperature	40·8°
Highest point of thermometer	62·1°
Lowest point of thermometer	29·2°
Mean dew-point temperature	34·9°
General direction of wind	S.W. & N.E.
Whole amount of rain in the week...	0·69 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 15, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending April 15.	Deaths Registered during the week ending April 15.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2191	1434	62·1	29·2	40·9	4·94	0·69	1·75
Brighton	100632	42·7	51	31	58·0	29·7	41·0	5·00	1·03	2·62
Portsmouth ...	124867	27·8	64	39	...	...	...	...	...	...
Norwich	83430	11·2	49	31	61·0	29·2	40·6	4·78	1·10	2·79
Plymouth	72230	51·8	46	28	57·8	33·0	43·8	6·56	0·76	1·93
Bristol	199539	44·8	128	89	59·7	30·9	42·0	5·56	1·25	3·17
Wolverhampton ...	72549	21·4	40	34	57·5	27·9	39·7	4·28	1·14	2·90
Birmingham ...	371839	44·3	255	165	58·2	29·4	40·4	4·66	0·99	2·51
Leicester	113581	35·5	66	46	59·2	29·0	39·8	4·31	1·86	4·72
Nottingham ...	93627	46·9	43	56	69·4	26·9	41·9	5·50	1·46	3·71
Liverpool	521544	100·1	293	280	55·9	31·5	39·3	4·06	1·15	2·92
Manchester ...	357917	83·4	232	222	61·0	28·0	42·0	5·56	1·75	4·44
Salford	138425	26·8	82	73	58·3	27·1	39·9	4·39	1·57	3·99
Oldham	88609	19·0	79	50	...	...	...	...	...	...
Bradford	173723	24·1	110	89	68·8	30·2	40·8	4·89	1·11	2·82
Leeds	291580	13·5	186	139	70·0	30·0	41·6	5·34	0·92	2·34
Sheffield	274914	14·0	181	131	59·0	28·7	40·0	4·44	1·07	2·72
Hull	136933	37·7	99	48	57·0	28·0	40·5	4·72	0·66	1·68
Sunderland ...	108343	32·8	64	50	60·0	26·0	39·5	4·17	1·16	2·95
Newcastle-on-Tyne	139929	26·1	91	70	...	...	...	...	0·67	1·70
Edinburgh	215146	51·3	142	85	...	...	...	...	...	...
Glasgow	545144	90·4	449	308	51·7	25·0	39·4	4·11	0·44	1·12
Dublin	314666	31·3	112	141	60·0	22·5	39·2	4·00	1·04	2·64
Total of 23 Towns in United Kingdm	8028595	37·7	5053	3639	70·0	28·5	40·6	4·78	1·09	2·77

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·61 in. The lowest was 29·11 in. on Monday afternoon, and the highest 30·10 in. at noon on Saturday.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF

THE CROONIAN LECTURES ON THE PATHOLOGY AND RELATIONS OF ALBUMINURIA.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By W. HOWSHIP DICKINSON, M.D. Cantab., F.R.C.P.,
Physician and Lecturer on Pathology at St. George's Hospital;
Senior Physician to the Hospital for Sick Children, etc.

Lecture I.

After certain introductory remarks, the lecturer proceeded to say:—The organic conditions of persistent albuminuria may be broadly divided into three—

1. *Nephritis, Tubal or Diffuse*, the product of simple inflammation of the secreting structure, and of causes directed especially upon the renal function. This, though essentially tubal, may, if intense or long continued, involve the interstitial tissue in the inflammatory process, and supply the granular kidney with one mode of origin. At first localised as strictly as any other organic inflammation, it ultimately tells upon the whole body, and produces in a lesser measure the arterial and cardiac changes which are more largely developed with chronic disease.

2. *The Granular Kidney, or the Kidney of Chronic Interstitial Hypertrophy.*—In this, the fibroid overgrowth has begun as a solitary change, or has been left behind as the more persistent and at last the more prominent portion of a mixed inflammatory process. The general association of this organic state with a morbid condition of the entire arterial system is one of the leading characteristics of the disease, and involves questions which will need a somewhat cautious examination.

3. *The Lardaceous Kidney*, a condition in which this gland participates only in an infiltration which pervades many organs and structures, and is immediately due to a condition of blood in virtue of which it deposits in many arterial districts a material which is different from any of the normal constituents of the body.

The first begins with changes local to the kidney, but often ends in results general to the arterial system; the second is so constantly associated with arterial changes, that it is in dispute whether the renal and the arterial changes are cause and effect, or are simultaneous results of circumstances antecedent to both; the third begins, without question, systematically, producing renal disease only as one of a series of secondary organic changes.

Each of these conditions is broadly separate from the others, but yet has its points of contact with them. Nephritis at first tubal may end interstitially, and thus the large smooth kidney may, however rarely, yet in a recognisable minority of cases, become small and granular. The granular kidney, or the interstitial fibrosis which is its essential, though usually of independent origin, may take its rise in either of the other forms of change. And the lardaceous state, to complete the complicated relationship, may become associated with inflammatory processes, whether interstitial or by way of tubal catarrh.

I will trace in brief and general terms the origin, nature, and connexions of each disorder, touching somewhat more heedfully upon poinst which are of current pathological interest, or bear practically upon the art of healing.

1. *Tubal or Diffuse Nephritis*—for tubal nephritis so often begins diffusely or becomes diffuse, that no more definite line of separation can be drawn between them than between slight and severe—is a catarrhal exasperation of the secreting function, due to some excessive or unsuited stimulus. Mere tubal catarrh, with attendant obstruction and congestion, is, happily, in a large majority of cases, the only organic change. But, when the process is intense or persistent, it is apt to cause in the interstitial tissue a delicate supernucleation, which, in its early stages, may easily escape notice, but may lead in the end to obvious fibroid thickening. The results of this process, as presented to the naked eye, are swelling of the kidney, white or red as blood or epithelium predominates, smooth so long as the tubes only are affected, the smoothness to be succeeded by dimpling, or even by granular inequality of surface, should the interstitial tissues become involved, and time be given for consequent and gradual changes. For it may be laid down as an axiom in renal pathology that granulation invariably implies fibrosis. No mere tubal condition, whether of distension or collapse, breaks the superficial level. Thus, according to date and intensity, the following outlines may be drawn of the phases of renal inflammation.

a. The Congested Kidney.—The blood-dripping chocolate kidney of acute congestive nephritis.

b. The Large White Kidney.—Swollen and pale, either absolutely smooth, or with a surface but sparsely dimpled, dependent upon nephritis mainly, and from the first tubal, but which may have come to involve the intertubal tissue. Superficial depressions, if they exist, are a sign that it has become thus complicated.

c. The Contracting Kidney of Nephritis.—Granulating and fibrotic, like the granular kidney, of latent origin, not often thus ensuing upon acute inflammation, but to be recognised as a rare and late result.

The intimate mechanism of these several conditions may be briefly reverted to. The first noticeable changes are an excessive production of epithelium with an excessive influx of blood. The epithelial cells are swollen, but not necessarily changed in other respects. These accumulate and distend the tubes; and, cemented into cohesion by the solidifying fibrine which is discharged from the Malpighian bodies and exudes through the tube-walls, form more or less impassable obstructions. In some cases, blood also is extruded. The congestive type is well marked and often rapidly fatal. The kidney becomes gorged with blood and much swollen, usually as the result of some recent exposure to severe cold. The patient is an adult, usually a man. The gland becomes injected to a chocolate or to a plum colour; when cut, it drips with blood at every pore, and may—at least, I have seen it so in one instance—actually burst its capsule, so great and so sudden may be the swelling. In the slower forms of the disease, which are characterised by white enlargement, epithelial accumulation is the most obvious change. This may early become fatty under the process, as in many other instances fatty degeneration succeeds closely upon inflammatory action. When it occurs from scarlatina, the fatty change is less marked than when the disease has originated in cold. With the epithelial overgrowth, a fibrinous exudation is poured out both from the Malpighian bodies and by the walls of the tubes. When very abundant, it seals up the tubes with an impenetrable barrier, almost abolishes the secretion of urine, and gives to the complaint a destructiveness almost as rapid as is that of the most severe congestive form.

So much for the tubal interiors and the disturbance to which the inflammatory process is in most cases limited. But the inroads of disease are apt to overrun scholastic lines of demarcation. Morbid change, to be simple, must always be recent. When the disorder has been protracted, and even sometimes when of recent origin, the nuclei of the interstitial tissue multiply in a manner to which I have already incidentally alluded, sometimes to such an extent, that closely packed corpuscles are conspicuous almost to the exclusion of everything else. These are arranged concentrically around the Malpighian bodies, and are abundantly, but less regularly, sprinkled in each of the once pellucid bars by which the secreting elements are separated. This helps to give the extravagant bulk which belongs to the white kidney of old disease, and to render return to health impossible. The nucleation may outlast the catarrh, and be at last the only prominent structural change. Usually the two persist together, and, with tubal distension and intertubal nucleation, much increase of bulk, and a smooth surface, the large white kidney finds its close.

More rarely, time is given for the nuclei to develope into fibre, and the fibre to contract, causing the surface to become marked by depressions, which at first are few and far between, but afterwards become more numerous and closer, until, should the patient survive for as many years as the ordinary course of the disorder comprises months, a general superficial granulation may bring the organ into a condition which is difficult to distinguish from that of granular degeneration which has come on after its accustomed manner, not with an inflammatory outbreak, but with the slow and creeping advances which make it difficult to note when health ceased or disease began.

With regard to the question how long it takes the once smooth kidney of nephritis to become granular, I may refer

to a boy who died at the age of eleven, whose kidneys had become granular and contracted, as the result, apparently, of scarlatina three years before. In a girl who died of the same disorder at the age of twenty-one, it was traced with equal probability to scarlatina eleven years before. And to adduce a case which has not yet reached its conclusion, a girl aged sixteen is the subject of chronic albuminuria, undoubtedly associated with the granular kidney, the renal disturbance having distinctly succeeded upon the same exanthem no less than thirteen years previously.

We may pass now from the kidney itself to touch briefly upon those consequent changes in other organs and tissues which supply the disease with its chief mortality. Inflammatory affections take the first place in frequency and fatality. Those of the respiratory organs in especial are the more deadly, the more acute the renal disease and the younger the patient, until, with the nephritis of childhood, they, to say the least, do as much mischief as all the other results of the disease taken together. Among forty children who died of the disease, death was mainly due to pneumonia, pleurisy, or bronchitis in twenty, pneumonia being so far the most frequent as to have occurred in fifteen of the number. Among adult patients, these affections sink into insignificance as compared with dropsy and its results, and the effects of uræmia upon the nervous system. Inflammatory œdema of the larynx occurs in a small proportion of cases, but is not characteristic of one form of renal disease rather than another. The pleurisy which originates in nephritis will sometimes be or become suppurative, as also may the peritonitis which more rarely occurs in similar circumstances. When thus arising, it often proceeds insidiously, and remains unsuspected until it has produced its fatal result. As to the effects of uræmia upon the nervous system, convulsions are frequent, but by no means necessarily fatal with the disease as it occurs in childhood; they take place in about a fifth of the cases, causing death about half as often. In later life—that is, after the age of sixteen—such affections, together with a non-convulsive coma, are the main cause of death in nearly half the instances which terminate fatally.

Affections of the inflammatory kind, together with the cerebral results of uræmia—convulsion, and the like—are more declared in connexion with the nephritic and comparatively rapid form of disease than are the changes in the heart and arteries which are so constantly found with the chronic and granular kidney. But, in connexion with the origin of such vascular changes, it is of especial interest to inquire whether, in their lesser degrees, they ever ensue from disease like that in question, which begins locally to the kidney, and affects other organs, not by original participation, but by dependent disturbance.

I have examined somewhat carefully into the state of the arteries, together with that of the kidney, in as many well-marked cases of inflammatory disease as recent opportunities have allowed.

In the instances referred to, five in number, of which the duration of the disorder ranged from ten weeks to as many months, the arterioles were invariably thickened and the heart invariably hypertrophied. The arterial thickening was not always great, but was always beyond doubt, on comparison with the healthy condition. Reserving for the present any discussion as to the cause of the thickening, but speaking only of its nature, it appears to involve more or less both of the coats of the vessel, though neither to the extent noticeable with the granular kidney. The muscular coat is in general not greatly, but measurably thicker than in healthy vessels of the same calibre; while, at the same time, it becomes somewhat granular, or abnormally uniform or hyaline in texture, and its nuclei exhibit granular, apparently fatty, contents. The change in the nuclei is sometimes, as in the case represented in the diagram, the most noticeable among the early changes. With these I have satisfied myself that, even at the early period of disease to which these cases belong, there is some degree of thickening of the outer or adventitious coat, which, since it is to be seen under different methods of preparation, cannot be attributed to the reagents used.

It has been urged, as a source of error in observations as to the thickness of arteries, that it is impossible to tell how much of apparent difference may be due to inequality of vascular contraction at death, or by way of rigor mortis, in any two cases where the arteries may be made the subjects of comparison: and we might suppose a single pair, or a few pairs, of observations to be thus vitiated; but when, in a large number, the difference is found to be always on the same side, we may cease to torture our minds with doubts of this nature, but be content to attribute the difference to constant, not accidental, causes.

In the consideration of this part of the subject, it behoves us to use more than ordinary care, since it is difficult to exaggerate the importance of the conclusion—one as to which I myself entertain no doubt—that, under the influence of renal disease of inflammatory origin in a previously healthy subject, the arteries undergo changes similar in kind to those which accompany the granular kidney, however smaller in degree than those which belong to that more protracted complaint.

In the cases of which I have spoken, the hypertrophy of the heart was in some instances well marked, in others less so. There seemed to be no constant ratio in amount between the arterial and the cardiac thickening; where one was much, sometimes the other was little, as if the two were the independent and variable results of a condition antecedent to both. That these changes ensue upon disease at first local to the kidney is certain. But it is not so easy to assert that they occur independently of renal fibrosis. With the improved means of examination now at our command, it can almost always be found that, in the fatal cases in which alone the arterial thickening can be ascertained, the tubal disturbance is complicated, originally or by acquirement, with interstitial nucleation; so that, if we could conscientiously regard the multiplication of connective nuclei which is present in these cases as part of a general fibrosis, we might find in the vessels but an extension of the same constitutional change. But probably no one would thus explain these cases. The subject of each was a young and hitherto presumably healthy person; the attack in each began by way of glandular inflammation, and what ensued must necessarily be taken as its direct consequence, rather than attributed to a general deterioration which the kidneys have shared, but have had no part in producing.

With the arterial thickening, as recognised by the microscope, an increase of tension is to be appreciated by the sphygmograph, and even detected by the educated finger.

Besides the changes in the structure and in the fulness of the arterial system, are sometimes to be noted, when the acute dropsy has become chronically protracted, the retinal results of these conditions, the extravasations and white spots, which, though more frequent with the more chronic form of renal disease, are yet to be distinctly recognised in association with the inflammatory type which is at present under consideration. A girl nine years of age, the subject of chronic albuminuria, consequent upon scarlatina, had the hæmorrhages and spots in a very marked form; and I could adduce, did time permit, other instances where the same retinal change has ensued upon scarlatinal nephritis.

Thus, to conclude a crucial part of a debated question, vascular tension, hypertrophy of the heart, arterial thickening, and retinal hæmorrhage, are all found with, and, considering the tender years and previous healthiness of the subjects, are presumably caused by disease, beginning locally in the kidney, as the result of glandular inflammation.

2. *Granular Kidney.*—Passing now to the more chronic disorder—that which is recognised as the granular kidney, and occasioned by creeping fibrosis,—we have to describe a condition which begins with, and belongs essentially to, the connective and vascular structures which are external to the proper secreting elements. The change begins in disproportioned growth, somewhat of a rank luxuriance, in the fibroid tissue with which the arterial channels are uniformly fringed. Hypertrophy of this part leads to atrophy of all the rest. Creeping along the arterial lines with slow and hesitating steps, involving the organ not all at once, but by little and little, the disease makes itself felt not suddenly, but with so gradual a departure from health, that its date is usually indeterminable, and its existence unsuspected until it has reached an advanced stage. And in other respects, too, in its progress and symptoms, it affords a precise converse to the more acute disorder. One selects the young, the other the old. One is certainly local to the gland; it is in dispute how far the other is general to the system. In one case, dropsy is generally present; in the other, it is present only occasionally. One is characterised by obstructed ducts and suppressed secretion; the other by obstructed bloodvessels and secretion enhanced at least in its watery part.

To look more narrowly into the organic derangement proper to this more chronic disorder, it may be said to be accurately

declared by the superficial loss of level to which the term "granulation" is applied. This condition is only produced by a drawing in of the surface at certain points by a contractile growth, the distribution of which is determined by that of the bloodvessels around which it begins. Sometimes the granulations are small, regular, scarcely changed in colour, and evidently but mere exaggerations of the minute lobules into which the bloodvessels divide the surface; in other cases, the granulations are large and hemispherical, each conspicuous by the contrast between its white colour and the purple or pink depression by which it is surrounded. The light-coloured striking granulations result from a more active and dangerous form of the disease—one which involves deeper and wider injury to the gland, and more marked symptoms than those which are less noticeable. The contractile process, of which the granulation is the sign, usually involves loss of bulk and weight; but not always so; the atrophy of the glandular structure may be more than made up for by the new fibroid growth and the epithelial accumulation which is apt to occur as the result, apparently, of a catarrhal process set up in the course of the disorder. The essence of the disease, as it first takes substance and shape, is a multiplication of nuclei with subsequent fibrillation in the interstitial tissue. Spreading from the capsule inwards along the arteries, surrounding concentrically the Malpighian bodies, embedding, compressing, and strangulating the tubes in its path, while others for a time escape only to yield to its later encroachment, the growth overruns the gland little by little, after the manner of the invader who likened his scheme to the eating of an artichoke leaf by leaf. The new growth is widely distinguished from the original fibrous structure of the organ. It consists largely of nuclei, like fœtal structure or a fibro-plastic tumour. It occurs in great breadths between the glandular structures, as having thrust itself wedgewise between them, and displaced them by its increasing bulk. It gives evidence of active growth and development, not only by its spreading to the destruction of the older structures, but by the acquirement sometimes of quite a rich supply of capillary bloodvessels. These are sometimes to be traced by the blood they contain, in appropriate distribution through large masses of the intrusive material. That they are components of the new, not remnants of the old structure, is evident by the regularity of their arrangement, by their remoteness from any proper glandular structure, and by their delicacy of form; such that, isolated as they are, they could not, had they belonged originally to the organ, have resisted the obliterating agency of the encroaching growth which early and markedly affects the primeval capillary channels.

It is not necessary to do more than touch upon the changes in the gland which ensue upon its occupation by this growing and contracting material. According to its date, its bulky presence or its constricting results are the more apparent. The former is best seen in the rare granular kidney of childhood; the latter with the more common and chronic form which belongs to advancing life. The tubes are variously distorted, parcelled by the fibroid tissue into insular groups, cut up into cysts, and compressed to impenetrable threads.

Of all the structures of the kidney, perhaps the epithelium is that which suffers least. Early in the disease, it is usually absolutely natural; with advancing contraction, cells can usually be found which have become distorted by pressure into a variety of angular and abnormal shapes; but this part of the gland is but passively concerned in the process by which it is destroyed.

The accession of the fibrosis by slow, concealed, and partial approaches has been already described as the rule of the disease. But another outset must be distinctly recognised with an abrupt and definite inflammatory beginning. The disease may be an immediate, though slowly declared, sequence of acute diffuse nephritis.

I have already shown how more or less of interstitial nucleation is a frequent result of renal inflammation, which at first, so far as we can judge by its cause and by its symptoms, was chiefly or wholly catarrhal. The nuclei remain after the catarrh has subsided, and grow into fibre, which may be disposed generally and somewhat abundantly through the organ. This, in the early months of its existence, will simply add to the bulk of the gland without affecting its smoothness; but, as months become years, depressions appear, at first sparsely; these in time multiply and spread themselves with some regularity over the surface, until the superficial granulation is produced, which is the sign of chronic fibrosis. The organ simultaneously wasting, the granular and contracting kidney is developed, which, in its morbid anatomy, its pathological concomitants, and its symptoms, is indistinguishable from that of creeping approach and latent origin. The rise of the granular condition in acute inflammation, although not admitting of question, is one of the rarities of disease. The instances I have met with or recognised do not count as a fiftieth of those where the disorder has gradually developed. As a rule, the large white kidney of nephritis remains large, pale, and nearly smooth to the end; while the granular is a slow modification of the condition of health, divided from it by no abrupt change or appreciable interval.

With this, as with the more acute renal disturbance which lately occupied our attention, organs other than renal, and structures which are common to every organ, become involved in changes, some of which have been of late taken into question as to whether they are the direct consequences of the disease, or are but collaterally associated with it. Wide differences present themselves in the nature of the lesions by which each affection is accompanied; with the acute, the more important are those which depend upon changes in the blood, while changes in the vessels rather than in their contents rule the pathology of the chronic disease. Foremost, therefore, among the disorders with which the granular kidney is associated, must be considered that cardio-vascular alteration which has recently received so much notice. Briefly, this consists of thickening of the walls of the systemic arteries, together with hypertrophy of the left ventricle. As the two are constantly associated, the cardiac may be taken with little error as the indication of the compound change. In some cases, it is possible that, though anatomically the kidneys were granular, they were yet fairly efficient, and possibly the systemic conditions which belong to the developed disorder had not yet appeared. From a clinical point of view, regarding, that is, only those renal conditions which have been recognisable during life, the proportion of cardiac hypertrophy is so large, that this condition may almost be regarded as a necessary part of the systemic disturbance associated with this form of renal disease. Exceptions have been noticed with very advanced renal disease. The once hypertrophied ventricle may apparently lose its bulk with progress of time, as hypertrophic yield to degenerative changes, or in other modes less easy to discern. But, practically, there are few exceptions to the rule that, if the system be influenced, however obscurely, by this form of renal disease, hypertrophy of the left ventricle will not be looked for in vain. Enlargement of the heart, therefore, is a most important diagnostic of the granular kidney, or at least of the condition of renal fibrosis.

To pass now to the condition of the arteries found together with the ventricular thickening, we find changes which have been differently interpreted, and which require, in deference to conflicting opinions, a somewhat careful examination. I have examined specimens prepared for the microscope in different ways; some simply in serum or water, others in glycerine, and some which have been exposed to the action of spirit or chromic acid, and preserved in Canada balsam.

I have satisfied myself that the change is by no means a simple one, but that at least three broad modifications can be recognised as contributing in different proportions to the arterial change which is connected with the granular kidney: first, a thickening with alteration of texture of the muscular coat; secondly, a thickening of the outer or fibrous coat; thirdly, a degeneration which chiefly affects the muscular coat, but may in the end supersede every other morbid process, and replace all distinctions of coat by a mere confusion of granules and fat. To me it appears—and I speak with caution, for so compound is the usual result, and so variously mixed are its pathological ingredients, that specimens may be found which, taken by themselves, would seem to warrant any of the views which have been propounded as to the nature of the change—that the steps of the process take place in some such order as the following:—First, there is a thickening of the muscular coat, with degeneration or partial destruction of its nuclei, and the acquirement of a coarseness of fibre foreign to its normal appearance. This is succeeded or accompanied by more or less increase of the outer or fibrous coat, which sometimes, especially in cases of long standing, may even be more striking than the hypertrophy of the muscular. With these proceed alterations of a degenerative kind, fatty and semi-crystalline, which are chiefly of muscular origin, and are the chief agents in causing the brittleness of vessel to which the hæmorrhagic proclivities of the disease are largely due.

In the large white or nephritic kidney, where, from the more acute character of the disease, the changes are correspondingly earlier, the muscular coat is chiefly affected, and that rather by hypertrophy than degeneration. With the granular kidney, the thickening is more decided, and degenerative changes are more advanced. A semi-crystalline layer is often distinctly seen lining its inner surface.

With regard to the outer or fibrous coat, the action of reagents has been drawn into question, as possibly giving rise, by a delusive post-mortem imbibition, to the appearance of thickening which has been described. But such doubts may be fairly quieted by the consideration that in all instances—certainly in all those upon which these statements are based—the diseased vessels have been compared with healthy ones subjected to precisely the same treatment; so that any differences between the two necessarily depend upon the vessels themselves, not upon the circumstances which are common to both. Glycerine undoubtedly expands the outer coat, and displays its structure to the fullest advantage; yet its increase in association with the granular kidney can be clearly seen in Canada balsam, or after any mode of preparation by which the structures can be displayed.

To complete the catalogue of changes to which the arterioles in this disease are subjected, it must be added that they often, particularly when much degenerate, become extraordinarily irregular in outline, variously bulged, and sometimes corrugated and gnarled like the limbs of a time-honoured oak. Particles of hæmatine are often found about them, or even scattered thickly and widely in their neighbourhood.

These arterial and cardiac changes are usually accompanied during life with an increase of arterial tension, an unvarying fulness of the arterial system, in degree and continuance surpassing what is found in connexion with any other renal condition, or with any other morbid state with which we are acquainted. This is evinced by the hardness of the pulse, as evident to the touch, the absence of diastolic collapse giving to the vessel a cord-like persistence; by the force with which the sphygmograph must be brought to bear upon it before a graphic tracing can be obtained; by the abnormal pressure required to obstruct the vessel, as measured by the sphygmometer of Dr. Handfield Jones; and by the alteration in the sounds of the heart, especially by the accentuation and frequent reduplication of the second sound: evidences, as they have been interpreted, the first of the abnormal force of the diastolic recoil, owing to the repletion of the aortic system; the second, of the slowness with which, from the same cause, the left ventricle empties itself, so that the sound which succeeds upon the completion of the left systole is produced not synchronously with that which follows upon the right, but appreciably later.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF CHRONIC ECZEMA BY GLYCEROLE OF SUBACETATE OF LEAD.

By J. HANCOCKE WATHEN, L.R.C.P.

Two most able and interesting papers by Mr. Balmanno Squire appeared under the above heading in the numbers of this journal for March 18 and 25. Mr. Squire states his belief that the remedy he there advocates "had never been tried at all" by others. Having addressed a private note correcting this opinion, I would now, at Mr. Squire's request, offer some remarks which my experience of this remedy enables me to make.

So far from lead in the form of an ointment made with the subacetate liquor never having been tried before, my father has been in the habit of using it for the last thirty-five years in the treatment of chronic eczema as well as other skin affections; and ever since I commenced studying the profession, some sixteen years ago, its use has been familiar to me.

Mr. Squire has dealt so thoroughly with the subject that hardly anything remains for me to add, beyond offering my hearty testimony to the efficacy of the treatment he advocates. There are, however, some points of pharmaceutical difference between us which require notice, and, if not too wearying to my readers, I will describe the mode of preparing the ointment as we have generally used it.

After discussing the value of lead ointment made with the subacetate liquor and lard, Mr. Squire announced his preference for the combination of the liquor with glycerine. Of this combination alone I have no experience, as the preparation we use is that of lard, glycerine, and the subacetate liquor, which is prepared in the following manner:—Into one ounce of best clarified lard two or three drachms of glycerine is rubbed. After this has been incorporated the addition of the liquor is commenced; the lead is rubbed in until the lard becomes saturated and will not receive any more. In the manner and care with which this is done consists the whole secret of the success of this preparation.

If great care be taken to coax and tease the liquor plumbi in, as much as one ounce of the latter can be incorporated with the lard before it becomes saturated. This strength is at variance with what Mr. Squire states as the maximum amount of the liquor—viz., one drachm—that can be mixed with the lard. This may possibly be accounted for by the presence of the glycerine, which should be added *before* the liquor, as, if it (the glycerine) be mixed *after* the addition of the lead, the latter will all be driven out. As I have written above, much depends on the patience exhibited in rubbing in the liquor. By pressing and lifting the spatula from the surface of the lard, a number of cells are produced; over these the lead is poured, and gently rubbed in with the lightest of hands, and with a little skill a full fluid-ounce of the liquor should be taken up by a similar weight of lard. Some lards take up more than others; and the weather has an influence: if the weather be cold and frosty, the lard will take up a proportionately smaller quantity.

In the various states of chronic eczema of the moist type, as defined by Mr. Balmanno Squire in his paper (*vide* p. 331), the above ointment has been found of the highest value after other treatment has signally failed. While, on the one hand (as Mr. Squire has already pointed out), by the application of Goulard's lotion to an eczematous surface the diseased action can be extended *ad infinitum;* on the other, by the use of the ung. plumbi subacetatis (liquor), or (according to Mr. Squire) by the glycerole of the subacetate of lead, we have an expeditious and efficacious method of curing these eczematous affections. In applying it to the limbs, the better method is by spreading a number of strips of bandage with the ointment, and using the strips after the many-tailed plan. This gives support to the congested bloodvessels, and insures more perfect contact of the ointment with the diseased surfaces. I can thoroughly endorse Mr. Squire's statement as to the freedom from risk of lead-poisoning. Never has a single case occurred to me of the faintest suspicion of absorption of the lead into the system, although a considerable amount of surface has been enveloped in ointment—for instance, the whole of both legs, from knee down to the foot; and, unlike Mr. Squire's method, the application from one dressing to another is allowed to accumulate on the surface.

This ointment has been found of great service in relieving the suffering in some forms of pruritus, particularly that of the genitals and anus. Herpes preputialis has also given way to this remedy.

Were it not for fear of occupying too much space and becoming tedious, numerous cases could be cited of the above troubles which have rapidly yielded to the application of lead.

I have just learnt from my friend Staff-Surgeon E. Higgon Evans, R.N., that the form of ointment I have described has been used in that service with admirable results.

Fishguard.

PRIMARY APOPLEXY OF THE SPINAL CORD.

By Dr. EICHHORST.

In the first volume of the *Charité-Annalen* of Berlin are some very valuable contributions to the clinical history and pathology of certain nerve-disorders, by Dr. Eichhorst, and of one in particular—a case of apoplexy of the spinal cord occurring primarily and without any appreciable cause—we here give the main features.

The case bears a good deal on the disputed question whether primary hæmorrhage into the cord ever occurs. Eichhorst supports the affirmative view. Most English physicians (to whom the author makes no allusion), we believe, hold an opposite opinion; and Charcot, Koster, and Hayem are on the same side, asserting, as Eichhorst says, that hæmorrhage is secondary to a primary myelitis. This Eichhorst denies,

maintaining that myelitis is very often secondary to hæmorrhage. He points to analogous conditions in the brain, where hæmorrhages furnish a large contingent of cases of softening, and believes that the question cannot be settled by clinical observation, but belongs rather to pathological investigation. Experience teaches us that the substance of the spinal cord is but little prone to primary inflammations, and that these, when they do occur, are due to disturbances in the nutritive vessels of the part. Such inflammatory changes are characterised by a rapid increase in cells, but vascular changes are not always thus attended, the first occurrence being often a degeneration in the walls of the vessels, leading to rupture and extravasation of blood. Afterwards, two processes are commingled, aiding and abetting one another—viz., inflammatory changes, and secondary hæmorrhages. Thus Eichhorst believes the primary lesion to be vascular change and hæmorrhage; while Hayem, criticising reports of published cases of primary hæmorrhage and myelitis, denies that one single case should be included in that category. Eichhorst is of opinion that in the cord, as in the brain, apoplexies occur, some large, some small, some capillary. The former, as one would expect, come on with sudden and severe symptoms, whereas the latter have a long and dragging course. The first effect of a hæmorrhage must be mechanical, pressure of the nerve-substance depriving it of its function. But soon inflammatory symptoms appear, the blood acting as a foreign body and irritating the tissues into whose neighbourhood it is effused. It is clear, therefore, that the later stages of a hæmorrhage would exactly resemble a true myelitis, so that we could not determine the exact nature of the disease, whether primary hæmorrhage or primary myelitis. In such cases a double process would take place; so we should get mixed symptoms arising from hæmorrhage and myelitis. Experiments on animals, according to Eichhorst, bear out the views advanced, as does also the subjoined case:—

A. F., aged twenty-eight, a labourer's daughter, was up to the date of the present illness quite healthy. Her personal and family history was good. At sixteen she first menstruated. Menstrual periods since have been regular; sometimes painful. She last menstruated July 25 to July 27, 1874. Twelve hours afterwards she felt "queer" in the skin from navel to toes—the sensation being described as itching, pricking, and sticky. The legs quickly became rigid and powerless. She could not stand. There was retention of urine, with ardent desire to evacuate it. The same afternoon repeated involuntary painless twitchings seized the legs. Next morning these felt deadened; but during the forenoon pricking sensations recurred in the lower half of the body, a girdle-constriction round the abdomen above the navel was felt, and the left arm became weak. In the evening nothing was complained of but the "deadened" sensations.

On July 30 admitted to hospital. No explanation of her illness could be given. There had been no unusual exertion. There was no trace of nervous disease in the family.

She was well-formed, middle-sized, and free from trace of previous disease. She lay on her back, and, if raised and left unsupported, fell to one side. She lay, indeed, "all in a lump," crouching to the foot of the bed, the weight of the body flexing it over the flexed knees. The skin felt hot; the pulse was regular; there was no dyspnœa or œdema; previously mentioned subjective symptoms continued; the right arm was now not altogether as it should be; the face was pale, peaceful; the cheeks flushed slightly; the tongue clean; speech and swallowing unaffected; chest was well formed; the heart healthy; the bladder was distended as high as three fingers' breadth above symphysis; catheter drew off 1500 centimetres of urine, very acid and deep-red, otherwise healthy. There was no vomiting. Both lower extremities were paralysed; not changed in temperature, but the body below the navel sweated profusely, being above quite dry. There was loss of sensation to pin-pricking, and to strong electric currents in lower half of body. Slight repeated convulsions occurred in the legs, unknown to the patient. In the left half of the chest and in left arm was a partial loss of both power and sensation. There was no pain along the spine. The patient, put on a water-bed, was prescribed a dose of sulph. sodæ in infusion of senna.

On July 31, sensibility had failed up to the third rib on the right side. It was remarkable that the loss varied according as it was tried from above downwards or *vice versâ*, being, in the latter case, an interspace higher. Paralysis of left arm was more decided; right arm was failing. Electric irritability normal in all parts. Catheter drew off 1700 centimetres of urine like that of previous day. No motion passed.

On August 1, patient was restless and slightly delirious, after a bad night. Vomiting set in early. The face was flushed, but, as before, free from disorder of innervation. Tongue furred, but moist. The left arm was now completely paralysed; the right could be moved with great pain and difficulty. Profuse sweats stood on head and neck, the rest of the body being dry. Respiration became more and more laborious. The catheter was used. The patient passed a motion under her.

At one o'clock next morning she died, having become gradually comatose, and exhibiting symptoms of an intense œdema of the lungs.

The temperature, pulse, and respirations on the several days after the patient's admission to hospital were as follow:—

July 30.—Temperature, morning 100·4°, evening 101·8°; pulse, morning 92, evening 100; respirations, morning 24, evening 30.

31st.—Temperature, morning 99·1°, evening 101·4°; pulse, morning 100, evening 112; respirations, morning 30, evening 32.

August 1.—Temperature, morning 100·4°, evening 104°; pulse, morning 88, evening 80; respirations, morning 30, evening 40.

2nd.—1 a.m.: Death.

The interest of the post-mortem, of course, centred on the spinal cord. There was a marked lividity of the skin along the spine. The spinal pia mater was reddened throughout, and the vessels near the cord strangled and over-distended with blood. A centimetre above the lower end of the cord was a swelling, four centimetres long, of soft consistence, and, on section, jelly-like, and without the usual outlines. In the lower half of the dorsal region parts were firmer, and grey matter could be defined changed to a red hue. In the posterior cornua were numerous scattered blood-points, some running together into patches the size of a pin's head; smaller patches were seen in the lateral regions. In the mid-dorsal cord was a swelling, like that below, about half a centimetre in length. The upper half of the dorsal cord was also softened, and numerous blood-points obliterated the distinctions between white and grey matter. In some places the grey matter was quite destroyed. In the lower half of the cervical region were extensive blood-coloured patches—some larger than a hemp-seed—both in anterior and posterior columns, and particularly evident in the fascicular parts, especially on the left side. In the upper half of the cervical cord similar changes existed, and sections showed a greyish-red surface. The redness of the pia mater extended into the skull, but beyond this intracranial parts were healthy. In both lungs were signs of collapse, commencing lobular pneumonia, and of œdema. Other organs were, on the whole, normal. The uterus was virgin, and its mucous membrane reddened. There was a recent corpus luteum on the right ovary.

To determine whether the disease was a myelitis primarily, or a hæmorrhage, microscopic examination was particularly directed to the most recently affected parts—to the reddened spots in the upper cervical cord. A condition of vessel was here found sufficient to explain all subsequent changes, for they were distended and filled with blood-corpuscles, which were not increased in number, and showed no trace of fatty degeneration. The walls of the vessels were themselves normal, but their channels had become spindle-shaped or so sacculated as to resemble a string of beads. In these distensions the lymphatic sheaths also took part, and the sacculi were in places filled with corpuscles, as if these had been packed in them. In other places ruptures had occurred, usually at the point of greatest distension, but sometimes at the commencement of the swellings, and some vessels were quite empty, or contained only single rows of red corpuscles along the walls opposite the ruptures. In vessels of larger size, rupture and extravasation had taken place. In some the lymph-sheath had not given way, and was distended by blood, which had passed through the broken vascular walls, so that there was the appearance of dissecting aneurisms, such as have been long known in cerebral apoplexy. Here and there, immoderate, extensive, or rapid distension had ruptured the lymph-sheaths, with consequent extravasation into adjacent parts. Hæmorrhages into the nerve-substance and neuroglia had amalgamated all into one mass in many places. In parts thus (recently) affected, no fat-granule cells could be detected, such as are constant in inflammatory changes of the cord. By

extravasation, fascicles had here and there been broken up, and ganglion-cells destroyed. There was no change in the neuroglia of recently affected places. The vascular changes were especially manifested in the lumbar region. But here there had commenced a fatty degeneration both of vascular walls and corpuscles, and in places fat-granule cells betrayed inflammatory changes in nervous and gliomatous tissues. It would indeed seem, from microscopical examination, that there was first a capillary hæmorrhage, and that this was followed by an inflammation and degeneration, secondarily, of the proper cord-tissue.

Apart from these pathological results, the case is of great interest as showing with what rapidity changes may progress in the cord, depriving it of its functional capability. Eichhorst states that he has more than once seen similar cord-changes associated with menstruation. In most cases, however, the menstrual derangements were decided, such as suppression. Here the function had been almost perfectly normal up to the onset of the nervous disaster.

It is worthy of note that there was no occurrence of pain in any part of the spine during this attack, insomuch as the presence of severe and sudden spinal pain is usually considered as somewhat diagnostic of spinal hæmorrhage. This, at any rate, is the experience of most English physicians, if they are to be judged by their writings and teaching.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES OF CHOREA.

Case 1.—*General Chorea of Body—Treated as an Out-Patient for nine weeks—No Improvement.*

(Under the care of Dr. CAYLEY.)

A. C., FEMALE, aged five years, was admitted as an out-patient under the care of Dr. Cayley on December 31, 1872.

Patient had been a very healthy child up to three weeks before admission, when twitching movements of the hands and face were first observed. These have been getting worse daily ever since, and now the whole body appears to be affected. Choreic movements of the arms, legs, and face are almost constant; the tongue is also affected, so that articulation is difficult. Has had two or three attacks of epistaxis lately, and has wasted considerably since the commencement of the illness. There is no cardiac murmur.

To take a mixture containing ten grains of bromide of potassium and one drachm of cod-liver oil thrice a day. This was continued for three weeks, but without any improvement in the symptoms. One minim of Fowler's solution was then given three times a day, and was continued for six weeks, when the patient was lost sight of. When last seen, the condition of the patient remained unaltered.

Case 2.—*General Chorea—Treated as an Out-Patient for eleven weeks—Cured.*

(Under the care of Dr. CAYLEY.)

E. T., female, aged eleven years, was admitted as an out-patient under the care of Dr. Cayley on January 14, 1873.

Patient had been subject to periodical attacks of chorea for several years past. Present attack began about two weeks before admission. It affects both sides of the body and the face. Articulation is impaired. Has been getting worse daily. There is a loud hæmic murmer audible at heart's apex. Ordered one minim of Fowler's solution three times a day.

February 4.—No improvement. Articulation has become more difficult; very restless at night. To continue Fowler's solution, and to take a draught containing ten grains of bromide of potassium every night.

18th.—Patient is decidedly worse. Is now quite unable to speak, and has lost all power in the muscles of the hand. To take a mixture containing eight minims of tincture of belladonna and ten minims of tincture of iron three times a day, and a draught containing five grains of chloral every night.

25th.—Slight improvement in the general condition. Can now sleep well. To continue the day mixture, and omit the chloral draught at night.

The belladonna and steel mixture was continued for seven weeks, during which time the patient gradually improved, and she was discharged cured on April 1, having been under treatment eleven weeks.

Case 3.—*General Chorea—Treatment as an In-Patient for three weeks—Cured.*

(Under the care of Dr. SANSOM.)

E. B., female, aged twelve years, was admitted as an in-patient under the care of Dr. Sansom on May 14, 1873.

Patient has suffered from slight twitching of the hands for several weeks. Has been getting worse the last ten days. All the limbs and muscles of the face are now affected. A prolonged blowing systolic murmur is audible over a wide area about the apex, and a soft second-sound murmur over a small area half an inch below, and internal to the apex-beat.

This patient was ordered rest and full diet, and to take three minims of Fowler's solution three times a day. After a fortnight of this treatment the patient was much improved generally, and the chorea was decidedly less marked; the murmurs were not nearly so audible. By June 8 she was sufficiently recovered to leave the hospital.

Case 4.—*Bilateral Chorea—Treated as an Out-Patient unsuccessfully—Discharged Cured after three weeks' treatment as an In-Patient.*

(Under the care of Dr. SANSOM.)

F. T., male, aged four years, was admitted as an in-patient under the care of Dr. Sansom on May 26, 1873. Had previously been under treatment as an out-patient for some weeks, but without improvement.

There are now frequent choreic movements of all the limbs, also of the face. No cardiac murmur. Ordered rest, full diet, two minims of Fowler's solution three times a day, and the spine to be sponged with cold water night and morning.

June 7.—Patient is better.

10th.—Improvement continues. There is now very little choreic movement.

15th.—There is now no apparent choreic movement. Patient to be discharged.

Case 5.—*Unilateral Chorea—Treated as an Out-Patient for twelve weeks—Recovery.*

(Under the care of Dr. CAYLEY.)

T. D., male, aged ten years, was admitted as an out-patient under the care of Dr. Cayley on June 5, 1873.

The chorea is confined to the right arm, but the movements are so frequent that he is prevented from using it. Has had chorea for about two months. Patient states that it came on suddenly at night, and was accompanied by pain. The cardiac sounds are normal. To take the following mixture three times a day:—℞. Liq. arsenicalis ℥iij., tinct. ferri perchloridi ℥x., aquæ ʒss.; m.

The patient took this mixture for more than a month before any improvement was observed. He then began to improve and at the end of twelve weeks was so far recovered as to be able to use the arm. He then ceased to attend the hospital.

(*To be continued.*)

ST. GEORGE'S HOSPITAL.

TWO CASES OF REMOVAL OF A NEEDLE FROM THE FOOT.

[From notes by Mr. W. H. BULL, House-Surgeon.]

THE two following cases show how differently the same accident affects persons of different ages:—

Case 1.—N. J., aged ten, a healthy-looking girl, came to the hospital for advice on March 30, 1876, with the following history:—A week before Christmas she was walking on the carpet without shoes or stockings, when something all of a sudden pricked her foot. The head of a needle was found on the floor; but the mother, being unable to detect anything the matter with her foot, and seeing no blood, supposed it had only just pricked her, and consequently took no notice of it. Since that time she has walked more or less lame, and has suffered from occasional pricking sensations in the limb, which are increased on attempting to walk.

On making a careful examination of the sole of the foot, it was impossible to feel anything that corresponded to a needle, but on making a little pressure with the finger over one particular spot, pain of a pricking character was felt. Accordingly, Mr. Bull made a longitudinal incision about an inch in

length in the centre of the foot. On cutting through the plantar fascia the needle was, after some little difficulty, felt, and removed with forceps. It was an inch and three-quarters in length, and the course it took was obliquely upwards and inwards, so that its point was directed towards the inner side of the dorsum.

She attended once or twice as an out-patient, and was discharged on April 4, the wound having healed by first intention, and the patient being able to walk with perfect ease.

Case 2.—M. B., aged sixty-five, dressmaker, came up to the hospital with the following history on March 2, 1876:—While getting into bed on February 26 she stepped upon something sharp, which seemed to prick her in the sole of her foot. For the next few days she walked lame, and suffered a good deal of pain, which extended through the sole of the foot up to the dorsum.

On examination there was no swelling at all about the foot, and nothing could be felt in the plantar surface; but in the centre of the dorsum there was one tender spot, which caused a pricking sensation when pressed. In this region something sharp (like a needle) was to be felt immediately under the skin. Mr. Bull accordingly made a small longitudinal incision, and soon came down upon the end of a needle, which was very easily extracted, and measured an inch and a half in length. The wound was dressed with water-dressing, and M. B. was made an out-patient.

March 7.—The patient attended this morning, and stated that the day after the removal of the needle she was seized with a rigor, and, three days later, the foot began to swell and get painful and red. The right foot and lower part of the leg were red, œdematous, and boggy, and very tender to the touch. The patient was immediately admitted into the Wellington ward, under the care of Mr. Pollock, and an incision made over the dorsum. A few days afterwards a large quantity of matter formed in the sole of the foot. An incision was made in this situation, cutting freely into the plantar fascia, and a large quantity of pus was evacuated. The whole of the skin on the dorsum ultimately sloughed, and some of the tendons came away. The urine when examined was found to be perfectly healthy. The patient was put upon an effervescing saline, with a free supply of brandy (opium when required) and strong beef-tea and milk diet.

April 6.—The foot is now looking very quiet; all inflammatory action has ceased, and the dorsum is covered with healthy granulations. The patient eats and sleeps well, is feeling quite herself again, and will very shortly leave the hospital.

Professor Pettenköfer.—This eminent sanitarian, having declined the invitation to Berlin for the purpose of filling the post of Director of the newly formed Imperial Sanitary Board, received from King Ludwig a most flattering letter, investing him with the title and rank of Geheim-Rath, or Privy Councillor. On the refusal of the appointment by Prof. Pettenköfer, it was conferred on Oberstabsarzt Dr. Struck, Prince Bismarck's medical attendant.—*Wien. Med. Zeit.*, April 4.

Good News for the Dogs.—The *Gazzetta Medica Lombardia* (April 22) announces that Prof. Schiff has resigned the chair of Experimental Physiology which he so worthily and so laboriously filled at Florence. "His departure is not only a blow to science, but to common sense and true philanthropy. But the Florentine "Società Bestiofila" will have little cause for rejoicing at its victory, since neither is Prof. Schiff the originator of vivisections, nor will his successor, whoever he may be, be able to do without this now indispensable condition of progress of biological science."

Solubility of Salicylic Acid.—At the Therapeutical Society, M. Chassan, a *pharmacien*, stated that he has found the addition of citrate of ammonia to greatly increase the solubility of this acid, either in alcohol or in water. Thus, while 40 or 50 parts of rum are required to dissolve 2 of the acid, if 1 part of the citrate of ammonia be added, only 8 parts of rum are required to dissolve the 2 parts. If from $2\frac{1}{2}$ to 3 parts of the citrate be added, 120 parts of water will dissolve 2 parts of the acid; while without this addition 1000 parts of water would have been required. M. Chassan proposes the following formula:—Salicylic acid 4, citrate of ammonia 2, rum 30, and distilled water 164 parts; or this: Salicylic acid 1, citrate of ammonia 2, syrup 30, and distilled water 120 parts.—*Gazette Hebd.*, April 21.

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Medical Times and Gazette.

SATURDAY, APRIL 29, 1876.

THE DEBATE ON SYPHILIS.

No. III.

We have examined some points in the pathology of the secondary and tertiary symptoms of syphilis which arose in the debate, but we must not pass over the hypothesis of Mr. Hutchinson's, that with few exceptions "syphilis is the parent of phagedæna." Mr. De Méric attacked this view, and we think he re-echoed the opinions of the profession, but we are surprised that other speakers did not also express their dissent. It seems to us that it is stepping back rather into the regions of a dark and reasonless necromancy to symbolise Phagedæna as the monster evoked by the wizard Syphilis. Syphilis is rather the monster, and a monster of such Protean forms that syphilographers see it in everything, and everything in syphilis.

If phagedæna be syphilis,—if hospital gangrene be, as Mr. Hutchinson says, the result of contagion of pus from syphilitic sores,—should we not expect it to be amenable to the same specific treatment as the source from which it is presumably derived? And is it so? We think there is very little difficulty in answering "No" to the latter question.

What, now, is the pathological relationship between the secondary and tertiary sores? We have already referred to Mr. Hutchinson's theory, which forms the *pièce de résistance* of this pathological feast—the theory that the tertiary manifestations occur as recrudescences in the sites of previous secondary deposits. This hypothesis naturally called forth much criticism; and two of the speakers (Dr. Moxon and Mr. Simon) suggested other hypotheses, which must be noticed. We may summarise, in the first place, the arguments for and against the theory. For the theory, Mr. Hutchinson argued (*a*) that it best explained the symptoms; (*b*) that it was supported by Sir James Paget's observation that residual abscesses occur in the sites of old morbid processes, such as leech-bites; (*c*) that the primary chancre itself was some-

times re-indurated in the tertiary stage, as Mr. Henry Lee had shown; (*d*) that the tertiary neoplasms are met with in or near the parts most commonly affected in the secondary stage. Against the theory, we have the arguments (*a*) that other hypotheses would serve to explain the process equally well; (*b*) that analogy is not identity; (*c*) that the extreme rarity of tertiary sores at the site of the primary is a strong argument against the theory; (*d*) that, contrary to Mr. Hutchinson's experience, tertiary neoplasms do not occur where secondary have been noticed.

Dr. Moxon's remarkable speech, which was as full of originality as it was of humour, contained a counter-hypothesis to Mr. Hutchinson's. Instead of thinking that the developments of tertiary syphilis are due to the breaking out again of fires in already effete hearths, he was inclined to argue that it attacks such portions of an adult frame as have recently come into existence. They have not had their share of syphilis, and are bound to have it in their turn. They were virgin ground new struck, and the fever poison of syphilis raged with comparatively great freedom in it. This hypothesis did not receive the criticism that might have been expected, but it is naturally met by the question, Why should one patch of skin or one portion of liver be attacked, and not much larger areas, seeing that, after ten or twenty years, much larger areas must be new? And why should those particular patches have escaped the general syphilisation to which the rest of the tissues have been subjected?

Mr. Simon's views on the question were expressed with his usual clearness. He looked upon gummata as resulting from the weak action of a contagium which has been present in the body from the first. The irritant of this contagium, which in its stronger dose would produce an inflammation, in this late and weakened stage produces only hypertrophic phenomena—eventuates in tumour-formation. The weakening of the contagium was shown in the diminution of contagiousness and of hereditariness; and from this weakening came the chronic nature of the tertiary neoplasms, in contrast with the acute nature of the secondary. To this view Mr. Hutchinson made no reply; but it accords, we think, most with the opinions of pathologists generally. It does not explain why certain spots are affected by the irritant, whereas both Mr. Hutchinson's and Dr. Moxon's attempt to do so; but it is more than probable that local causes determine the selection of particular spots for these morbid processes, both secondary and tertiary, just as we see is the case with atheroma in the coats of vessels. There is a resemblance, as pointed out by Lancereaux, between the effects of alcohol and syphilis in this respect: they each act as acute irritants at first, and as chronic irritants afterwards; and just as in a drinker who has long abstained from strong liquors, so also in syphilis, long after the introduction of the original poison, we see the evolution of the malady go on.

Confining our attention still to the results of the debate as regards the acquired form of syphilis, we would ask now, What has been learned as to the duration of the disease? If we accept Mr. Hutchinson's distinction between the secondary and tertiary—that the former are due to a blood disease, and the latter only local,—then we must be ready to say with him that the disease ceases after the secondary manifestations. But although we dissent from this, we are, nevertheless, indebted to him for the practical conclusion which he draws partly from his theory, and still more from his experience—a conclusion which, however, accords equally well with the theory of gradually diminishing intensity of the contagium, and which has been arrived at by others. In his reply he stated that the cases in which syphilis is transmissible by inheritance for more than a year or two after its secondary stage are very exceptional; and he lays down a rule that a syphilitic man should therefore not marry until two years after the last appearance of any secondary symptoms. This is a very salutary rule, and one to be generally known and acted upon, whatever our theories may be. Sir William Gull, in expressing the opposite view, embodied it with his usual point in the words "syphilis once, syphilis ever," and we think this idea of the endlessness of syphilis prevailed among most of the speakers, for few subscribed at all thoroughly to the local theory of the tertiary symptoms. They rather accepted the view embodied in the words of our wisest bard, that

> "Rank corruption, mining all within, infects unseen."

It seems to us, however, that the duration of the disease will vary with three especial circumstances: the amount and quality of the poison, and the character of the soil in which the contagium is spread. Of these three factors two were touched upon during the debate by various speakers. The quality of the poison and the character of the soil were credited with their share of influence, but it may be asked whether the amount of contagium inserted is not equally important. We know it to be especially the case in vaccinia, the amount of virus inserted determining the amount of protection against further vaccinia or small-pox. We know, too, that the experiments which have been made as to the inoculability of syphilitic blood have given very different results in different cases, and that the contagiousness of syphilis, and the power of transmitting it to the offspring, are very different in different individuals. We see, too, cases of acquired syphilis, obtained from the same source, where the startling difference in intensity of the symptoms does not appear to depend upon the quality of the soil, but would seem to be due to some difference in the quantity or the quality of the virus. And may not quantity have quite as much to do with the question as quality? If contagium be, as is supposed, particulate, and the particles capable of inducing special ferment-like changes in the blood and tissues, we can hardly understand the likelihood of a difference in quality among these, seeing the symptoms are, within certain limits, alike—acute inflammations at first, and chronic ones later on,—but we can see the likelihood of a greater or smaller number of particles finding their way into the receiver's system, according to the quantity borrowed from the surface of the sore, and to the readiness with which they can pass through the tissues. Then, according to their quantity, so they will multiply if they find material in which to grow; and these two variable factors—quantity of particles and of pabulum—will determine the extent and duration of the disease. If the opinions of Dr. Wilks, Mr. Berkeley Hill, and Lancereaux be correct (which however, require, and are capable of, confirmation), that the extent of tertiary disease bears an inverse relation to that of the secondary, it might receive some explanation by supposing that a larger quantity of contagium inoculated produced more acute (secondary) effects, and that a smaller amount inserted destroyed the pabulum more slowly, and produced more chronic (tertiary) effects.

THE AMENDED CONJOINT SCHEME FOR ENGLAND.

A Scheme for a Conjoint Examining Board for England is again under consideration. The conference of the representatives of all the Medical Authorities in England, which has been holding sittings at the Royal College of Surgeons, has resulted in the adoption of an "amended Scheme," and this has now been sent for consideration to the several bodies concerned—that is, to the College of Physicians, the College of Surgeons, the Society of Apothecaries, and the Universities of Oxford, Cambridge, Durham, and London. The examiners are still to be nominated by "the Committee of Reference," but appointed by the co-operating Medical Authorities; and the appoint-

ments are to be apportioned among them according to the following plan:—

	Royal Coll. Phys.	Royal Coll. Surg.	Apothecaries' Society.	Universities.	Total.
Anatomy and Physiology .	4	4	0	2	10
Chemistry . . .	1	0	3	2	6
Materia Medica, Medical Botany, and Pharmacy .	1	0	3	2	6
Medicine	3	0	3	4	10
Surgery	0	6	0	4	10
Midwifery. . . .	3	2	3	2	10
	12	12	12	16	52

The first thing that strikes one, with disagreeable surprise, on examining this table is, that though the number of examiners is increased to fifty-two, yet there is not even one Examiner on Forensic Medicine. It is noted that "questions on Forensic Medicine are to be included among those asked by the Examiners on Chemistry, Medicine, Surgery, and Midwifery"; but, considering the importance that may any day attach to the possession of a fair practical knowledge of forensic medicine by any practitioner, and the grave issues that may depend thereon: considering also that the importance of the subject is so far recognised in our schools, that it is taught, or at least lectured on, by a specially appointed lecturer or professor, it does seem most strange that in the various schemes that have been erected for the new Examining Board no one has included an Examiner on Forensic Medicine. Similarly, it must excite some surprise that no mention even is made of State Medicine or of Therapeutics among the subjects of examination. Next we note, and with agreeable surprise, the increased powers gained by the Society of Apothecaries. Like the College of Physicians and the College of Surgeons, the Society is to elect twelve examiners; it is to appoint as many Examiners in Medicine as the Royal College of Physicians, and only one less than the four Universities put together; and it is to appoint also half of the whole number of the Examiners in Chemistry, and three of the ten Examiners in Midwifery. The position thus now granted to the Society of Apothecaries in the Scheme for the entrance examination to the profession is, we venture to say, but a just recognition of the great services rendered by the Society in improving the education and status of the general practitioner. It is significant of the spirit of compromise that has obtained in the production of this new Scheme to note that the College of Physicians, though it now tests the surgical knowledge of such candidates for its licence as do not already possess a qualification in surgery, and grants the double qualification, yet does not claim to appoint an Examiner in Surgery on the Conjoint Board; and similarly, that the College of Surgeons does not appoint an Examiner in Medicine, though it has now an examiner in that department on its staff.

The Appendix to the Scheme is a very important part, as it regulates the appropriation of the fees received for the examinations. One half of the whole is to be taken "for the payment of the examiners and other expenses incidental to the examinations," and is to be apportioned "in such manner as the Committee of Reference may determine, subject to the approval of the co-operating Medical Authorities"; but the appropriation of the remaining half is settled by the Scheme in the following manner:—*Two-sixths* "towards the maintenance of the Museum of the Royal College of Surgeons as an institution of national as well as professional importance, for its unendowed professorships, and other allied expenses"; *one-sixth* is to go to the College of Physicians, "in respect of qualifications to be granted"; *two-sixths* to the College of Surgeons; and *one-sixth* to the Society of Apothecaries, in like respect of qualifications. The College of Surgeons thus is to receive *four-sixths* of the sum remaining after the actual cost of the examinations has been provided for. It is most right that care should be taken to insure the maintenance of the Hunterian Museum, and we trust that this point in the Scheme will be assented to by all the co-operating Authorities; but we cannot but suspect that objection may be taken to such a "lion's share" of what we may call the net receipts being appropriated to the College of Surgeons in respect of its museum and of the qualifications to be granted. It remains to be seen, also, whether the College of Physicians and the Universities will, as bodies, follow their representatives in allowing to the Society of Apothecaries so much power in the appointment of examiners. If all the co-operating Authorities think that the establishment of a Conjoint Examining Board is a matter of the greatest professional and public importance, they will probably be guided by the same spirit of compromise and mutual concession as pervaded the conference of representatives, and then the Scheme will be approved of, as the last chance. But if the tone adopted by Sir George Burrows, when speaking in his last presidential address of the Conjoint Scheme, at all generally prevails, the amended Scheme will, like its predecessors, fail to gain acceptance. For ourselves, we cannot wish it success, though we think it the best Scheme that has been put forward; but we still hold that the Conjoint Examining Board Scheme, if put in action in each of the three divisions of the kingdom, would be a doubtful and hazardous experiment; while if carried out in England only, its effects are more than likely to be altogether disappointing, if not disastrous.

THE NEW REMEDIES IN FEVER.

Salicylic acid and salicylate of soda are at present attracting much attention in Germany for their property of reducing the temperature in febrile affections. We have already mentioned (*Medical Times and Gazette*, March 18, 1876, p. 311) the researches of Fürbringer, Mveli, and Wolffberg on this subject, and we propose in the present article to put our readers in possession of further observations, both clinical and experimental, which have recently been published. In the first place, as it was hoped that salicylic acid might become a cheap substitute for quinine in intermittent fever, it has been tried by several observers in that disease, but, unfortunately, with only limited success. Dr. Arnold Hiller, of Berlin,(a) gave it to twelve soldiers, of whom six had ague for the first time, and six were suffering from relapses, and he found that though it really exerted some curative action, yet that ten times as much salicylic acid must be given in ague to produce the same effect as quinine; that this action is only exerted on mild forms and those which are treated early, and is scarcely perceptible even in proportionately large doses in severe cases, or in those which have relapsed; that its action is not only weaker than that of quinine, but much less persistent; and lastly, that relapses occur earlier and more frequently than is the case with quinine. Dr. L. Riess(b) also found that while some cases in which he tried it were cured at once, others required repeated doses to produce an effect, while in the remainder it was necessary to give quinine before the disease could be subdued. Somewhat similar results were obtained in the out-patient department of the Augusta Hospital at Berlin under Prof. Senator,(c) so that as far as we can at present judge, salicylic acid is scarcely likely to compete with quinine in intermittent fever, more especially as in the large doses required it is, as Dr. Hiller proves, more expensive than the latter.

With regard to typhoid fever, a considerable number of observations have been made, and especially by Riess (*loc. cit.*), who gave the acid in the neutralised form, as salicylate

(a) *Deutsches Archiv f. Klin. Medicin*, Heft vi., 1875, pp. 611-31.
(b) *Berliner Klin. Wochenschrift*, 1875, Nos. 50 and 51.
(c) Ch. Johannsen, "Ueber die antifebrile Wirkung der Salicylsäure" (*Centralblatt*, No. 5, 1875).

of soda, in as many as 260 cases. Whenever the temperature rose above 39° C., five grammes of acid were given in one dose in a solution of carbonate of soda. Sometimes the first dose acted only slightly, but the effect was always distinctly marked in the later doses. In cases of moderate severity only one dose was generally necessary in the twenty-four hours, and from the middle or end of the second week only every thirty-six or forty-eight hours. From the third week onwards, the temperature seldom rose above 38°, so that, on the average, eight or ten doses in all were enough to keep the temperature almost normal. In spite of the reduction of temperature under the action of the salicylic acid, the frequency of the pulse was completely unaffected, although it often became stronger and less dicrotic. The severer cases, as well as those attended with delirium, were treated with a combination of cold baths with the acid, and it was found that under these circumstances the effect of the baths was more marked and more persistent than if they had been used independently. The treatment appeared to exert a distinct influence in shortening the duration of the disease; the average length of the febrile period in 164 cases which were treated early, and which ended favourably, being 13·1 days. This may be looked on as a good result, considering the malignant character of the particular epidemic, the total mortality of the 260 cases being 63, or 24·2 per cent. Dr. A. Fischer(d) has reported twenty-three cases of typhoid which were treated with salicylic acid and salicylate of soda in the Dresden Hospital, and, while admitting their antipyretic action, considers that, weight for weight, quinine is six or eight times as powerful as those drugs. Dr. Goltdammer(e) treated fifty-six cases of typhoid fever with the acid, chiefly in the form of salicylate of soda according to Riess's formula. He found that in the first two weeks of the disease the acid was most effective if given in the evening, but that when the period of morning remissions sets in it is best given in the morning, and at that time, too, smaller doses of it are required. Of the fifty-six cases, seven died; three of them from pneumonia. Dr. Goltdammer did not find, as Riess did, that the duration of the disease was perceptibly shortened by the treatment. Herr A. Nathan(f) has also published a few cases of typhoid fever treated with salicylate of soda, with very favourable results. Contrary to the experience of Riess and Goltdammer, he found that a considerable influence was exerted on the pulse and respirations, both of which diminished in frequency. We have already (*Medical Times and Gazette*, Feb. 5, 1876, p. 144) called attention to the action of salicylic acid in acute rheumatism. Other observers agree with Stricker, that in this disease the effect is almost specific. In fairness it should be stated that Dr. Buss, of Basle,(g) in his original paper, to which we owe our earliest knowledge of the antipyretic action of salicylic acid—distinctly stated (*loc. cit.*, p. 488) that he was inclined to ascribe a specific virtue to the drug in rheumatic fever. Dr. Riess has since made the same observation in fifteen cases which he treated, and, in fact, four of these only required a single dose, and three others two doses, to produce permanent improvement. The antipyretic effect of the acid exhibits itself in other diseases besides the above mentioned—for instance, in erysipelas, primary pneumonia, and the hectic of phthisis,—though observers are not entirely agreed as to the relative effect in each disease; but we gather from their statements that the depression of temperature which the drug produces has a somewhat transitory character. With regard to the form of administration, the observers quoted are divided among themselves, some preferring to give the pure acid, and others the salicylate of soda. Buss prefers the pure acid (salicylic acid two grammes, and sugar one gramme suspended in water), and he states that so little does it disturb the digestion that he has himself taken at one dose four grammes half an hour before luncheon without being able to discover that his appetite was in the least affected by it. According to him, patients with fever can take larger quantities than healthy persons, and he frequently gave six grammes at a dose suspended like an emulsion in water. On the other hand, Hiller (*loc. cit.*) is much opposed to the use of the pure acid, at any rate in ague, since doses large enough to reduce the temperature decidedly (five to eight grammes) are not only most unpleasant to take, but are liable to produce vomiting as well as a feeling of burning and tickling in the throat, and possibly to set up ulceration in the stomach and intestines; although there was no reason to suspect the latter events in any of Hiller's own cases. In consequence of the insolubility of the acid in cold water (1 part in 300) it is impossible to use a simple aqueous solution to reduce fever, since several litres would be required to introduce into the system an effective dose, and few patients would consent to be swamped, so to speak, with medicine, even if it were of a more agreeable kind than salicylic acid. The salicylate of soda seems, all things considered, to be the best form for administration, and it is probable that since the physiological action of the latter is equally powerful it will probably be preferred to salicylic acid in future by most medical men. Both the acid and the soda-salt agree in producing in full dose a sense of oppression in the head, and ringing in the ears. Buss describes a congestive period as occurring in healthy persons after doses of three or four grammes: in this there is a general feeling of warmth over the whole body, accompanied by general perspiration, and diminished acuteness of sight and hearing. This passes off in about a quarter of an hour, and the ringing in the ears succeeds about two hours later, and may last some hours or even a whole day when the dose has been very large. Copious sweats seem to be an almost constant effect of the remedy (Buss, Riess, Fischer, Goltdammer). Collapse has been noticed in a few cases. Goltdammer especially calls attention to this symptom, and states that in a slight degree it not unfrequently occurs. He mentions a case of acute tuberculosis in which the temperature was reduced to the normal by a five-gramme dose, but in which the collapse was so severe that the patient barely rallied. And in another case of severe typhoid fever in the fifth week the patient died in the collapse that followed a similar dose. It should be noted, however, that Riess, in a much larger number of cases, only met with this symptom three times. Ulcerations or erosions of the mucous membrane of the digestive tract appear to be of very rare occurrence. They were not found in any of Riess's post-mortems, although carefully looked for, and in two cases of death from intestinal hæmorrhage during typhoid fever which Fischer examined, it was proved that the blood came from the typhoid ulcers, and not from any erosions which could have been produced by the salicylic acid. One case is indeed reported by Goltdammer, in which five or six ulcers were found in the stomach of a patient with acute tuberculosis, who had taken in all twelve grammes of the pure acid; but these may possibly be explained by the lowered state of vitality of the patient's tissues, and also by some impurity in the drug used. There seems to be very little doubt that the discrepancies between the statements of good observers with regard to salicylic acid are in the main due to differences in the samples of acid used, and that in future those who administer it in large doses ought to be extremely careful that they have to do with a really pure acid.

(d) *Deutsche Zeitschrift f. Prakt. Medicin*, No. 13, 1875.
(e) *Berl. Klin. Wochenschrift*, 1876, No. 4.
(f) *Centralblatt*, No. 11, 1876.
(g) *Deutsches Archiv f. Klin. Medicin*, Heft. v., 1876, pp. 457-501.

THE BEGUM OF BHOPAL is reported to be building a free hospital in her capital as a memorial of the Prince of Wales's visit to India.

THE WEEK.

TOPICS OF THE DAY.

THE work of the new University College at Bristol is announced to commence in October next. The instruction in all except the strictly medical classes will be open to young people of both sexes. The Council are about to appoint a Professor of Chemistry and a Professor of Modern History and Literature. As the original object of the foundation of the College was the improvement of the scientific and technical education of the district, the promoters are gratified to find that their efforts in that direction have been recognised beyond their immediate locality. The Clothworkers' Company of London have spontaneously offered the handsome subscription of one hundred guineas per year for five years, to assist in the establishment of a department of textile industries at the College, in order to improve the technical education of those engaged in the cloth-making district of the West of England. The amount promised in Bristol alone towards the establishment of the College is at present nearly £20,000.

The Select Vestry of Richmond are at present engaged in important proceedings with the view of providing the parish with a constant supply of pure water. For many years the parish was supplied by the Southwark and Vauxhall Company with water drawn from the Thames at Hampton. In consequence, however, of complaints of quality, and insufficient quantity of the water from this source, permission was granted by the Local Government Board to raise a loan of £28,000 for the purpose of sinking an artesian well for the supply of the town. It will perhaps be remembered that a recent application made in Vice-Chancellor Malins' Court by the Southwark Company, to prevent the Vestry proceeding with the works, was dismissed with costs, and it has now been announced that there will be no appeal from this decision.

The Geneva Convention is gradually obtaining recognition at the hands of all European States, and it is now officially announced that Servia has notified her accession to it for the treatment of sick and wounded soldiers in time of war.

The latest telegrams to the Constantinople Sanitary Board indicate an increase in the number of plague cases in Mesopotamia, as well as an extension of the area infected. The *Levant Herald* of the 12th inst. publishes the following as the latest returns to hand:—At Hillah, in the space of five days—from March 27 to 31 inclusive—there were sixty-six fresh cases, and forty-two deaths. At Bagdad, from March 28 to April 1, there were 145 new cases, and seventy-five deaths. The plague in that city has now crossed from the right bank of the Tigris to the left bank, which previously had been free from the contagion. The epidemic has likewise made its appearance at Meshed, or Nedjef Ali, where, from the 25th to the 29th ult., there occurred five fatal cases, and also at Kut-el-Hamra. A severe quarantine has been established at Kournah, at the confluence of the Euphrates and Tigris, under the superintendence of Dr. Colmar; and it is also stated that the Persian Government has ordered that arrivals from Mesopotamia shall undergo a quarantine of fifteen days before entering the Shah's territory.

A fresh experiment—and one promising to be more successful than others which have been made—is being tried by Mr. T. Sutton Marshall on the possibility of importing meat from Australia and America in an uncooked and fresh condition; and a luncheon was last week served at the Cannon-street Hotel, with a view to test the qualities of the meat so preserved and imported. The method of preservation is for the present kept secret; but if, as we have before observed, Australian and American meat can be brought to the English market in the condition presented upon the occasion under notice, and sold for something like two-thirds the price now charged in this country, it will undoubtedly command a large sale, and prove a great boon to almost all classes of society,—always supposing that the prejudices incidental to a new and untried source of supply can be successfully overcome.

The Improved Industrial Dwellings Company are erecting buildings in Goswell-road (within a few minutes' walk of the General Post-office) on land leased to the Company by the Marquis of Northampton. The estate, when completed, will accommodate 386 families, or about 2000 persons. This Company has in occupation, and in course of erection, nearly 3000 houses, which will afford accommodation for about 15,000 persons of the industrial classes.

An excellent example has been set by the county of Herts, which is worthy of general imitation. An enthusiastic public meeting was held at Hertford, on the 8th ult., under the presidency of Earl Cowper, K.G., to arrange for the opening of a seaside convalescent home at St. Leonard's-on-Sea, for the reception of the sick poor of the county of Herts. The county members, the Hon. H. F. Cowper, Mr. Abel Smith, Mr. T. F. Halsey, and many gentlemen of influence in the neighbourhood, attended the meeting. It has been decided to begin on a small scale; and two adjoining houses in the Silchester-road, St. Leonard's, capable of receiving twelve male and twelve female patients, have been taken for three years. If at the end of that time the success of the institution is established, it is contemplated to build a home near St. Leonard's; and with this view a building fund of £3000 is being formed, of which amount about £1400 has already been subscribed. The annual subscriptions at present promised amount to nearly £300. With these, together with the interest of the building fund, and the payment of five shillings per week to be made by the patients or their friends, it has been determined to begin at once. We have no doubt that under the auspices of the noblemen and gentlemen who have taken the matter in hand the result will be a success, and the institution prove a real benefit to the sick poor of the county of Herts.

A deservedly severe fine has recently been imposed upon a schoolmaster for exposing boys suffering from infectious disease. Mr. Edmund Couldery, proprietor of Mountcharles House School at Lewisham, was summoned at the County Police-court, Canterbury, at the instance of the Bridge Rural Sanitary Authority, for wilfully exposing two boys who were suffering from scarlet fever. He pleaded guilty. The boys were sons of Sir Courtenay Honywood, Bart., and were sent home on separate days to Chartham with a rash upon them, which proved to be scarlet fever. They travelled in a third-class railway-carriage from Lewisham to Cannon-street, and thence down to Chartham. The Bench inflicted a fine of £3 and £4 16s. 10d. costs in one case, and £5 (the full penalty) and the same amount of costs in the other.

An inquiry was held last week before Dr. Hardwicke, at Hanley-road, Camden Town, respecting the death of a gentleman who fell down suddenly in High-street, Camden Town, and who, upon being removed on a stretcher to University College Hospital, was found to be quite dead; and the Coroner used the opportunity to remark that the custom of using stretchers for the conveyance of sick persons to hospitals was a wretched and disgraceful one. In Brussels and other parts of the Continent the police used something that was placed on two wheels, and over which there was a cover. We are certainly of opinion that this rough and ready method of carrying patients is open to much improvement; but it is wonderful to notice, notwithstanding the steady increase of appliances of all kinds, how persistently, in many things, we cling to the custom of our forefathers.

The project which we noticed some time ago for planting ome of the principal throughfares of London with trees is

likely to be at once adopted. The Vestry of St. Pancras have recently decided to plant with trees the entire length of the Camden-road on both sides; and we believe the Marylebone Vestry have come to a similar decision with regard to ornamenting Portland-place. In addition to these arrangements, it is notified that other vestries and district boards of works have bestirred themselves in the matter; so that with the example of the Thames-embankment to encourage them, there is every prospect of the metropolis shortly being endowed with pleasant shade-provided streets. It has been suggested that the Metropolitan Board of Works should undertake the systematic planting of all the metropolitan thoroughfares adapted for this purpose; but as the details are not very intricate, and that Board already has its hands full with more important duties, it would perhaps be best to leave this adornment of the streets in the hands of the respective parishes. The idea is certainly a move in the right direction: the trees, when grown, will act as purifiers of the air, and in hot summer weather will afford some slight shelter in the thoroughfares where they are planted; and as the rapid and persistent growth of the great city annually removes the country farther from its inhabitants, it will be something to have a few green trees growing up amongst those whose opportunities of seeing them in the fields are few and brief.

The Metropolitan Asylums Board has just presented to the Local Government Board a statement regarding the Homerton Fever and Small-pox Hospitals, showing the use to which the Hospitals have been put, for the treatment and isolation of the pauper poor, since their completion under Gathorne Hardy's Act of 1867. These Hospitals are designed on the pavilion principle—that for fever having five pavilions, with accommodation for 200 patients and the staff, each class of fever being separately provided for; while that for small-pox has four pavilions, providing for 102 cases. The last-named Hospital had to be hastily finished to meet the demands of the small-pox epidemic in 1871, when the Fever Hospital was at once filled, and tents had to be erected in the grounds, while the corridors of both Hospitals were filled with beds. At one time the Fever Hospital had 284, and the other 152 patients suffering from small-pox. In all, 4372 cases of this disease were treated in the Hospitals, of whom 811 died, and 3561 were discharged recovered. The mortality was 35·6 of the unvaccinated and 7·6 of the vaccinated. Since being opened for the treatment of fever the Hospital has received 3490 cases—viz., 528 of typhus, 884 of enteric, 1142 of scarlatina, 378 of simple continued fever, and 558 "other diseases." The Small-pox Hospital is now empty, but has been twice used for fever cases on emergencies. The staff is lessened, but the most necessary offices are filled up so that expansion will be easy.

THE HEALTH OF INDIA.

Captain Douglas Galton, C.B., D.C.L., last week read a paper before the Society of Arts, on the Sanitary Progress of India. The paper was of great length, and embraced a mass of matter on the general condition of the country, considered from the sanitarian point of view, and on the efforts, and direction of the efforts to improve that condition. Captain Galton maintained that there was no subject of greater importance to the vast population of that empire, but to apply our hygienic knowledge to benefit them would be an Herculean task. Precautions against disease were tenfold more necessary there than in this country. The basin of the Indus contained districts where the average rainfall was as low as six inches in the year, while the Ganges rose as high as 370 inches: this showed the varying climate of the country. Down to 1862 the neglect of sanitary administration in India had been most grievous, and the result was that from the time of the establishment of our empire there the death-rate of the British army had been enormous. It was shown from the Report of the Royal Commission of 1862, that from 1830 to 1845 the deaths of the European army in Bengal averaged 67 per 1000, of which number 58 per 1000 were from zymotic or preventable diseases. The European army in India now amounted to about 60,000 men, and, had the death-rate of former times continued, the population of Great Britain could scarcely have stood the drain upon it for recruits. But the death-rate in 1874 was only 13·58 per 1000; yet the mortality from preventable causes was still too great, for in years of cholera epidemic it would be largely increased. We had now provided the soldier with barracks of unsurpassed accommodation, good food, and agreeable occupation; but outside the barracks the insanitary agents had a depressing effect on him. The surface of the ground in and around the villages and towns was covered with filth of every kind. Streams were befouled; tanks used for drinking-water were also used for bathing, and, with wells, formed the receptacles sometimes for dead bodies; while cattle and sheep were largely fed on manure. In Delhi, the ill-constructed underground drains were vast cesspools. Burmah, however, had learned and improved, and no place in India could show healthier inhabitants. Fever in 1874 added 1,644,342 to the number of deaths. In one district an increase in the fever deaths was attributed to the effect of the irrigation canals. In another district, in 1872, almost every human being was suffering from fever; and afterwards it was stated that the population had decreased from 46,121 to 32,687 inhabitants. Cholera was also most deadly; there was no country where it was more sudden in its appearance, or more rapidly fatal. There also appeared to be a district where cholera was endemic. Cholera was aided by the congregation of large bodies of people at the famine-relief centres, and in pilgrimages; these latter had now been placed under sanitary regulations by the Government, and good had resulted therefrom. At the root of the whole question of the sanitary improvement of India lay the question of an accurate registration of births and deaths of the population. But a census was fraught with great difficulty, from the superstitious ignorance of the people. Next to that came the question of vaccination; it was slowly making its way, but the people were indolent, and only the lower portion of the population submitted to it. Captain Galton regretted that medical men acting as sanitary commissioners had their time wasted in preparing reports, when they should be employed in inspecting. The education of the people themselves in the appreciation of the real value of "sanitation" would alone solve the difficulty of the question. The Government of India had set itself a gigantic task; and though the progress of sanitary reform there had no parallel in the history of the world, each step forward had only shown how much had still to be done. To arrest the enormous waste of national health and wealth it was necessary to remove the sources of contamination of the air and water. These depended on the people; but causes of disease arising from the construction of irrigation works depended for their removal, to a great extent, upon the Government. A short discussion followed the reading of this paper, in which Dr. Boycott, Dr. Burr, and others took part.

SANITATION IN YORKSHIRE.

From the annual report of Dr. Parsons, Medical Officer of Health for the Goole Rural Sanitary District, for the year 1875, we learn that no serious attempt is being made by those who are responsible for the carrying out of the Public Health Acts to effect improvement in the sanitary condition of the district. The Goole Rural Sanitary District consists of fifteen townships, scattered over an area of about 40,000 acres, and containing an aggregate population amounting to nearly 10,000. Of these townships the following appear

from Dr. Parsons' report to contain many sanitary defects which require immediate attention :—In Pollington, the dwellings are old, ill-ventilated, and ruinous; privies abut on the houses; foul, stagnant ditches and accumulations of filth are too frequent,—one ditch, in particular, exhales most offensive odours, and pollutes the wells in the neighbourhood. In Rawcliffe, the house-property is in a most unsatisfactory state; nuisances abound on every side; there is no drainage but stagnant ditches at the backs of the houses, and road-drains which are unfit to convey sewage; there is hardly any water fit to drink, that from the sewage-polluted Aire being chiefly used. The sanitary condition of Swinefleet is described as deplorable. The houses are badly constructed, the drainage defective, and there are not adequate means of disposing of the night-soil; in consequence, disgusting accumulations of refuse occur. None of the wells yield drinkable water, the chief supply for domestic purposes being derived from rain-water cisterns. Here infectious diseases find a congenial home. In May of last year scarlet fever was introduced, and held its ground until the end of the year; about a hundred cases occurred, sixteen of which proved fatal. The total number of deaths in this township last year was forty-four, equal to a rate of 33·3 per 1000. The chief reason of the unsatisfactory state of the district, according to Dr. Parsons, is that the Sanitary Authority, instead of carrying out the execution of the Public Health Act themselves, have deputed their functions to a series of parochial committees. These, as a rule, are disinclined either to expend public money or to disoblige a neighbour by requiring him to abate a nuisance. In some cases the most objectionable property is owned by members of the parochial committees, who, of course, will not condemn their own property. When notices to abate nuisances are served on owners of property, they are, as a rule, unattended to, as, in case of non-compliance, legal proceedings are never taken. Dr. Parsons has done his duty in pointing out the sanitary defects of the district, and he deserves great credit for his courage in not sparing the Sanitary Authority for their supineness. It is to be hoped that the members of that body will be earnest in fulfilling the duties that devolve upon them, and support their Medical Officer of Health in carrying out those measures which are necessary to protect, as far as possible, the health and lives of the humbler classes who form the bulk of the population in the townships of the Goole Sanitary District.

THE ARTISANS' DWELLINGS ACT IN WHITECHAPEL.

Last week a very important inquiry was held by Mr. Cubit-Nichols, under the authority of the Secretary of State for the Home Department, respecting a scheme promoted by the Metropolitan Board of Works under the Artisans' and Labourers' Dwellings' Improvements Act, with reference to the Whitechapel and Limehouse districts. The area proposed to be dealt with comprises about six acres and three-quarters of land, on which at the present time are crowded together 444 dwellings, containing 4350 occupants. These are for the most part Roman Catholics, almost all being Irish. The men are chiefly dock labourers and rope makers, and the majority of the female portion are engaged in rope-making. The houses generally are unfit for human habitation, the internal sanitary arrangements being very deficient. Overcrowding exists to a great degree, and there is no proper separation of the sexes. The necessity for carrying out the proposed improvements was very strongly urged by the medical officers of health of the districts. Dr. Liddle, Medical Officer of Health for Whitechapel, stated that the density of the population of the district in some of the courts within the space proposed to be dealt with was so great as to give only three and a half square yards for each person, as compared with twenty-six square yards, which was the average for the whole district. The death-rate varied from 38 per 1000 to 41 per 1000, as compared with the average of 26 per 1000. There were a great many cases of consumption, scrofula, and other diseases, indicating a deficiency of ventilation and defective sanitary arrangements. Mr. Joseph Loane, Medical Officer to the Aldgate District of the Whitechapel Union, confirmed Dr. Liddle's evidence generally, and stated further that he acted as surgeon during the cholera epidemic in 1866, and it was most severe in this particular area, which was also the case with the small-pox and fever epidemics. The death-rate in the Aldgate District was 58·84 per 1000 in a population of 3750. Of the deaths from October, 1873, to April, 1874, 36 per cent. were due to consumption and other chest diseases, as compared with 22 per cent. outside the area. In 1875 the deaths from the same cause in the area were 70 per cent. Mr. G. A. Rogers, Medical Officer of Health for the Limehouse District, stated that the houses comprised in the scheme were decidedly unhealthy and unfit for human habitation. The death-rate in the area during the year 1874 was 48 per 1000 as against 23·9 per 1000 in the other parts of the district. The necessity for carrying out the proposed scheme has thus been so clearly demonstrated, that we have no doubt the necessary consent will be given to its being proceeded with forthwith.

A HOSPITAL FOR INFECTIOUS DISEASES WANTED AT BRIGHTON.

At a recent meeting of the Brighton Town Council, Dr. Stephens directed the attention of his colleagues on the Council to the recommendations of Dr. Taaffe, the Medical Officer of Health for the borough, with respect to the need of certain sanitary reforms, more especially the provision of a hospital for the isolation of persons suffering from infectious diseases. As Dr. Stephens pointed out, it is most important that a town which claims to be the premier health-resort in the land should possess the means of preventing, as far as possible, the spread of contagious diseases. At present, rooms at the Union workhouse are utilised for the purpose of isolating cases of infectious disease when necessary, but it will be readily understood that many persons object to send their relatives to the workhouse. The Town Council of Brighton will, we have no doubt, take an early opportunity of giving effect to the recommendations of their Medical Officer of Health on the question of establishing a hospital for the treatment of cases of infectious disease.

THE ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

We believe that Sheffield has come to the aid of the British Medical Association in the difficulty in which they have been placed by the division of feeling in Brighton, and the death of the President-elect, the late Sir J. Cordy Burrows. There can hardly be any doubt, we suppose, that the choice of Brighton as the place for the annual meeting of the Association this year was a mistake, into which the Council were led by a "fortuitous concurrence" of circumstances, which it would now be very profitless to discuss, even if we had, as we do not pretend to have, any full knowledge of them all. We may, however, out of consideration for the Council of the Association, say—and, we imagine, very safely say—this much. It was intended that the Association should meet at Manchester; but on account of the serious illness of the late Mr. Southam—who, we believe, was to have been proposed as President-elect—a change of plans had to be made late in July. The general meeting in August had a choice of places before them, but it is well known that the great press of work and play during the annual gathering of the Association makes its general meetings anything but good business and deliberative meetings, and it is no wonder that the energy and enthusiasm of Sir J. Cordy Burrows secured the acceptance of the Brighton

invitation before that from Liverpool. Of what has happened since as regards that choice we will not again speak. The Sheffield invitation comes very happily; and, from what we hear, it appears to be a hearty one. We understand that the invitation was proposed at a meeting, called at a very short notice, of the local branch of the Association, and that the movement has been very cordially received. We hear that the invitation received by the Committee of Council of the Association has been signed by 130 medical men, including the whole of the working staffs, with two exceptions, of the three Hospitals and the Medical School of Sheffield, and that more than £700 was within a fortnight subscribed to the guarantee fund. We trust that all will now go on well and happily. It would be a great pity should anything like a failure break the succession of prosperous and successful annual meetings of the Association. At the same time, we may venture to hope that what has happened will be a warning to the General Council not to presume too much on the prosperity and smooth sailing of late years.

ARTISANS' DWELLINGS IN DUBLIN.

A HIGHLY influential meeting, convened under the signatures of Sir A. E. Guinness, Bart., M.P., and six other leading citizens of Dublin, for the purpose of considering the best means of improving the dwellings of the industrial classes in that city, took place in the Shelbourne Hotel, Stephen's-green, Dublin, on Saturday, April 22. The chair was taken by Sir A. E. Guinness. Mr. Jonathan Pim moved, and Dr. Gordon, President of the King and Queen's College of Physicians, seconded, a resolution to the effect "That inasmuch as the houses at present occupied by the artisans and labourers of Dublin are to a great extent of such a character as to be highly injurious to the moral and physical welfare of the inhabitants, this meeting is of opinion that a movement should be set on foot to provide suitable and healthy dwellings for these classes of the community." Sir James Power, Bart., moved, and Mr. Richard Martin seconded, another resolution:—"That the following do constitute a committee, with power to add to their number, to consider and report to an adjourned meeting the best means for carrying out the object expressed in the foregoing resolution, and that five members shall form a quorum:—Sir Arthur Guinness, Samuel F. Adair, Richard O. Armstrong, Wm. G. Brooke, Master Burke, Robert L. Dames, Dean Dickinson, David Drummond, Wm. Findlater, Robert O'B. Furlong, Major Geary, Dr. Grimshaw, Dr. Hayden, E. H. Kinahan, W. D. La Touche, Richard Martin, James W. Murland, Mark S. O'Shaughnessy, Alex. Parker, Jonathan Pim, Joseph T. Pim, Robert Reeves, C. Uniacke Townshend, John R. Wigham, E. Dwyer Gray, and G. F. Lombard." We understand that it is proposed to establish a company for the construction of healthy dwellings for the working population in Dublin; and we heartily congratulate the citizens of the Irish metropolis on this most important advance in sanitary matters.

THE HASTINGS WATER-SUPPLY.

THE following appears in the *Hastings and St. Leonard's Advertiser* of April 20:—

"The *Medical Times and Gazette* has returned to the assault upon the sanitary reputation of the borough. Like Dr. Johnson, it might be said that it is a good hater. Its latest attack upon the borough takes the shape of a report of a 'Special Commissioner,' whom it says it sent in all impartiality to inquire into the condition of the water-supply. Of this Commissioner it is said that he elected as the guide and companion of his visit to the reservoirs and water-sources a gentleman who is known to be one of the most prominent of the alarmists, and that although he was invited to an interview with the Sub-Water Committee he at once declined it. The members of the Committee inform us that some of the statements in the article are *positively untrue*, and that the *whole report is grossly exaggerated*, though we should not *care* to accuse the Commissioner of any desire to present anything *but the truth*. The Committee are still actively engaged in pursuing their inquiries; they have forwarded specimens of the water to Dr. Frankland for analysis, and on the presentation of that gentleman's report the public will have before them the whole state of things as it actually exists. Until then it would be well for people to suspend their judgment."

For the information of our readers we may say that the proprietor and editor of the print in question is a member of the Town Council, and the paper purports to be the fashionable intelligencer of Hastings and St. Leonard's. We do not take the trouble to rebut what he says as to the truth or untruth of our report. The position of this journal is far above that. If we have made any statement which is not borne out in every essential by facts, we are always ready to make any authoritative contradiction public. General accusations are altogether useless. Not only in this case has our identity been completely mistaken, but we never had any dealings with the Water Committee or any other committee whatever. We had a profound distrust of the authorities in the matter, and subsequent experience has only gone to confirm us in our opinion. The statement that the water has been submitted to Dr. Frankland for analysis would be entirely satisfactory if due care had been taken to authenticate its source, but this is important. Some little time ago a gentleman wrote to a local paper, speaking of the sparkling quality of the water then before him. On inquiry, however, it turned out that this particular glass of water had been carefully filtered. This is suggestive.

DR. TIDY ON BOARD-SCHOOLS AND MODEL LODGING-HOUSES.

IN his annual report on the sanitary condition of Islington, Dr. Meymott Tidy makes the following remarks on the various schemes that have been devised for improving the condition of the poorer classes, and especially with regard to Board-schools and model lodging-houses. He says, "It certainly appears to me that of late a retrograde step has been taken which it will be hard to retrace. All true sanitary work must aim at this—'the dispersion of men.' To forget this is to forget what sanitary work means. Congregation means degradation. A case of small-pox alone in a room is a bad enough disease to treat, but if you have fifty cases of small-pox nestled together in one ward, the disease in each case is likely to be intensified. The activity of the poison is the result of its congregation. The sound treatment of the disease and the best hopes of recovery are to be found in isolation. And what are men doing? Forgetful of this great truth, huge Board-schools are being erected, monster lodging-houses are starting up around us, whilst every church and chapel has its working man's institute. All this is in direct violation of the very first principles of sanitary science. To huddle together, under one roof, some hundreds of children, certainly seems an admirable provision for spreading disease. Some day a fearful outbreak of disease, consequent on this congregation, may occur, and rouse our Legislature to the fact of their mistake. At present the admirable ventilation of these schools and the open space around the majority of them, no doubt, is their safety; but, as a sanitarian, I doubt the propriety of adding to the already too large number of these gigantic assembly-rooms. It may be a brilliant idea to educate every child, but at least in doing so do not let us increase its chances of not needing that education as an adult. We are not justified in running the risk of spreading disease even in imparting knowledge. Our death-rate is big enough as it is. To spread knowledge is, without doubt, a bounden duty, but it is not necessary to build enormous schools for this purpose, and so to run the risk of allowing one child to scatter the seeds of fever and disease to 500. To see one monster school gradually displacing a score of little schools is, from a

sanitary point of view, a retrograde step, for which before long we may have to pay dearly." On the "model lodging-house" question Dr. Tidy says, "The system is a most pernicious one, not merely destructive of that honest pride every man should have in his home, but shattering entirely that sacred privacy which should belong to it. This may be called sentimentalism, but no matter. The dark winding staircases serve to hide gin and gossip from the light of the sun, and to shield sins worse than these of a night, for it is absurd to hide the fact that one of the great causes of immorality is congregation. Huddle men and women, boys and girls together, and the results are not very distant. Corruption is not unknown even in religious communities, but if there are not even moral bonds to hold and to bind, what can be the result? The top flat of a model lodging-house must indeed be a rare nursery for unhealthy children, for its height is a pretty certain prevention against the child getting much out-door exercise. And what when fever breaks out? All very well, perhaps, for a few years, when the buildings and the pipes are new, but what will these places be when they get old? The system is a bad one, and utterly opposed to sound sanitary science. I am quite aware that I shall be regarded as unpractical in my criticisms. I shall be told of the value of ground and the necessity of rooms for the poor; but to all this I reply, Is the model lodging-house the only thing to be suggested? Can no other remedy be found? It is true the homes of the poor are in many places bad; it is true great improvement schemes necessitate large blocks being pulled down;—but surely such a scheme as the building small cottages for workmen a short distance from London, and providing cheap trains for their carriage backwards and forwards to and from their work, would be infinitely preferable to so unwise a step as the erection of huge buildings, which are little else than a mass of stalls for human beings." Dr. Tidy certainly advances his views in a very forcible manner, and in Dr. Richardson's "City of Health," when it shall be built, they will be fully carried out—a consummation which we hope Dr. Tidy may live to see. We cannot, however, agree with him entirely on the evils of model lodging-houses. They have their disadvantages, doubtless, but we must remember that in providing for housing the poorer classes we have only a choice of evils, and it must be admitted at the least that the model lodging-houses are infinitely better than the miserable fever-dens they have supplanted. Dr. Tidy, in his sanitary zeal, forgets, or chooses to ignore, the necessity and exigencies of cities, and the fact that "the working classes," like some other classes, like to live near their work. Of course we agree with him as to the necessity for making, and keeping religiously, wide streets and open spaces round and among all our buildings.

LECTURES AT BROMPTON HOSPITAL.

The lectures, or clinical demonstrations, at Brompton Hospital will be recommenced for the summer session in May. It will be remembered that last year the lectures, by Drs. Pollock and Reginald Thompson, dealt with diseases of the lungs. This year the subject will be Cardiac Affections. Dr. Burney Yeo will give ten or a dozen lectures, or demonstrations, at 3 p.m. on the Wednesdays, on "Clinical Types of Heart Disease"; and Dr. Symes Thompson takes for his subject, "The Variations in Cardiac Rhythm, dependent on Obstruction in (1) the Systemic and (2) the Pulmonary Circulation." He begins his course on May 8, and will continue on every Monday, at 3 p.m. We may point out to practitioners and students that the in- and out-patient departments of the Brompton Hospital present a very large and fruitful field for observation in cardiac as well as pulmonary diseases, and that a few hours may be very profitably spent in taking advantage of the opportunities of study offered by these clinical lectures.

ENCOURAGEMENT TO PUBLIC HEALTH OFFICERS!

The post of Medical Officer of Health for the York Rural Sanitary District is now vacant under peculiar circumstances. Mr. Marshall, the late Medical Officer of Health for the district has received £200 per annum for discharging the duties pertaining to the office; but at the last meeting of the Rural Sanitary Authority it was decided, on the motion of Lord Wenlock, to reduce the salary to £100. Mr. Marshall refuses to submit to the reduction in his salary, on the ground that the work could not be efficiently performed for a less sum than that hitherto paid, and he has therefore resigned. It is proposed to fill up the vacancy at the next meeting of the Local Sanitary Board, to be held on the 6th prox. In all probability there will be plenty of candidates for the appointment, but we doubt whether the Sanitary Board is acting wisely in bidding for cheap labour. The district is a very large one, comprising fifty townships and an area of 70,000 acres. If the work is well done the Medical Officer of Health deserves the salary hitherto paid; but it is quite possible to discharge the duties in such a manner that £100 or even £50 per annum would be very handsome remuneration.

THE SUPPRESSION OF PRESCRIBING CHEMISTS.

The East London Branch of the Medical Defence Association are still actively engaged in the attempt to suppress unqualified medical practice in the East-end. Last week this branch recovered a penalty of £20 from a chemist named Bellaers, who carries on business in Stepney. A few months only have elapsed since Bellaers was prosecuted under the Apothecaries' Act and a similar amount was recovered.

PARLIAMENTARY.—THAMES WATER FOR DRINKING.

Mr. Sclater-Booth, replying to Sir Charles Dilke, said there is no intention of bringing in a Bill to prevent towns from pouring their sewage into the Thames above the point at which the supply of water to London for drinking purposes was drawn. The Thames Conservancy Act, passed some years ago, provides for the purification of that river, so far as sewage is concerned, by the agency of the Conservators, whose jurisdiction extends up to Cricklade. The Local Government Board have sanctioned the expenditure of large sums of money for the construction of works having for their object the purification of the river. Out of a dozen or fifteen towns between Cricklade and Hampton, the following of the more important cases may be specified:—At Oxford, upwards of £100,000 is being expended; at Abingdon, £20,000; at Reading, £150,000; at Eton, £25,000; at Windsor, £30,000.

Chromic Acid for Warts.—Three or four applications of this acid will cause the disappearance of warts, however hard, large, or dense these may be. The application gives rise to neither pain, suppuration, nor cicatrices, the sole inconvenience being the production of a dark brown colour.—*Union Méd.*, April 22.

Mercer's Hospital, Dublin.—Dr. George F. Duffey has been appointed Physician to this institution. The vacancy which has thus been filled up was caused so long ago as March, 1873, by the lamented death of Dr. Henry Eames. Dr. Duffey is a Doctor of Medicine of the University of Dublin, a Fellow of the King and Queen's College of Physicians, and Lecturer on Materia Medica in the Carmichael School of Medicine.

The Epsom College.—The twenty-second election of pensioners and foundation scholars in connexion with the Royal Medical Benevolent College will take place in the ensuing month, and the result will be declared on the 25th. There are vacancies for four pensioners, for which ten candidates offer themselves—viz., six ladies, whose ages range from sixty-two to seventy-one, and four gentlemen, from sixty to seventy-five years of age. Only *one* of these candidates appears to have subscribed to the funds of the College. There are eleven vacancies for scholars, and forty-one eager expectants, and in only six of these cases have the parents helped to support the College.

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

(*Continued from page 450.*)

The question now arises as to the place to be selected for the "binding of the book." A close consideration of the relations of each separate organ enables us to answer this question with facility. The continuity must be in all cases preserved exactly where the connexion between the organ and adjoining parts is the most important.

In all the large glandular organs, as in those which resemble glands (the spleen and lungs), the incision should be made from the outside, and we should take care of the spots where the vessels enter and leave, where the excretory ducts make their exit, and where the nerves reach the organ. These spots are called the hilus, porta, or root—the name varying with the organ. If, after the incision has been made, the organ is found to exhibit any important alteration, which may possibly be due to a primary vascular lesion, or be the result of some slow morbid process in the excretory ducts, we can, if the hilus has been preserved, either probe, dissect, inject, or use the blow-pipe from the more distant portions of the vessels or canals. If one of these methods is unsuccessful, another of them will be practicable.

The circumstances are different in the case of the brain and spinal cord. Here the only "binding" is the pia mater which supports the vessels. Transverse incisions must therefore be made on the spinal cord, leaving the pia mater attached on the anterior or posterior surface, according as the incision has been made from the one or the other aspect. In the brain the incisions should always be directed through the hemispheres from within to without, so that, notwithstanding the number of cuts which it may be necessary to make in the internal parts, it may always be practicable, at the close of the examination, to put the brain together again. My general rule is that each successive incision should be made across the middle of the existing cut surface, and that each new half should be again and again divided.

This procedure is naturally not practicable in the large ganglia. The optic thalamus and corpus striatum cannot be so divided that the pia mater may serve as a "binding" to them. The reticulated membrane which reaches them, the velum interpositum with its choroid plexus, comes in contact with only a small streak, the so-called stria, or lamina cornea, and must be stripped off before the dissection of the large ganglia is commenced. These latter I divide by fan-shaped radial incisions, whose common starting-point is the peduncle of the cerebrum. However great the number of these incisions may be—and it is necessary here to make numerous cuts,—the relationship of the parts may always be closely preserved in consequence of the connexion between each separate portion and the peduncle of the cerebrum.

Before I go on with my description, this appears to me to be the place to say a few more words with reference to the examination of the cerebral ventricles, in order to conclude in some degree my account of the method of dissecting the brain. My opinion is that the examination of the brain, after the membranes have been finished, should commence with the opening of the ventricles, since, apart from any tearing or squeezing caused by manipulation, the very weight of the organ increases the liability to laceration as time goes on, and the consequent risk of the escape of the fluids. The first incision, therefore, which I generally make into the brain, is carried directly into a lateral ventricle.

This incision, however, is not to be made in the way very common, even now, in examining the lateral ventricles for descriptive anatomy. The custom is, first to expose the so-called centrum semi-ovale of Vieussens, and then to create cerebral ventricles—perhaps by digging, almost in mining fashion, with the handle of the scalpel. We ought rather to bear in mind that between the middle portions (cellæ mediæ) of the lateral ventricles there is only the very thin septum lucidum to form a partition-wall, and that it is exactly under the raphe of the corpus callosum. If we therefore make a lateral incision, at a distance of one millimetre from this raphe, perpendicularly into the corpus callosum, we come directly into a cella media at a depth of two to three millimetres. This incision, which forms a right angle with the plane of the centrum semi-ovale, should be the first one made in the brain, unless a deviation is rendered necessary by any peculiar circumstances.

But this incision is naturally not sufficient to open the ventricle completely. In order to open the anterior and posterior cornua, or, at least, to demonstrate their condition (for the posterior cornua are more frequently completely or partially obliterated than open), it is necessary to make particular incisions anteriorly and posteriorly. These should not be made vertically, but horizontally, the anterior ones higher, the posterior ones lower, in the anterior and posterior lobes of the brain. Then only we obtain a view of the lateral ventricles in their whole extent, for the entrance, at least, to the descending cornu is also exposed by the incision towards the posterior cornu.

Having determined the contents of the lateral ventricles, the state of their walls and venous plexus, and the condition of the septum, the latter is taken hold of with the left hand close behind the foramen of Monro, the knife is pushed in front of the fingers through this aperture, and the corpus callosum cut through obliquely, upwards and forwards, and then all these parts (corpus callosum, septum lucidum, and fornix) are carefully detached from the velum interpositum and its choroid plexus. After these two latter have been exposed, we have to examine the state of their vessels and tissue. Then the handle of the scalpel is passed from the front, under the velum, which is thus detached from the pineal body and corpora quadrigemina, the state of these parts is determined, and the third ventricle now exposed. Lastly, with a long perpendicular incision, we divide the corpora quadrigemina and the cerebellum as far as the aqueduct of Sylvius and the fourth ventricle.

In the case of the brain, the pathologico-anatomical examination has to take a course peculiar to itself, and one which differs in many respects from that adopted in descriptive anatomy; and the above statement may suffice to demonstrate the most convenient and rapid method of dissecting with a view to a certain object. It at the same time most clearly shows that here also a free incision is to be preferred to any other mode of division, and, as I again repeat, the incision should be made by traction. It is of the greatest consequence that the incisions should be even and smooth in an organ like the brain, where the separate portions are of so great importance, and where one part is distinguished from another by peculiarity of function. How could we possibly demonstrate small foci of softening or induration upon an uneven, crushed, or torn surface? And these two are exactly those changes most frequently occurring in the brain. Therefore I say to my students, "Smooth, though wrong, incisions rather than correct and uneven ones!" It is true that with an incision made in a wrong direction we can scarcely tell what we are about, but an incision badly made is entirely worthless.

On account of the importance of the subject, I shall now describe in detail the examination of a second organ, in order to explain the peculiarity of my method and the reasons for adopting it.

What I refer to is the dissection of the heart; and although the general principles which I have laid down apply also to this organ, yet the details to be taken into account are so multifarious that numerous modifications of the general rules become requisite.

After we have opened the pericardium and determined its condition, and also ascertained the external appearance and the position of the heart, its size, shape, colour, consistence, the amount of blood contained in the superficial vessels, the amount of fat in the sub-pericardial tissue, etc., we have then to open the heart,—and we should do this *in situ*. In making this first opening, we have in view two objects: the determination of the quantity of blood in the separate cavities, and the examination of the capacity of the auriculo-ventricular orifices. Such an examination is, of course, indispensably necessary. The determination of the quantity and quality of the blood contained in the different parts of the heart is of decisive importance for ascertaining the kind of death. It is in the highest degree probable, even if not absolutely certain, that two of the most important kinds of death—that from asphyxia (*Erstickungstod*), and that from paralysis of the

(a) From the *Charité-Annalen*.

heart (*Herzschlag*, *Apoplexia cordis*)—occur in consequence of the over-filling, in the first case, of the right ventricle, in the second, of the left. We must, however, for clinical, and partly for forensic purposes, examine the capacity of the auriculo-ventricular orifices, especially of the one on the left side.

Another question which may be raised with reference to the auriculo-ventricular orifices can, unfortunately, only in certain cases be answered from sufficient evidence. I refer to the question with regard to their capacity for closing (*continentia*, less accurately though more frequently described as *sufficientia*). In an ordinary post-mortem examination no method can be adopted whereby the capacity for closing of the auriculo-ventricular valves can be thoroughly tested. We must content ourselves with supplying this deficiency by a minute examination of the valvular parts; and I will here remark that for this purpose it is absolutely requisite to preserve in their integrity all the parts belonging to the auriculo-ventricular valves, therefore also the chordæ tendineæ and the musculi papillares.

A consideration of the two objects to be kept in view in making the first opening in the heart teaches us that on both sides the base of the organ must be preserved,—for to the base on the right side the slips of the tricuspid valve are attached; on the left side those of the mitral; and, therefore, if we cut through the base, we injure at least one of the slips of these valves on each side. In addition to which it would be quite impossible to estimate the quantity of blood contained in each side, therefore also in each auricle and each ventricle, unless we open each of them separately. It therefore follows that for the first portion of the examination of the heart four separate incisions are required.

There can scarcely be any dispute as to the position and direction of these incisions. The mechanism of the heart allows no great choice with regard to the spots to be selected. Variations are possible only within certain limits. My method of dissecting the heart may be described under the following heads:—

1. The right border of the heart is the natural and recognised place of incision for examining the right ventricle. The incision must here begin close to the base, and must be carried at once deeply and forcibly into the interior of the ventricle; towards the apex the knife must be brought out without going too far down, for otherwise there is considerable risk of cutting the septum.

2. This incision is at the same time the guide for the three others; and the place for the incision for each separate portion of the heart is to be found in a plane taking the direction of the first incision.

3. The incision for the right auricle commences half-way between the places of entrance of the venæ cavæ, and ends close to the base.

4. The incision for the left auricle commences at the left superior pulmonary vein, and ends in like manner close to the base, which is usually indicated by the very prominent coronary vein. We should carefully avoid injuring the coronary vessels.

5. The incision through the left ventricle begins close below the base, and ends just short of the apex. It must be carried deeply and forcibly through the wall of the heart.

6. To bring the heart into the right position for the dissection, when the incisions for the right side are to be made, I extend firmly the forefinger of the left hand, and push it under the heart, and keep it against the base, so that the ventricular portion hangs down over the forefinger, which is as a fulcrum to it (*Hypomochlion*). Then I turn the heart on its axis towards the left until the right border presents anteriorly, and I press the thumb of the left hand just behind this border at the base. When the heart is thus fixed, I make, one after the other, both the incisions for the right side.

7. In dealing with the left side, I seize the apex of the heart, draw it upwards and to the left, and place the heart in the left hand in such a way that my fingers can encircle it. Then, with gentle pressure, I make the posterior wall to bulge out a little, and withdraw itself from the septum. Then I make in like manner, one after the other, the incisions for the left side.

So much for the method to be adopted in making the incisions. I have now described in a connected way all that is necessary; but in practice the determination of the quantity of blood contained in the chambers, and of the size of the auriculo-ventricular orifices, intervenes during these operations. That is to say, after making the incisions in the right side of the heart, I first remove the blood from the right auricle, and determine its quantity and quality; then I insert two fingers of the left hand (the index and middle fingers) from the auricle through the tricuspid opening into the ventricle, and endeavour to open this latter cavity. Then I remove the blood from the right ventricle, and determine it as before. I then do the same on the left side.

With reference to the examination of the auriculo-ventricular orifices, I may again remark that in this first stage nothing but their size should be ascertained. The examiner must therefore not be tempted to introduce his finger at present for the purpose of feeling whether, and to what extent, the valves are altered. This can be done later on, when the parts can not only be felt and handled, but are also fully exposed to view. Every attempt now made to ascertain, by feeling or rubbing, the condition of the borders of the valves is calculated to produce alterations or to remove any that may be present: any adherent coagula, for example, may be easily broken up or altogether detached. When the two fingers have been introduced, and the size of the orifice determined, they must be withdrawn as gently as possible. I shall here remark that each individual examiner must find out for himself by experience how far his fingers are a measure of the normal size of the orifices. For thin fingers, as in my own case, we may assume that the tricuspid orifice permits the introduction not merely of the index and middle fingers in apposition, but that we may separate the two fingers to such a distance from each other as to be able to introduce between them from the ventricle a third finger, *e.g.*, the index-finger of the right hand. With large and thick fingers this is not practicable. We have, moreover, on the left side to take into consideration the contracted condition of the heart. If the left ventricle is strongly contracted, the contraction will extend to the base of the heart, which is synonymous with the base of the orifice. We must then gently press the walls asunder, in order to overcome the contraction and the rigor mortis which is also very often present; this can be done without difficulty. It is only after the state of contraction has been overcome that we are able to form an opinion as to the actual size of the orifice.

These investigations terminate the first act in the examination of the heart. The removal of the heart is the first step of the second act. To do this we seize the organ by introducing the index-finger of the left hand into the left ventricle, and the thumb into the right, through the already existing incisions. We then raise up the apex, and with it the whole of the heart, and then, with three or four long, free, horizontal incisions, we divide the venæ cavæ and the pulmonary veins, the pulmonary artery and the aorta, all together, taking care that the incisions are not too close to the heart. When the heart has been removed, we first examine the cut openings of the aorta and pulmonary artery, determine the size of these vessels and the thickness of their walls, and remove from them any existing coagula.

Then we investigate the capacity for closure of the arterial orifices by pouring water into the aorta and pulmonary artery. Before we do this, we must be always certain that all coagula have been removed, not only from the vessels, but also from the orifices and the ventricles. For it is clear that coagula in any of these parts may so occlude an insufficient orifice as to give the impression of one that is sufficient. When the water is poured in, the heart must be held freely suspended in the air, for, if it is supported, a portion of the wall of the heart may be brought in contact with, and may stop up, the orifice we are examining. We must also avoid taking the heart in the hand and encircling it with the fingers, for we should in that way compress it, and prevent the escape of water through the orifice. The proper plan is to fix the heart by applying the points of the fingers of both hands either to the vessels to be examined, or externally near the base of the valves, in such a way that the plane of the orifice is exactly horizontal, and not drawn to any side. For in an oblique position of the orifice the weight on the separate portions of the valve becomes unequal, and fluid may escape through a valve which would otherwise close; and if the parts be dragged or stretched in a lateral direction, so that the circular lumen of the vessel is made to assume a crescentic form, the conditions of normal closure which involve the coming together of corresponding parts of the valve no longer exist. We must, therefore, always use both hands in order to suspend the heart properly, and the water must be poured in by a second person.

The best way to suspend the heart, when we are examining the aortic orifice, is to find a series of points where the tips of

the fingers can be closely applied round it, and these are to be found on the right and left auricles and pulmonary artery. To apply one's fingers simply to the edges of the opening in the aorta is always somewhat hazardous, for there is then only room to hold the vessel in two places; and if we limit ourselves to these, we are always apt to stretch the parts unequally. Moreover, in every case the aorta should be again divided at a distance of four or five centimetres above the orifice, by an incision parallel to the plane of the aperture. We are then able, while the water is being poured in, to observe the condition of the separate portions of the valve, and to ascertain positively the spots where the water escapes. I make, in conclusion, one remark—that sometimes the water sinks, and finally quite disappears, without passing away through the orifice. In this case it usually escapes through the coronary arteries, which are often divided when the left side of the heart is first opened. Particular attention must therefore be paid to this point.

In the pulmonary artery the majority of these difficulties do not exist; we can therefore, without any further preparation, almost always contrive to suspend the heart for the purpose of testing the pulmonary orifice by fixing between the fingers the edges of the opening into the vessel.

(*To be continued.*)

BAILLIE CORMACK.

The death is announced, in his twenty-eighth year, of Dr. J. R. Baillie Cormack, the eldest son of Sir John Rose Cormack, Physician to the Hertford Hospital in Paris. Amongst the younger race of the sons of Æsculapius who wait to fill up the foremost places as their elders fall, few have stood in greater promise than Baillie Cormack. He passed safely through the siege of Paris, and suffered, in common with the rest of the besieged, from the effects of privation; but he recovered from these, and last year was hale and active. During the memorable siege no soldier on either side of the combatants did more nobly his duty than this young surgeon, and assuredly none did nobler service. Wherever the famous "Ambulance Anglaise" went to pick up and treat the wounded, —on to the plain; into the fiery and maddened street,—wherever men were killing and dying, there was he assisting to help and to save. Some of the most formidable operations in surgery were performed by Dr. (now Sir) John Rose Cormack under shot and shell in the course of that terrible time; but wherever the father was giving his skilful aid, there also was the brave boy. There is a photograph taken of them as they laboured at this time, in which they are depicted with one of their patients and their attendants. This picture we have treasured as a touching incident of the Franco-German war. We shall treasure it now as a portion of brave biographical history. We have only time to give the briefest details of the career of Baillie Cormack. He was Resident Physician to the Hertford Hospital previous to his fatal illness, and until last October neither suspected himself nor was suspected of being afflicted with any malady. Then he began to show signs of pulmonary consumption, and, step by step, has been carried away by that, as yet, all but unconquerable destroyer. His last days were spent at Hyères, where he died on Friday, April 21. He met his death with the same serenity as he had met danger—with resigned composure, and with but one unselfish sorrow;—that his parent's natural hopes in his success were lost for ever. "And this! father, is the end of those castles in the air which you had raised for me; what I was to do for my profession, and become in it," was one of his later expressions as his life ebbed away. Alas! brave Baillie Cormack, we lay our simple garland on your too early tomb, knowing that this also is the end of the oldest as of the youngest in science and art. Yet even the castles in the air have their glory, and you yours. *Invidiam ferre, aut fortis, aut felix potest.*

B. W. R.

The numerous friends in England of Dr. Fordyce Barker, of New York, will hear with interest that he has been unanimously elected, both by the Medical Board and by the Board of Ladies, to fill the post formerly occupied by Dr. Marion Sims in the State Hospital for Women. The new appointment is a very popular one in New York, and is said to have been followed immediately by a large addition to the funds of the Hospital.

FROM ABROAD.

The Paris Dissecting Schools.

We have so often heard the London anatomical schools disadvantageously contrasted with that of Paris, in respect to the facility of obtaining subjects for dissection and for practising operations, that we perused with some surprise a series of papers contributed to recent numbers of the *Progrès Médical* by a correspondent signing himself "L. H. F." He has, at all events, had the opportunity of being informed upon the subject upon which he treats, having taught anatomy as prosector during ten years. There are at Paris two schools for dissection, having in some measure antagonistic interests—the one that of the École Pratique, attached to the Faculty of Medicine; and that of Clamart, dependent upon the hospital administration branch of the Assistance Publique. The writer complains that when the student arrives in Paris he finds himself utterly without advice or direction as to what he has to do, and that it thus often happens that, in place of commencing his dissections in November, he does not do so until January or February. In fact, he has had no advice given him as to what he must do, and he gropes his way as best he can. The dissecting-rooms at the École Pratique, when at last he reaches them, are in a deplorable state of inefficiency, for even after some improvements made by Prof. Wurtz they are still overcrowded, and defective in the supply of water and other conveniences. They are lofty enough, but so badly roofed that they are exposed to a freezing cold in winter, and a scorching heat in summer. The subjects become frozen, and, as the rooms are only heated by stoves, it constantly occurred during 1874-75 that when it was freezing out-of-doors the temperature within did not exceed 8° C. (46° F.) three or four yards from the stove. Dissecting could only be carried on by the persevering, the bulk of the students taking themselves off for a comfortable read or smoke elsewhere. The students are divided into series of five for each table, the beginner and the experienced dissector being placed pell-mell together. For each table of five students only two subjects are provided each winter, several of these being very poor ones, and badly injected, so that four subjects have to supply the wants of the five students for the two years' dissection required. In fact, the majority of the students never have an opportunity of dissecting a neck, and still fewer a male perineum. During the winter somewhat less than 300 entire bodies are provided, and less than 300 which have been more or less mutilated at autopsies. Of the 300 entire bodies, fifty or sixty are required for the courses of lectures of the professors or of the seven prosectors or demonstrators; while there are, or ought to be, 600 students registered for dissection,—so that there really are but 250 subjects to divide among the 600 during the five winter months. Of the 300 opened bodies, about 200 are required for the practical examinations, and to these are to be added others for the lectures on operative surgery and to make up deficiencies in the series of entire bodies. At Clamart only 300 bodies are received, but then there are only 300 students; and a prosector can easily furnish what is wanted for twenty private pupils, while at the Ecole Pratique they cannot get more than three each during the winter. As ten pupils are wanted to gain 2000 fr., if they manage to get them there it must be chiefly due to lectures and oral demonstrations. At the École Pratique a prosector has the direction of at least sixty, and at most ninety students. The prosectors have no theatres or other appliances at their disposal, and the students have to crowd round them the best way they can. Six complete courses of demonstrations have to be given, while until quite lately even such indispensable instruments as saws and hammers have had to be bought or borrowed by the lecturers. No books, plates, or preparations are at hand to aid in illustration; and everything is conducted in the most parsimonious manner. One can hardly feel surprised that the writer refers with some bitterness to the sums lavished on the new laboratories, only available by a few select pupils, while the appliances for teaching the anatomy so essential in the formation of the future practitioner are so inadequately provided. But even were these appliances in a satisfactory condition, the prosectors are so wretchedly paid that they are compelled to chiefly depend upon private pupils for remuneration. As they possess little or

no authority over the students, also, most of the prosectors do not volunteer their services, contenting themselves with replying to such questions as may be asked them, and with delivering the obligatory lectures. And more than this can hardly be expected of men who are obliged to go through from two to five *concours* in order to reach the highest position; and then, when thirty years or more of age, without practice or other appointments, find themselves in the receipt of only 1600 frs. They must be far better paid than this, or must continue to give their chief attention to private pupils. It is the general opinion that the number of bodies should be at least tripled, and that the students should be required to dissect during three winters—two at the commencement of their studies, and one on the eve of their final examinations. Police regulations and all-powerful routine prevent the transport of bodies, which could be easily obtained from the prisons and asylums within a radius of thirty leagues round Paris; and the repeated efforts of Prof. Wurtz have been able to effect but little improvement. It is to be feared that many years will yet pass before these routine rules will be relaxed; and the writer chiefly relies at present upon the more prompt injection of bodies, and a better manner of performing this, to economise many bodies that are now found well-nigh useless. He particularly recommends phenicated glycerine as an injection which preserves the body in a state fit for dissection for weeks, or even months. But for details respecting this, as well as for various other recommendations for economising subjects, we must refer to the articles themselves.

The Urinary Organs in Infants.

Dr. Englisch, in a paper read at the Wiener Doctoren Collegium (*Wien. Med. Zeitung*, March 28), observes that, although the results of the examination of the urine in new-born infants have frequently been published of late, there have been given but few accounts of the anatomical circumstances upon which a changed condition of this may be dependent. Having made many examinations of this kind, he believes that he can furnish some interesting information upon the subject.

First, the question arises, Is there any absolute necessity that a fœtus in utero should secrete urine? A series of preparations exhibiting defective conditions of the fœtal urogenital system have convinced the author that a fœtus may attain the age of seven or eight months without ever producing a drop of urine. The kidneys may be wanting or rudimentary, the ureters obliterated, the bladder undeveloped, etc., and yet the fœtus may attain the above age. So, too, in some forty cases there has been found atresia of the urethra or absence or defects of the ureters, the fœtus reaching the eighth or ninth month without passing a drop of urine.

Occupied for some years past in examining into the causes of obstacles to the passage of urine at different periods of life, Dr. Englisch has arrived at the conclusion that diseases of the kidney are of much greater frequency in children than is generally believed. As to the occurrence of albumen, he has found that when great obstruction exists to the discharge of urine, the kidney passes into a state of hydronephrosis; but when this exists in a less degree, albumen appears in the urine. The obstruction may take its rise in the valvular folds situated at the upper part of the ureter or at the lower part of this. Nor is it a matter of indifference to the individual whether a ureter pursues a longer course than usual within the walls of the bladder, for it is in the kidney of that side that hydronephrosis occurs. In five cases, atrophy of the kidney has resulted from obstruction caused by the curving of the mucous membrane of the orifice of the urethra into a diverticulum. The secretion and discharge of the urine have also been greatly interfered with by the hypertrophy and increased muscular contraction of the walls of the bladder. In his numerous examinations of the immature fœtus the author has found at this period the walls of the ureters are in the closest contact, so that even by the aid of a microscope no interval could be detected. At a later period a slit is observed, which becomes first elliptical and then rounded in form; but stenosis or partial adhesion of the walls of the ureter are also observed. Such adhesions are also found at the orifice of the ureter, at the neck of the bladder, and in the prostatic portion of the urethra, etc. In face of so many obstructions which may be found in new-born children to the flow of the urine, and which may give rise to dilatation or disappearance of the kidney, dilatation of the ureter, hypertrophy of the bladder, etc., it is not surprising that albumen should be found in the urine so frequently, as well as other indications of a diseased condition of the pelvis of the kidney or of the substance of the organ. In order to obtain exact information concerning these various conditions, it is very desirable that the cases of new-born children in which altered appearances of the urine are observed should be submitted to careful post-mortem inspection. Many cases of uræmia will then find their explanation, as will those of pyelitis occurring in children five or six years old, who since their birth have never exhibited symptoms of acute cystitis or nephritis.

REVIEWS.

A Short History of Natural Science and of the Progress of Discovery from the Time of the Greeks to the Present Day. For the use of Schools and Young Persons. By Arabella B. Buckley. London: John Murray, Albemarle-street. 1876.

If our sons and daughters do not grow up "well informed," it will not be the fault of those who are now working and writing for their information and instruction. Amongst the many excellent books for the young, perhaps the most remarkable in our country are the "short histories"; and it is not too much to say that for bringing out such valuable epitomes some of our great publishers deserve the cordial thanks of the educated public for their enterprise and the assistance they have thus given to the cause of education. Not a few of the histories now in the hands of school-boys and school-girls are really models as regards accuracy and literary style. Some of them, written by masters distinguished not less for their literary skill and the depth of their learning than for the care with which they have executed the very difficult task of condensation, and for the taste and judgment displayed in deciding what should be included and what omitted, ought to be to the young almost as interesting as a well-written novel; while to more mature readers they will certainly be found thoughtful and suggestive. To this class of works our authoress has added one which we think will command many readers. A "History of Natural Science" was really much required. As "secretary to the late Sir Charles Lyell" the writer enjoyed great advantages, and it would, indeed, be difficult to suggest a way in which she could have better fitted herself for efficiently executing her task. The work begins with a brief account of the Greek Philosophy from the time of Thales, and attention is drawn to the evidence of the learning and bravery of the Greeks as contrasted with their ignorance of "natural knowledge."

"An English boy, if he could be carried back to those days, would find that the young Greeks could read, write, draw, and argue as well as himself, and probably that they could leap, wrestle, and run far better than himself or any of his schoolfellows." . . . "But if he spoke of the sun as a globe of light, they would turn away from him in horror as a wicked unbeliever in the gods, for who among the Grecks did not know that the sun was the god Apollo, who drove his chariot every day across the sky from east to west?"

In the four next chapters an account is given of the astronomical views and discoveries of Aristarchus, Euclid, and Archimedes, the study of the human body by Erasistratus and Herophilus; and this, the first part of the work "on the science of the Greeks," concludes with a description of the Ptolemaic system and the discoveries by Galen—a "great man of science, and one of the most celebrated physicians of antiquity"—of nerves of sensation and of motion and of the presence of blood in the veins.

Part II. treats of the "Science of the Middle or Dark Ages," and comprises the period from A.D. 700 to A.D. 1500. "For several hundred years Europe was too much engaged in wars and disputes to pay any attention to learning or science."

In Part III. "The Rise and Progress of Modern Science" are treated of, and, as the reader would suppose, this comprises the greater portion of the work. It contains more than 350 pages, and chapters will be found in which an account of the most important discoveries of modern science are very clearly and carefully described. Chapter xxxiii. is devoted to the history of spectrum analysis; chapter xxxiv. to theories of heat, including Joule's experiments, and "proof of the indestructibility of force and conservation of energy." In the next chapter we find much information concerning electricity and magnetism, and a very clear account of the invention, construction, and action of the electric telegraph

is given. Next follows an account of Davy's discovery of the influence of nitrous oxide in producing insensibility, of the safety-lamp, and of the effect of electricity upon chemical affinity. The great additions to our knowledge by Faraday, Dalton, and Liebig are also recounted. The book concludes with four chapters on the organic sciences; Goethe, Humboldt, Lamarck, Cuvier, G. St. Hilaire, von Baer—all figure in chapter xxxviii.; and then comes an account of the progress made in the science of geology, and of the labours of Sir Charles Lyell. The story of the flint implements, and of the Swiss lake dwellings, finds a place, and the bearing of the facts discovered upon the question of the "antiquity of man" is alluded to: "and you must remember the fact, that man is very ancient, as one of the greatest discoveries of the nineteenth century."

The hypothesis of natural selection is explained, and after speaking of the "foolish prejudices against it," the authoress concludes with some remarks upon the "tendency of the science of our day as compared with that of earlier centuries." Herbert Spencer is "one of our greatest living thinkers." Of "evolution" the authoress is evidently an enthusiastic admirer. That she has written in the interests of a particular school of thought may, perhaps, be alleged by some as an objection to the book, but thoughtful readers of mature age must remember that this work has been written for the use of young persons *of the present time*, who, it is hoped, will be encouraged to labour in "this spirit of seeking the truth for itself," though they may rejoice ever so boisterously that "that blind worship of authority, which is the greatest enemy to true knowledge," has been overcome. The work contains some excellent wood engravings, and a coloured plate of the spectra. There is a chronological table of the "Rise of Modern Science," and a good index. The meaning and derivation of many scientific terms are given, and although we may not agree in some of the views of the talented authoress, we may assure our readers that they will find a vast amount of information in her book, conveyed in a very clear, pleasant, and unpretending manner.

Morocco and the Moors: being an Account of Travels, with a General Description of the Country and its People. By Arthur Leared, M.D. Oxon., F.R.C.P., Fellow of the Royal Geographical Society, etc. With illustrations. London: Sampson Low and Co. 1876.

Dr. Leared, who is well known to be one of those who travel with their eyes open, and who has done much to help to make us acquainted with Iceland, has now given us a very pleasant and instructive book of travel and adventure in a land as yet little explored by the ubiquitous English wanderer. He visited Tangier, Casa Bianca, Azamon, Mazagan, Saffi, and Mogador, on the coast; and penetrated the interior of the country to the city of Morocco itself. And to all the difficulties attendant on travelling in a country almost unopened to western civilisation, there was added in the city of Morocco the excitement of great danger, as while there he and his party narrowly escaped with their lives from an attempt to poison them. This attempt, and the state of the city, cut short Dr. Leared's stay there, and prevented his having a much hoped for and expected introduction to the Sultan; but he gives a very interesting account of the place, though we cannot say that he proves it to be very attractive, in its present condition and government at least. To what he was himself able to observe and hear Dr. Leared has added a large amount of information, from the most authentic published accounts, on the government, law, and military power, the education, religion, superstitions, and the healing art, the agriculture, domestic animals, manufactures, money, natural history, and sport of the country; and he gives in the appendices to his work some valuable information on the climate of Tangier and of Mogador. Both places would appear to be especially well suited, by their climate, to become chosen places of winter residence for the phthisical. In Mogador, in particular, phthisis seems to be of extremely rare occurrence; but as yet it can hardly be recommended as a place for an invalid, owing to the want of good dwellings, the absence of anything like good and efficient sanitary arrangements, and the badness of the food. Dr. Leared was called upon largely to exercise his well-known skill as a physician; and he gives a very considerable amount of information on the "healing art" as practised in Morocco, and on the drugs in use among the Moors. His work does him no little credit as an accomplished observer and traveller; and will be found a very useful and safe guide to the "Wanderers" who may be tempted to visit Morocco, and very interesting to those who can only indulge in the pleasure of becoming acquainted with it by means of books.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, April 5.

W. O. Priestley, M.D., F.R.C.P., President, in the Chair.

The Resignation of the Examiners in Midwifery at the Royal College of Surgeons.

Before entering upon the general business of the evening, Dr. Murray wished to bring forward a resolution—"That the Obstetrical Society of London present a vote of thanks to Dr. Arthur Farre, Dr. Barnes, and Dr. Priestley, for having resigned their posts as Examiners in Midwifery at the Royal College of Surgeons in the interests of the science and practice of obstetrics." He had little to add on the subject, as the matter had been prominently before the profession for some little time, but he did think that a permanent record should be made of the steps which these gentlemen had taken. He could not but admire the unhesitating resignation of Dr. Barnes, and although Dr. Arthur Farre, being their honorary President, was hardly expected to take an active part in this matter, he entered into it with much feeling. Dr. Priestley, who doubtless was placed in a position which required some amount of reflection, could come to no other determination. Dr. Murray considered the College authorities very unfair in trying to put on these gentlemen so unjust and unprecedented a task, which to their honour and credit they have declined to perform. The Licence in Midwifery was considered to be an additional qualification, but never intended to stand alone, and, so to speak, place partially educated persons on a level with those who had or could obtain a complete and perfect medical education. He hoped that the example now set would deter any member of the profession from accepting the posts which have been vacated.

Mr. Worship (of Sevenoaks) seconded the resolution. He thought the thanks of the profession were eminently due to these gentlemen for their energetic protest against the course proposed by the College, which, if carried out, would enable a number of half-educated men to practise midwifery nominally, without restricting them from practising other branches of the profession, and would thus place the general practitioner in a most unfair position. He deeply regretted that such a scheme should have been proposed during the presidency of Sir James Paget, who had always hitherto striven to elevate the education of medical men. He considered this a very retrograde movement.

The resolution was carried by universal acclamation.

Dr. Barnes regard the course he had taken a plain duty. Looking neither to the right hand nor to the left, but solely to the future, he had regarded the course proposed by the College as detrimental to the interests of the profession, and injurious to the public. It was a matter of intense gratification to him to see that his conduct was approved by his brother practitioners, and he expressed his thanks to the Society for the way in which they had received him. One great grievance was that obstetricians had no representative voice at the Colleges of Surgeons or Physicians, and their only mode of expressing an opinion was by doing so outside through the Society. He trusted that no one would be induced to take the examinerships. They had only to act steadfastly together, and the College must give in.

The President hoped the Society would excuse him if, in the present position of the question, he expressed but very briefly his thanks for the resolution which had been carried by acclamation. He might say that he had entire sympathy with the resolution which had been drawn up by the Council, and forwarded to the College of Surgeons, as a protest against admitting partially qualified persons to the Medical Registrar; but he had been placed, as Dr. Murray had pointed out, in a double difficulty—being anxious on the one hand, as President of the Obstetrical Society, to give effect to the resolutions passed by the Council; and on the other hand, as an old examiner

of the College of Surgeons, being reluctant to behave discourteously to the College or to obstruct its authorities in attempting to render obedience to the law as it had been expounded to them. On full consideration, however, he and Dr. Farre had come to the conclusion that the College proposed to impose a duty upon them as examiners under circumstances which had never occurred before, and they had consequently asked to be relieved of their functions at once. He believed he might be permitted to say for Dr. Farre, as well as for himself, that it was a great gratification to know that their conduct in this matter met with the approval of the Fellows of the Society and of the medical profession generally.

Remarkable Development of an Infant.

Dr. D. C. MacCallum (of Montreal) communicated through Dr. Wiltshire the particulars of a case occurring in the practice of Dr. Cameron. At birth the child weighed fourteen pounds. When twelve months old she weighed sixty-nine pounds, her height was thirty-five inches and a quarter, and she was thirty inches round the chest. She was not weaned until two years old, when she commenced to walk. At seventeen months she weighed ninety-eight pounds.

Case of Intra-Uterine Peritonitis.

Dr. MacCallum also communicated a case of complete obstruction of the bowel from the above cause. Distension of the fœtal abdomen retarded delivery. The anal aperture was normal, but nothing passed. Stercoraceous vomiting ensued, and death resulted on the fifth day. At the autopsy, numerous thick and strong extensive adhesions were found matting the intestines together. About six inches from the ileo-cæcal valve a tough band was found stretching across the bowel, forming a practically impervious stricture, and almost amputating the intestine. There was no history of syphilis.

Dr. Hayes had never met with intra-uterine peritonitis of the fœtus as the result of congenital syphilis, nor had he seen peritonitis after birth occur in infants affected with this disease.

Dr. Barnes stated that he had seen general peritonitis in infants affected with syphilis, but whether it was due to this latter he could not say distinctly.

Placenta with Unusual Arrangement of Vessels.

Dr. A. E. Aust-Lawrence (of Clifton) exhibited a placenta where the umbilical cord, instead of passing to the centre before it distributed its vessels, was attached to the amnion for three inches previous to arriving at the margin of the placenta. There was a fibrinous deposit under the amnion, which, together with an old blood-clot, had produced sufficient adhesion between the placenta and uterus to necessitate manual removal. There had been much abdominal pain during the last three months of pregnancy.

The President suggested that the specimen should be added to the Museum.

Specimen of Extra-Uterine Fœtation.

Mr. E. Child exhibited the sac removed post-mortem from a patient who, whilst hanging out clothes, had been seized with colic, and had peritonitis following. Death eventually occurred. The fœtus, fully formed, about three inches in length, was discovered at the autopsy lying in a sac formed apparently by the left ovary, and the intestines matted together above, and Douglas's pouch below. The patient had previously suffered from a severe attack of colic, but, though married, had no suspicion of being pregnant. Shortly before her death, hæmorrhage occurred, and she passed a mass per rectum, which was apparently the lining of the cyst.

The President inquired whether any decidual membrane was present in the uterine cavity.

Dr. Aveling suggested that it was probably the decidual membrane which had been passed before death.

Dr. Edis stated that he had what he believed to be two cases of extra-uterine fœtation under observation just now. In both, violent pains in the abdomen, described as colic, were prominent symptoms. The catamenia were regular as to time, but less than usual. The uterus was pushed over to one side, and there was a progressive development of the growth, presumed to be extra-uterine fœtation. He thought the case related by Mr. Child one of much interest, and that it would be well if practitioners would place on record interesting cases of this nature, that might serve as landmarks for future guidance.

Dr. Playfair inquired what treatment was proposed in these cases.

Dr. Edis replied that the cases had only recently come under observation, and were attending as out-patients. One refused to remain in the hospital, and the other had gone off to the country. He had since heard that this latter had had a severe attack of "inflammation of the bowels," her life being despaired of, though she was still living.

Cancer of Ovary extending to Uterus and Rectum.

Dr. Oswald exhibited a tumour removed post-mortem from a patient aged forty-two, mother of six children. The growth had been observed some ten months; it had rapidly increased, causing much pain, and had been diagnosed during life as malignant. It appeared to proceed from the right ovary. Under the microscope numerous cancer-cells were detected.

The Mechanical Action of Pessaries.

Dr. John Williams read a paper on this subject, in which he discountenanced the employment of Hodge's pessaries in cases of retroflexion of the uterus, advocating a form similar to that recommended by Schultze—viz., a ring bent into the form of a figure of 8, one end being much smaller than the other.

Dr. Braxton Hicks thought that Hodge's pessary was the most practical one existing. Even where the uterus was very tender and sensitive to the touch, a Hodge might still be employed, the fundus getting out of the way, and allowing the intestines to fall down behind in cases of retroflexion, so that the instrument was tolerated. A Hodge was easily applied, rectified, and altered. That suggested by Dr. Williams was less easy of application, the difficulty being in getting the cervix into the opening of the ring.

Dr. Graily Hewitt entirely concurred in what Dr. Williams stated as to the importance of the dragging action of the pessary on the cervix uteri in regard to its efficiency in helping to restore the uterus to its proper shape. The cervix was thereby made in some degree a fixed point, and thus an exceedingly necessary object was secured. In his own practice he had obtained very great benefit from attention to this mechanical axiom. In severe and long-standing cases of retroflexion the posterior portion of the pessary must be made long enough to actually touch and carry the fundus upwards to a sufficient extent. The repeated use of the sound was in such cases necessary. In cases of anteflexion, he wished to state that for some time past he had been accustomed to place the cradle-pessary, not with the small ring backwards, as represented in the third edition of his work on Diseases of Women, but with the large ring backwards.

Dr. Playfair considered pessaries of great value; in fact, no one could treat cases of flexion satisfactorily without them; but unless careful attention were directed to the concomitant conditions—congestion, inflammation, hyperplasia, etc.,—we should not succeed. It was easy to run into extremes by neglecting or making light of conditions, and relying simply on exclusive attention to mechanical assistance. He regarded Hodge's pessary as a most admirable instrument.

Dr. Bantock agreed with Dr. Williams that a Hodge was of very little use in retroflexion. It acted by dragging back the cervix uteri, and so doubling up the uterus. A Hodge was only of use in retroversion. An intra-uterine stem must first be passed to relieve the flexion.

Dr. Aveling considered the treatment of flexions and versions should be different. A Hodge was valuable in retroversion, but not in retroflexion until an intra-uterine stem had been inserted. He did not believe that the pessary doubled up the uterus, the fundus not being fixed. In old cases of confirmed rigid flexion a Hodge was of no use.

Dr. Hayes differed from Dr. Williams in regard to the value of Hodge's pessary in the treatment of retroflexion, and as to its mode of action. He thought the instrument most useful. If the normal position could not be maintained, it frequently relieved the backache, sense of bearing down, and dragging pain in the left ovarian region. He regarded the action of the pessary as that of a shifting lever. Where the posterior *cul-de-sac* of the vagina was short, little benefit was derived from a Hodge, as the upper end was prevented from pressing against the fundus.

Dr. Roper remarked that in cases of retroversion the cervix and body of the uterus constituted one continuous rigid organ. There was attenuation of tissue between the fundus and cervix, as in cases of flexion, where a kind of hinge or joint was formed at the angle of flexion, and by drawing the cervix down the flexion was only increased. The posterior limb of the Hodge needed to be long, so as to press up into the

posterior fornix of the vagina and impinge on the body of the uterus above the point of flexion.

Dr. Godson believed that many cases of retroflexion were the result of congestion supervening on simple retroversion, and that if the congestion be treated by rest, depletion, etc., the flexion may be converted into version, and thus become amenable to mechanical treatment; whereas if pessaries be employed while the flexion exists, they are not only useless in remedying the displacement, but are mischievous as increasing the congestion.

Dr. Galabin believed the old views of the action of Hodge's pessary to be correct, the pessary itself forming a lever, to which the power was applied through the anterior vaginal wall. His own experience was opposed to the statement that the limb of the pessary never came into close contact with the fundus. An examination per rectum showed it to be otherwise. By increasing the curve of the pessary he had often found it effectual in restoring the fundus when a slight curve had proved insufficient—not only in retroversion, but also in retroflexion.

Dr. Murray remarked that he had used Hodge's pessary with considerable advantage in cases of retroflexion, and cited a case in which he had brought the retroflexed uterus to a state of retroversion; and from the continued wearing of the pessary the uterus had become anteverted. For this condition he had used the cradle-pessary with success. He considered it quite necessary to use a pessary where congestion existed owing to the displacement.

Dr. Graily Hewitt stated that he had often seen a case of retroflexion converted into one of anteflexion after the employment of a Hodge's pessary.

Dr. Barnes observed that if we used a Hodge with full understanding of its action we should never be disappointed. It was extremely important to replace the uterus before inserting the pessary. If the posterior limb of the Hodge were well shaped, we had a double leverage, and the fundus was pressed up by it.

Dr. Rogers regarded Hodge's pessary as a useful and valuable instrument. In cases of flexion it was often necessary to employ intra-uterine stems as well.

Dr. Heywood Smith stated that he was in the habit of bending the upper portion of the Hodge to nearly a right angle, and the lower portion to a similar extent, so as to avoid pressure on the urethra. With regard to obstinate flexions, and more particularly in cases of anteflexion, he considered that no treatment was so efficacious as that by intra-uterine stems; but it was necessary to use such with extreme caution, and after proper depletion of the uterus by leeches or puncturation, at the same time keeping the patient in bed.

Dr. Williams, in reply, said two objections had been raised as to the principle of action of Hodge's pessaries. The first, that the pessary pressed against the fundus uteri: This no doubt was the case in many instances; but in most of these the uterus was not made to assume its usual position in the pelvis, but remained retroverted, or more or less retroflexed. The other objection made—that a Hodge did not maintain the uterus in position when the posterior wall of the vagina was unusually short—was quite true, and the explanation of it evident. It was not because the instrument could not press against the fundus uteri. The anterior vaginal wall was also short, and inserted into the cervix uteri at a lower level than the posterior, and any attempt at dragging the cervix uteri backwards rendered the anterior wall of the vagina tense, thus preventing the object in view.

MEDICAL SOCIETY OF LONDON.

Monday, April 10.

William Adams, F.R.C.S., President, in the Chair.

Two Cases of Tumour of the Face.

Mr. Francis Mason exhibited a man, aged sixty-two, on whom he had operated three times for a myeloid tumour of the septum nasi, with a good result. In the first operation, which took place on September 9, 1874, the growth was removed through the anterior nares with the ordinary polypus forceps. The nostril, however, soon became again obstructed, and therefore, on September 26, Mr. Mason made an incision down the side of the nostril, and, raising the ala, extirpated the growth. The patient went on well until Christmas, when the tumour was again manifest, being larger than ever. On January 6, 1875, Mr. Mason operated for the third time: by carrying the knife in the line of the cicatrix left from the previous operation, and dividing the upper lip in the median line, he succeeded in entirely removing the growth from the septum of the nose; and as the tumour had invaded the upper lip, a portion of the inner surface of this was excised. The patient had remained quite well ever since—a period of fifteen months. Mr. Mason then referred to a case (with photographs of the patient) of melanotic tumour on the right cheek of a man aged sixty-four, which was removed on October 23, 1872, at St. Thomas's Hospital. There were numerous sub-maxillary glands involved, to remove which a fruitless attempt was made. Notwithstanding this, the man made a rapid recovery, and Mr. Mason had last month received information that the patient had remained perfectly well up to the present time, and that he intended coming up to town on Good Friday, in order that he might satisfy Mr. Mason. Mr. Mason brought these cases before the Society with the view of indicating the expediency of operating on tumours which, from their general appearance and microscopic character, appear to be beyond surgical aid.

Two Cases of Pelvic Hæmatocele.

Mr. J. Knowsley Thornton gave a brief account of two unusually severe cases of pelvic hæmatocele which had been under his care at the same time in the Samaritan Free Hospital. In both cases the effusion of blood gave rise to a large abdominal tumour, and in both the patients were very ill and in danger before any surgical measures were adopted. The one case was treated by successive punctures from the vagina immediately behind the cervix, the opening eventually being kept patent to allow drainage; the other was treated by free incision in the same place. Each case was for about five weeks under treatment, and each had relapses due to the imperfect escape of the discharge from inefficiency of the measures taken to establish free drainage. Both ultimately recovered and continue well, very little trace of the effusion or attendant cellulitis remaining. Mr. Thornton then made some remarks on the special points of interest in the two cases. He advocated free incision and drainage by the vagina in all cases where surgical treatment became necessary, in preference to simple puncture, and did not approve of injections unless there was evidence that the collection had become thoroughly encysted and putrid. He would not advocate a too hasty use of surgical means, but thought that in cases where the effusion was very large it was better to incise and drain, even though no serious symptoms were present, as the treatment was thus rendered much shorter, and there were many risks in waiting. He quoted from the works of Sir James Simpson and Mr. Spencer Wells in support of the advisability of free opening and drainage in many cases. He approved of the use of the hollow tangle-tent in preference to other forms of drainage-tube, and protested strongly against puncture per rectum as dangerous from the risk of admitting fæcal gases or liquids through the opening, and as also objectionable because if a fistula became established into the bowel, it was out of the reach of the surgeon for further treatment. He also referred to the opinion of Dr. Meadows, that the blood was fetid before puncture, and pointed out possible sources of fallacy, from Dr. Meadows' published cases. In both of the operations he had mentioned the blood effused had been found in the first instance odourless. In conclusion, he acknowledged imperfections in the treatment of his cases, due to the rarity of views and deficiency of good guides in published cases, and trusted that the careful record of two cases successfully treated would prove useful.

A discussion followed, in which Dr. Rogers, Dr. Routh, and Dr. Godson took part.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 14.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

The Development of Spindle-Cells in "Nested Sarcomas."

Dr. Gowers read a paper on the above subject, the object of which was to describe the development of spindle-cells as observed in a certain variety of sarcoma. The tumours referred to consisted of spindle-cells, with a few round cells, and

had this characteristic: that the spindle-cells were in part arranged concentrically in nests resembling very closely the nests of epithelioma. Three examples of the tumour which had been met with were all attached to the inner surface of the cranial dura mater. Their naked-eye and microscopic appearances are described. In these tumours the origin of spindle-cells could readily be traced and described. They were developed from round cells by a process of vacuolation similar to that described by Dr. Creighton in the cells of cancer. The origin of the nests is traced to a modification of this process of vacuolation. The paper concludes with some remarks on the nature of the process, as indicated by its character.

The PRESIDENT said there was a reference to his work on the subject; but he had been so long devoted to studies relating to a different department of surgery, that it seemed almost like the memory of a dream.

Mr. KNOWSLEY THORNTON had seen much in the peritoneum to confirm Dr. Gowers' views. In round-celled sarcomata he was more and more convinced that the appearances were due in part to vacuolation. Staining brought out the process more perfectly. The origin of new cells in many cases was traceable to the granular processes from the stomata.

Dr. THIN was surprised that the doctrine of lymph-canaliculi should be here accepted without a doubt. Ranvier even denied the existence of stomata; he fancied lymph-cells got into old and broken ones.

Mr. HULKE received with some hesitation the view that leucocytes had such facilities for wandering. Were we to examine a vaginal discharge we should find in it large cells, containing in them bodies like leucocytes; were they really leucocytes? Take, again, pus in the vitreous: were that to consist of wandering cells from the choroid we could hardly understand it; but in the vitreous itself were bodies ready enough to take on the purulent character.

LICHEN RUBER.

Dr. EVANS exhibited a patient the subject of lichen ruber.

The PRESIDENT remarked, with regard to another discussion, that in this case the eruption was fairly symmetrical.

Dr. THIN had seen two cases in Vienna—in one each papule had a crown of epidermal scales, so that when seen in groups the malady seemed something like psoriasis; in the other the skin was very hard, and would not readily heal.

Dr. F. TAYLOR had seen some little time ago two cases something like this. Pitch ointment seemed to improve the former of these very greatly.

OBITUARY.

CAMPBELL DE MORGAN, F.R.S.

BY the death of Mr. Campbell de Morgan, F.R.S., the Middlesex Hospital has lost the senior member of its active staff, and the School of the Hospital its oldest lecturer; whilst the profession laments one of its most admired and respected members, and society is deprived of a genial, witty, and accomplished gentleman. Campbell de Morgan was born at Bideford, in Devonshire, in November, 1811. He was the youngest of four children, his elder brothers being Augustus, the well-known logician and Professor of Mathematics in University College, London, who died a few years ago; and George, a barrister, who is still living. His father was a colonel in the Indian Army, and died early in Campbell's boyhood in the year 1816 on his voyage home from India. His mother was a lady of considerable ability and strength of character, and on the death of her husband retired into Somersetshire for a time, and afterwards resided in London. In due time, Augustus and George went to Cambridge, and Campbell to Shrewsbury School. Campbell De Morgan acquired his turn for the profession during his early youth, and while at home with his family at Taunton.

There was then living in that town a medical practitioner named Standert, a remarkable man, who had been a pupil of Sir Anthony Carlisle. Standert was a thorough genius—a scholar, artist, and poet,—and was well known in his profession throughout the three western counties. He had a strong attachment for children, and became especially fond of Campbell De Morgan, who was always running in and out of his house. On one occasion, when Mr. Standert was articulating a skeleton, young De Morgan was very much interested, and told his friends that they were "putting together a man, and intended to knock in his soul with a hammer." From this time dated his predilection for anatomy. In 1828 he became a private pupil of Sir C. Bell, and entered for lectures at University College, London.

At this time there was a sort of union between the Middlesex Hospital and University College, for the students in attendance on the classes at the College sought their ward work and clinical instruction at the Hospital. Previous to the establishment of University College and King's College, the Middlesex Hospital had furnished the means of clinical instruction to the pupils of the celebrated Windmill-street School of Medicine, the teachers at which were, for the most part, connected with the Middlesex and St. George's Hospitals. After the opening of those Colleges this association of teachers was broken up, and the school of St. George's was started, while the students of University College attended the Middlesex Hospital. At length the managers of University College built a hospital of their own; and, as a natural consequence, the number of pupils at the Middlesex Hospital declined. On this account an address was presented to the governors of the Hospital on April 14, 1835, suggesting the establishment of an independent and complete school of medicine. This address was signed by Francis Hawkins, Thomas Watson, Charles Bell, Herbert Mayo, James M. Arnott, and E. W. Tuson (the staff of the Hospital at that time). It was at once favourably entertained by a committee of the governors, and the School was opened on October 1, 1835.

In the year 1832, Mr. De Morgan was appointed House-Surgeon of the Middlesex Hospital, and on October 9, 1835, he became a Member of the College of Surgeons. Thus was he a representative of the men educated under the former alliance which existed between the College in Gower-street and the Middlesex Hospital, while the commencement of his career as a qualified surgeon dates from the selfsame month as the foundation of the Medical School of the Middlesex Hospital.

During 1836 he spent several months at the continental hospitals, and after his return to London he lived with his mother and brother at 17, Manchester-street, where he commenced practice as a surgeon. Here he continued until after his marriage in May, 1848, when he soon removed into the house he ever afterwards occupied in Seymour-street. He never ceased to keep up his connexion with the Middlesex Hospital, with the view of ultimately being appointed on the staff.

In 1836, Sir C. Bell, who for twenty-two years had been one of the Surgeons to the Hospital, resigned upon being appointed to the Professorship of Surgery in the University of Edinburgh. Mr. Tuson went up in rotation, and Mr. Alexander Shaw, now Consulting Surgeon, succeeded unopposed to the vacant Assistant-Surgeoncy. It was not till six years later, viz., on December 15, 1842, that Mr. De Morgan was elected Assistant-Surgeon. He had, even then, to contest the appointment, but gained an easy victory over his opponent, who polled only 56 votes against Mr. De Morgan's 346. Just twelve months afterwards, on December 11, 1843, he was made an honorary Fellow of the College of Surgeons. On December 21, 1847, all the members of the Hospital staff resigned, on the understanding that all excepting one of the Surgeons should be re-elected; thus, on January 20, 1848, Mr. De Morgan was made full Surgeon, with Mr. J. M. Arnott and Mr. A. Shaw as his seniors; and at the same time the late Mr. C. H. Moore was elected to the Assistant-Surgeoncy rendered vacant by Mr. De Morgan's promotion.

For many years, and up to the time of his decease, Mr. De Morgan was a lecturer in the School. In 1840 he succeeded Dr. Leighton as Lecturer on Forensic Medicine; in 1845 he was appointed to the chair of Anatomy vacated by Mr. Tuson; and some years later he exchanged this for the chair of Physiology, which he held up to the year 1866. His lectures on Physiology were very popular with the students, especially those on the brain and nervous system, which always drew together a large and attentive audience, and are remembered and spoken of to this day with admiration and delight.

In 1866-67 he joined Mr. Shaw in the chair of Surgery. Mr. Shaw resigned in 1869, and Mr. Moore at once became associated with Mr. De Morgan in the lectureship. From the death of Mr. Moore up to last year he lectured on Surgery alone, but he then began to feel the exertion and fatigue too much for him, and wished to resign the chair altogether. At the entreaty of several of his colleagues, and with that self-sacrifice which always characterised his conduct, he consented to continue with Mr. Hulke. For many years he was

treasurer of the School—an office which he resigned only in 1870.

With the governing body of the Hospital Mr. De Morgan's opinion always carried great weight. He took an active part in the abolition of the open Weekly Board, and the substitution of an election board sitting with closed doors—a change which was much required, and one which helped to place the management of the Hospital upon the present orderly and efficient footing.

Very great assistance, too, was given by him in the reconstruction of the Hospital in 1848, the transformation of which by Mr. T. H. Wyatt was a marvel of architectural skill and sound judgment. For a long time the Middlesex Hospital consisted of only two storeys. The operating theatre was at the top of the building, the staircases were in the front, the front wings were only of the same length as the back wings, the out-patient department was between the male accident and the children's wards, while the dispensary was where the student's waiting-room now is. Previous to 1848 the front wings were lengthened; but it was in this year that the Hospital was still more enlarged, and made what it is at present.

Besides his close connexion with the Middlesex Hospital, he had been from its foundation associated with the Dental Hospital, and was chairman of its Managing Committee without break from the very first down to the time of his death. We have received from a well-known friend of the Dental Hospital a communication, by which we learn that in the prosperity of this institution, and the school thereto attached, Mr. De Morgan always took a very active interest, and seldom failed to attend the meetings of the Committee.

To the business brought before that body he gave his mind with such earnestness that he rarely failed to carry with him its members, and even to inspire in them the energy and care which have effected the generally acknowledged success of the Hospital, not only as a refuge for the alleviation of suffering, but also as a school for the instruction of dental pupils. Though not a dental surgeon himself, he took as great an interest in providing means for the efficient education of the dental as he had done at the Middlesex Hospital for the efficient education of the general surgeon. Such was the influence of his tact, good judgment, and regularity as chairman of the Managing Committee, that through all these years he so managed that little, if any, real division of opinion arose amongst its members. In 1874 he took the chair at the inaugural dinner of the New Dental Hospital, and the speech in which on that occasion he proposed success to the Dental Hospital contained many remarks characteristic of the man. He knew and felt (he said) that the world was not so utterly selfish as some people suppose, and he gloried in the thought that the heads of the dental profession, as the heads of the College of Surgeons had done previously, preferred the honour of their profession to any pecuniary considération, and were proof against the argument of the gentleman who, when it was proposed to improve the education of medical students, urged, "Why, what fools you are to do that; you will make the general practitioners just as good as ourselves, and they won't call us in for consultation!"

On the subject of medical education he was a pronounced reformer, as may be learnt from his introductory address delivered in 1856. In reference to this feature of his character, one of his old friends, and a former colleague, writes—"To him certainly is due that memorial presented to the College of Surgeons by the lecturers in the Middlesex Hospital School, which denounced in terms far too plain to be palatable to not a few of the members of the Council, the system which seemed purposely contrived to flood the profession with incompeteut men. It was the first formal utterance of a protest which has been ratified by the general adhesion of the medical profession, and has led to the great change which in recent years has marked the policy of the College."

There was one act in Mr. De Morgan's life which—albeit it was prompted by that strong sense of truth and honour which was an integral part of his nature, and which made him oppose everything that might dim the brightness of these principles—at one time provoked uncharitable bitterness against him. It was, too, the cause of his being persecuted for a while with grave accusations, when, some year afterwards, he led the van of an attack upon a portion of the medical press. Those who knew him best and were acquainted with all the circumstances of the case have seen few instances of moral courage so striking as that which sustained him in an almost single-handed conflict, with the certain prospect of these accusations being levelled at him. Circumstances, and the purity and consistency of his life, have more than vindicated his honesty of purpose, whatever differences of opinion may exist in other respects. All this, however, relates to scenes of the past, to which, though we have no disposition to unveil them, justice to his memory required that we should glance. He himself would, we know, prefer that they should slumber, and therefore

"Of them we speak not, take one look and pass."

As an original worker Mr. De Morgan was well known. Years ago he wrote a paper on the Nervous System of the Lobster; and in 1852, in conjunction with Mr. John Tomes, he made those researches on the Structure and Development of Bone, the results of which were embodied in a paper published in the *Philosophical Transactions*. Again, in the year 1858 there appeared in the same *Transactions* a paper on the Structure and Functions of the Hairs in Crustacea. On June 6, 1861, he was made a Fellow of the Royal Society.

He was a contributor to "Holmes' System of Surgery," and his paper in that book on Erysipelas is an evidence of the ability and thoroughness which stamped all his work. His contributions to the Pathological Society were numerous, and he gained by them the reputation of being a sound and learned pathologist, as his other work had marked him out to be a good anatomist and physiologist, as well as an experienced practical surgeon. Upon cancer in its various aspects he was a leading authority, as his writings on this subject sufficiently testify. He held, as is well known, very strong opinions as to the local origin of this disease, but though he was impressed with the correctness of his own views, he was fully alive to, and had in no partial or prejudiced manner considered, all that could be urged against them.

As an Examiner in Surgery at the Royal College of Physicians he was very popular. The suave and reassuring manner always natural to him was rendered more apparent in this capacity by his love of fair play; he considered it an act of downright injustice to do or say anything which could daunt or confuse a candidate, whose equanimity is usually somewhat disturbed during the ordeal of examination. He was of opinion that no one ought to examine in a subject he no longer taught, and his objection on this account to an examinership at the College of Surgeons was well known.

As a surgeon Mr. De Morgan never obtained the private practice which his talents and experience deserved: his indifference to fame and wealth, his lack of ambition for what are accounted the good things of this life, and a natural apathy, amounting almost to indolence of temperament, were entirely the cause of this.

He hated charlatanism, chicancry, and trimming of every kind, and was sometimes very severe towards those who seek success by these means. Nothing would induce him to make unnecessary visits or to accept exorbitant fees. He has often expressed himself very strongly on these points to the writer of this memoir, and on one occasion remarked that he had no ability for making a fortune, and then, with one of his quiet but expressive laughs, added, "A man to make money by his profession requires to be specially endowed at birth, and is verily, *persona nascitur non fit*." He, on the contrary, has often been known to refuse remuneration, and to tear up or burn cheques, out of consideration for those whom he had benefited by his skill. His experience was very great, his observation accurate, his reasoning logical and close; and his opinions, always deliberate, were usually correct, but rarely or never dogmatic. He was a careful, not a brilliaut, operator; he studied the safety of his patient, not his own style of operating; and though never rash, he was always bold when boldness was requisite.

The introduction of chloride of zinc as an antiseptic dressing for wounds, the treatment of empyema by drainage-tubes, and the admirable splint and pulleys for hip-joint disease, are all well known to be associated with his name.

It is much to be regretted he never had a seat upon the Council of the College of Surgeons, but this was his own choosing. Having made a promise he would never allow himself to be nominated as long as canvassing and the ballot were the method of election, he was not the man to break it. Thus the Council lost in him an eminent surgeon, a wise councillor, and a perfect specimen of a finished gentleman.

He held many appointments besides those he filled at the

Middlesex Hospital. He was Consulting Surgeon to the Dental Hospital, to the London Fever Hospital, and to the East Grinstead Dispensary, and was also Surgeon to the Institute for Invalid Gentlewomen in Harley-street, and to the Westminster and General Life Assurance Association.

Mr. De Morgan was not only a well-known surgeon, he was besides a highly popular member of society. His entire freedom from egotism, and from anything approaching self-seeking or self-assertion, secured him the goodwill of most. He was truly one of those

> "Gentlemen
> That neither in our hearts, nor outward eyes,
> Envy the great, nor do the low despise."

His urbanity and gentleness of manner, his bright humorous conversation, and his accomplishments as a musician and artist, made him a most delightful companion. At one time he and his brother Augustus were considered the two best amateur flute-players in London. He was, too, a good billiard-player. His ready wit will long be remembered, especially by his old pupils; some of his *bons mots* have been handed down as tradition amongst them. His remark on first seeing the carbolic spray used during an operation, that the motto of the operating-theatre ought thenceforth to be "Let us (s)pray"; and the exclamation on seeing an extensive scald, which he was told had been caused by the upsetting of preserved fruit, "Eheu! *jam* satis est!"—are only mediocre instances of his smart sayings.

He was a sympathising friend and a very ready helpmate; he gained the affection and confidence of all who knew him intimately, and they will ever associate with his tall and upright figure, and fine intellectual features, a kind heart, a pure and refined mind, and an unvarying, cheery disposition.

His modesty equalled his other virtues, and led him recently to decline a proffered testimonial and to request that no further steps might be taken in the matter. Some memorial will now, without doubt, be raised in his honour; and we understand that a committee has already been formed for the purpose.

The last act of his life was a service of kindness to a sick friend. For many months he had been in declining health, but on the day before he sat up with his old friend Lough, the sculptor, he was much better. The next day he was seized with pleuro-pneumonia, and died within five days, on April 12. Thus passed from amongst us one "whose remembrance yet lives in men's eyes." He was buried near his wife at Kensal-green, on April 18, when a large number of old friends, colleagues, and pupils paid their last tribute of respect.

Mr. De Morgan was in the sixty-fifth year of his age. He married, in 1848, Katherine Hobson, the daughter of a medical practitioner, and the sister of a medical friend. She died in the year 1859, and by her he had three children, a daughter who died in infancy, and two sons who survive their father.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation Term, the following candidates, after the usual examinations, received degrees in Medicine and Surgery:—

The Degree of M.D.—Colin Henderson, M.A., Ed., L.R.C.P.E., etc., London; Thomas Henry Morton, M.R.C.S., L.M., etc., Sheffield.

At the same time the following gentlemen received promotion to the degree of M.D.:—

Alexander George Burniss, M.B., London; Louis Richard Connor, M.B., Leicester; Alexander F. A. Fairweather, M.B., Pocklington, Yorks; John Roubel Gray, M.B., Thirsk, Yorks; Henry Arthur Hallett, M.B., Kimbolton; John Davidson Macdonald, M.B., Insch; William Muil, M.B., Kirby Moorside, Yorks; James Alexander Reid, M.B., Sale, Victoria, N. S. Walcs; John Shives, M.B., Millbridge, Yorks; Francis Henry Spencer, M.B., Cambridge; James Sutherland, M.B., Manchester.

The Degree of M.B.—William Copland Alexander, Greenock; Henry Martyn Barker, West Wick, Bedford; Henry Rufus Bell, Hull; William Bey, Tarland; James Brander, Urquhart, Elgin; Robert William Burnet, Huntly; Robert Calder, Edinkillie, Forres; Walter Smith Cheyne, Aberdeen; Alex. Livingston Christie, Aberdeen; Robert Cran, Kildrummy, Mossat; David Peter Duirs, M.A., Kinneff, Bervie; Herbert Arthur Glyn, London; Robert Turner Hales, Holt, Norfolk; William Keith Hatch, Shrewsbury, Salop; Frederic Mortimer Hawkins, London; Alfred Hodgson, Snaith, Yorkshire; John Hunter, Kilbirnie, Ayrshire; Robert Mathers Jack, Manchester; Walter Culver James, London; William Ambrose Kibbler, Hackney, London; Frederick Henry Kyngdon, Croydon, Surrey; Frank Harrison Low, London; Finlay Alexander M'Ewen, Assynt, Sutherlandshire; George Robert Macgregor, Canisbay, Wick; Alex. William Mackenzie, M.A., Logie Easter, Ross-shire; Patrick Brodie Henderson M'Leod, Strathy, Sutherlandshire; John Munro Moir, Aberdeen; James Miller Gordon Pirrie, Aberdeen; Charles Seymour; Harry Thomas Shapley, Torquay, Devon; James Simpson, Aberdeen; James Herbert Simpson, Pontefract, Yorkshire; Wm. John Ritchie Simpson Edinburgh; James Smith, M.A., Tullos, Nigg; John Thomson, Gartly; James Wm. Helenus Trail, M.A., Aberdeen; Henry Watson, Portsoy; William White, Nottingham; Alexander Williams, Leochel, Cushnie, Alford; John Osbert Wilson, M.A., Huntly.

The Degree of C.M.—William C. Alexander, Henry Rufus Bell, William Bey, James Brander, Robert Wm. Burnet, Robert Calder, Walter Smith Cheyne, Alexander L. Christie, Robert Cran, David Peter Duirs, Herbert Arthur Glyn, Robert Turner Hales, William Keith Hatch, Frederic M. Hawkins, Colin Henderson, Alfred Hodgson, John Hunter, Robert M. Jack, Walter C. James, Wm. Ambrose Kibbler, Fred. Henry Kyngdon, Frank H. Low, Finlay Alex. M'Ewen, George Robt. MacGregor, Alex. William Mackenzie, Patrick B. H. M'Leod, John Munro Moir, Thomas Henry Morton, James M. G. Pirrie, Charles Scymour, Harry Thomas Shapley, James Simpson, James Herbert Simpson, Wm. John R. Simpson, James Smith. John Thomson, James William H. Trail, Henry Watson, William White, Alexander Williams, John Osbert Wilson.

Of the above-mentioned candidates, James Simpson, James William H. Trail, M.A., and Alexander Williams received their degrees in Medicine and Surgery with highest Academical Honours; Robert William Burnet, Robert Turner Hales, William Ambrose Kibbler, Harry Thomas Shapley, William J. Ritchie Simpson, James Smith, M.A., and William White, their degrees in Medicine and Surgery with Honourable Distinction.

At the same time, Charles Broomhead, James Cran, Robert Keith Guild, and Henry Gray M'Robert were certified as having passed all the examinations, but did not graduate; and the following were declared to have passed part of their examinations:—

James Allan, James Anderson, William Barron, James W. Beattie, James M'Kenzie Booth, Ernest Brumwell, Samuel D. Clippingdale, Alex. Gray Connan, Frank A. Coward, William Deans, George Powell Doyle, Robert Eddie, Fred. John Fehrsen, Alex. Frederick Ferguson, William Fergusson, Wm. Balfour Fergusson, Edward Owen Giblin, Giles Forward Goldsbrough, Skene Gordon, David Hardie, James Heelas, William Henry, Samuel Patton Impey, Richard Jansz, Llewellyn Robert Jones, Timothy S. Jones, Edward Knowles, William Lamond, Edward James Loader, David Maver, Alexander M'Pherson, Robert J. Mills, Thomas W. A. Napier, James Neil, William H. Neilson, James Noble, James M. Park, Harris Philpots, Frederick F. L. Robertson, John Robertson, James Rose-Innes, James Ross, Henry Shirres, George Peter Schokman, William Robert Smith, Octavius Todd, Augustus D. Waller, George Watt.

The next professional examination for degrees in Medicine commences on Saturday, July 22, 1876.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 21:—

Brady, George Stewardson, M.R.C.S.E., L.S.A., Sunderland.
Davies, Andrew, M.R.C.S.E., L.S.A., Swansea.
Dixon, Edward Livesey, L.R.C.P. Lond., M.R.C.S.E., Preston.
Dobie, William, L.R.C.P. Edin., L.R.C.S. Edin., Keighley.
Granville, Joseph M., L.R.C.P. Lond., M.R.C.S.E., London.
Millard, William J. Kelson, M.R.C.S., L.M., L.S.A., Brighton.
Miller, George, L.R.C.S. Edin., Edinburgh.
Pearse, Frederick E., M.R.C.P. Edin., M.R.C.S.E., Stow-on-the-Wold.
Penhall, John T., F.R.C.S., L.S.A., St. Leonard's.
Roberts, Bransley, L.K.Q.C.P.I., M.R.C.S.E., L.S.A., Eastbourne.

At the same time, James Key, M.A. St. And., received the degrees of M.B. and C.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 24th inst., and when eligible will be admitted to the pass examination:—

Briggs, Henry, student of the Edinburgh School.
Butterworth, John T., of the Birmingham School.
Calder, Augustus B., of the Edinburgh School.
Harvey, Alfred, of the Birmingham School.
Illingworth, Charles R., of the Edinburgh School.
Mason, William H., of the Leeds School.
Oppenheim, Michael, of University College.
Orlebar, Hotham G., of the Aberdeen School.
Osborn, William H., of the Birmingham School.
Rhodes, Clement, of the Leeds School.
Richardson, William, of the Edinburgh School.
Rowlands, William, of the Liverpool School.
Shaw, Oliver Cromwell, of the Edinburgh School.

The following gentlemen passed on the 25th inst., viz.:—

Colborne, William W., student of University College.
Collins, George D., of King's College.
Gardiner, Bruce H. J., of the London Hospital.
George, G. Aldridge, of University College.
Jones, Wm. Clay, of the Middlesex Hospital.
May, Thomas H., of the Westminster Hospital.
Pickersgill, Edwin P., of the Leeds School.
Rawson, Ernest, of St. Bartholomew's Hospital.
Rennie, Samuel J., of the Liverpool School.
Rowlands, William, of the Liverpool School.
Satchell, W. Morris, of St. George's Hospital.
Shorland, Walter E., of the Bristol School.
Smith, Herbert A., of the Middlesex Hospital.
Van der Pool, Stephen J. J., of the Edinburgh School.

The following gentlemen passed on the 26th inst., viz. :—

Armitstead, Joseph, student of St. Mary's Hospital.
Bates, Henry L., of Guy's Hospital.
Blott, Herbert, of St. Bartholomew's Hospital.
Dearc, Edwin W., of Guy's Hospital.
Drinkwater, Harry, of the Newcastle and Edinburgh Schools.
Duncan, Sydney E., of University College.
Graves, Thomas W., of King's College.
Harding, Alfred N., of King's College.
Hawkins, Walter R. T., of the London Hospital.
Hayman, Sidney A., of St. Bartholomew's Hospital.
Jackson, Thomas, of the Middlesex Hospital.
Ross, Richard A., of Guy's Hospital.
Smith, Ernest B., of St. George's Hospital.
Vaisey, Thomas F., of St. Bartholomew's Hospital.
Willes, W., of St. Bartholomew's Hospital.

The following gentlemen passed on the 27th inst., viz. :—

Bryden, Richard J., student of Guy's Hospital.
Bush, Erasmus, of St. Bartholomew's Hospital.
Cox, Frederick A., of St. Mary's Hospital.
Drought, Eugene N., of St. Bartholomew's Hospital.
Fuller, L. Henry, of King's College.
Good, William E., of University College.
Greasley, John, of the London Hospital.
Hardy, H. L. P., of the London Hospital.
Harris, John R., of Guy's Hospital.
Hartley, William D., of Guy's Hospital.
Hewitt, John R., of St. Bartholomew's Hospital.
Leatham, Henry B., of St. Thomas's Hospital.
McLennan, Warwick G., of St. Mary's Hospital.
Payne, Charles A., of St. Bartholomew's Hospital.
Schön, Charles H., of University College.
Smith, Ernest F., of St. George's Hospital.
Von Beverhoudt, W. F. H., of King's College.
White, Richard W., of Guy's Hospital.
Wood, Charles, of Guy's Hospital.

Examinations.—The following is a copy of the questions on Anatomy and Physiology which was submitted to the candidates (148 in number) on the 21st inst., when they were required to answer four (including one of the first two) out of the six questions, viz. :—1. Compare the effects of active and prolonged exercise with the ordinary changes which take place in the body during rest. 2. Describe the structure and functions of the true vocal cords. How is speech effected? 3. Describe the ligaments by which one of the middle ribs is united to the vertebral column. 4. Describe the course, relations, and distribution of the musculo-spiral nerve. 5. Describe the boundaries of the popliteal space and its contents in the order in which they appear on dissection. 6. Describe the course and relations of the œsophagus.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 20 :—

Bouton, George Charles, Dinon, France.
Brown, Thomas Lloyd, Brunswick Villa, Camberwell.
Edmunds, Walter, Hampstead.
Gillibrand, William, Standish, Lancashire.
Jolly, Samuel Aird, Tue Brook, Liverpool.
Scatliff, Arthur William, Clapham-common.
Steele, Henry Frederick, Stoke Ferry, Norfolk.
Vachell, Herbert Redwood, Cardiff, South Wales.
Wade, Arthur Breedon, Ryde, Isle of Wight.

The following gentlemen also on the same day passed their primary professional examination :—

Gayton, Francis Carter, St. Bartholomew's Hospital.
Tester, Richard Carr, London Hospital.
Thomas, Hugh William, Queen's College, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUCK, THOMAS ALPHEUS, M.B. Lond.—Honorary Assistant Medical Officer to the Royal Isle of Wight Infirmary.

DUFFEY, GEORGE F., M.D. Dub., F.K.&Q.C.P. Ire.—Physician to Mercer's Hospital, Dublin.

MCKENZIE, GEORGE HUNTER, M.B., C.M. Edin.—Senior Medical Assistant at the Gloucester County Asylum, *vice* Dr. J. A. Philip, appointed Medical Superintendent of the Lincoln Lunatic Asylum.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The undermentioned officers have been appointed to the rank of Fleet-Surgeon in her Majesty's Fleet, with the seniority stated against their names, viz :—John Fisher, from April 3, 1876; John T. Gabriel, from April 9, 1876; Constantine Keenan, from April 11, 1876.

WAR OFFICE.—MEDICAL DEPARTMENT.—William Chambers Lawson, M.R.C.V.S., has ceased to be an Inspector of the Privy Council for the purposes of the Contagious Diseases (Animals) Act, 1869, from April 13, 1876.

BIRTHS.

COPLAND.—On April 14, at 87, Ladbroke-grove, Notting-hill, the wife of James Charlesworth Copland, surgeon, of a daughter.

LETT.—On April 17, at Wadingham, Lincolnshire, the wife of R. Alfred Lett, B.A., M.B. Dub., of a son.

LEWIS.—On April 23, at 2, Gordon-square, the wife of Dr. Waller Lewis, of a son.

RING.—On April 24, the wife of John Ring, M.D., of Kilburn, of a daughter, stillborn.

MARRIAGES.

BULL—JACOB.—On April 20, at St. James Norlands, Notting-hill, William Bull, F.R.C.S.E., of Emsworth, Hants, to Marion, second daughter of William Jacob, Esq., of 41, Norland-square, N.

CROSSLEY—ANDERSON.—On April 20, at St. Mark's Church, Notting-hill, William J. Crossley, Esq., second son of the late Major Crossley, of Glenburne, county Antrim, Ireland, to Mabel Gordon, daughter of F. Anderson, M.D., Inspector-General of Hospitals, of Ladbroke-grove, Notting-hill.

CURT—SMITH.—On April 18, at St. Mary's Church, Balham, Joseph John Anthony, eldest son of Mr. Joseph Curt, of Balham-grove, to Annie Maria, fifth daughter of Dr. Smith, of Framlingham, Suffolk.

DENTON—PARADISE.—On April 18, at St. Mary's Parish Church, Stamford, Thomas J. Denton, M.D., of Steeple Claydon, Bucks, to Florence Elvena, daughter of John Paradise, Esq., J.P., of Stamford.

FAIRBANK—SYMPSON.—On April 20, at St. Mary Magdalene's, Lincoln, F. Royston Fairbank, M.D., of Doncaster, to Dora, second daughter of the late T. C. Sympson, surgeon, of Lincoln, and sister to T. Sympson, F.R.C.S.

GILES—HILL.—On April 19, at St. Pancras Church, George E. Giles, Esq., Royal Artillery, elder son of Commander Edward Giles, Indian Navy, to Mary A. S., elder daughter of Samuel Hill, M.D., of Mecklenburgh-square, W.C.

GILLESPIE—PRYCE.—On April 20, at the parish church, Hove, Brighton, John Williams Gillespie, M.D., late of H.M.'s 5th Fusiliers and Mauritius Civil Service, to Caroline, widow of James Everard Coulthurst Pryce, of Bombay, and youngest daughter of the late Robert Ellis, of 2, Lansdowne-crescent, Kensington-park, and St. Michael's-alley, Cornhill.

GRIFFIN—BROCKLISS.—On April 18, at St. Mary Magdalene's, Oxford, Innes Griffin, M.R.C.S.E., L.S.A., eldest surviving son of Dr. Griffin, J.P., of Banbury, to Mary Eliza, only daughter of the late E. L. Brockliss, of St. John-street, Oxford.

HAWARD—NICHOLLS.—On April 20, at St. John's, Moulsham, Chelmsford, Warrington Haward, F.R.C.S., of 5, Montagu-street, Portman-square, to Amy Cecilia, eldest daughter of James Nicholls, M.D., F.R.C.S., of Chelmsford.

HILL—BRIGGS.—On April 22, at the parish church, Hove, Brighton, William G. Hill, F.R.C.S., H.M.S. *Hector*, to Katherine E. H. L., widow of Colonel Howden T. Briggs, late Bombay Staff Corps, and daughter of the late General Haughton James, Bombay Army.

PAGAN—LONSDALE.—On April 18, at the British Consulate, and afterwards at St. Paul's Church, Cannes, William, son of the late Dr. S. A. Pagan, of Edinburgh, to Ethilda Wagstaffe, daughter of the late William Lonsdale, formerly Captain of the 4th Regiment.

READ—SHERLOCK.—On April 20, at Powke, Worcestershire, Charles Stokes Read, Esq., B.A. Trin. Coll., Camb., and of the Stock Exchange, London, second son of J. F. H. Read, Esq., of Walthamstow, Essex, J.P., to Sarah Emma Macpherson, eldest daughter of James Sherlock, M.D., of Powke, Worcestershire.

RUSSELL—WARDROP.—On April 19, at St. Andrew's Church, Aberdeen, James Russell, M.B., M.R.C.S., of Croydon, Surrey, to Ellen Elizabeth, daughter of Thomas Yuille Wardrop, of Aberdeen.

STEVENS—WHEELER.—On April 20, at Loudwater, Wycombe, Bucks, Henry Smeeton Stevens, curate of St. Mary's, Leamington, nephew and adopted son of the late R. Stevens, F.R.C.S. Eng., M.R.C.P. Edin., to Esther, daughter of the late Robert Wheeler, Esq., of High Wycombe.

DEATHS.

BARNETT, ELIZA, widow of the late John Barnett, M.D., on April 22, at Iffley Villa, Upper Norwood, aged 76.

BATEMAN, CHARLES, M.R.C.S. Eng., etc., on April 17, at East Bridgeford, Notts, aged 45.

CARTE, JOHN ELLIOTT, C.B., Inspector-General of Hospitals, on April 19, at Portland-place, Brighton.

CORMACK, JOHN ROSE BAILLIE, eldest surviving son of Sir John Rose Cormack, M.D., of Paris, on April 21, at Hyères, France, in the 28th year of his age.

GARTY, FRANCIS BOYLE, M.R.C.S.E., on April 18, at 6, Clyde-terrace, Stockwell-road, aged 59.

HICKS, MARY, youngest daughter of the late George Hicks, surgeon, of Baldock, Herts, on April 14, at Alfred-street, Bath, aged 65.

LEHFELDT, ALBERT, M.D., formerly of Basingstoke, Birmingham, and Tiverton, on April 17.

LOWRY, ANN, widow of James Lowry, M.D., R.N., on April 16, at 1, Brunswick-villas, South Penge, in her 91st year.

MAHOMED, ELLEN, the wife of F. A. Mahomed, M.D., and eldest daughter of the late Charles Chalk, solicitor, of Brighton, on April 20, at 54, Norfolk-square, Hyde-park, W.

MARTYN, KATHERINE SPENCER, wife of Samuel Martyn, M.D., of Clifton, Bristol, on April 23, at Hastings.

WOOD, JOHN YORKE, M.R.C.S., on April 20, at Ashton-street, Liverpool, in his 65th year.

VACANCIES.

GUISBOROUGH UNION.—Medical Officer of Health. Applications, accompanied by testimonials, and stating the qualifications of the applicant, to Arthur Buchanan, Clerk, on or before May 8.

Leicester Infirmary and Fever House.—House-Surgeon and Apothecary. Candidates must be a Fellow or Member of the College of Surgeons of London, Edinburgh, or Dublin; and also a Licentiate of the Royal College of Physicians, London, or of the Apothecaries' Company of London, and shall have been registered under the Medical Act. Original testimonials addressed to T. A. Wykes, Secretary, 24, Friar-lane, Leicester, on or before Monday, May 8.

Northampton General Infirmary.—Dispenser. Applications, accompanied by recent testimonials, to be sent to the Secretary, not later than May 8.

Parish of Birmingham.—Resident Assistant Workhouse Medical Officer. Candidates must possess the double qualification required by the Local Government Board, and be duly registered under the Medical Act. Applications, with testimonials, to the Guardians of the Poor of Birmingham, stating the age of applicant, on or before May 4.

Queen's Hospital, Birmingham.—Two House-Surgeons. Salary £50 per annum, with board and lodging. Original testimonials and certificates of registration must be sent to the Secretary, on or before May 26.

Wolverhampton and Staffordshire General Hospital, Wolverhampton.—House-Surgeon. Salary £100 a year, with board, washing, and furnished apartments. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and Licentiates of the Apothecaries' Company, London. Testimonials, under cover and sealed, to the Chairman of the Medical Committee, not later than Saturday, May 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Auckland Union.—Mr. John G. Todd has resigned the Byers Green District; area 2045; population 4815; salary £20 per annum.

Crickhowell Union.—Mr. J. E. Peirce has resigned the Hill District; area 11,752; population 7466; salary £24 per annum.

Dursley Union.—Mr. F. J. Joynes has resigned the Third District; area 6410; population 2316; salary £80 per annum.

Fulham Union.—Mr. E. C. Barnes has resigned the Workhouse; salary £100 per annum.

APPOINTMENTS.

Carmarthen Borough.—Wm. Morgan, F.C.S., as Analyst.

Newport (Salop) Union.—James S. Greene, M.R.C.S. Eng., L.S.A., to the Third District.

Plympton St. Mary Union.—Philip W. Govett, M.R.C.S. Eng., L.S.A., to the Fifth District.

Thingoe Union.—George F. Masterman, L.K. & Q.C.P. Dub., M.R.C.S., L.S.A., to the First District.

Towcester Union.—James B. Weir, M.D. Glasg., L.R.C.S. Edin., to the Silverstone District.

Walsingham Union.—Francis Coomber, M.R.C.S. Eng., L.R.C.P. Lond., to the Fakenham District.

Williton Union.—George T. Stockwell, M.R.C.S. Eng., to the Dunster District.

Budget of the University of Leipsic.—This institution, which has a revenue of 316,000 marks (shillings), receives also a subvention from the State of 754,000 marks, making a total of 1,070,000 marks. The salaries of the professors amount to 506,000 marks—viz., 5300 for the Faculty of Theology, 9400 for that of Laws, 87,000 for that of Medicine, and 271,000 for that of Philosophy, including the Sciences. The budget of the collections and laboratories amounts to 34,300 marks; and the expenses of administration, etc., require 5900 marks.—*Presse Belge*, April 16.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

J. R.—Ask at Renshaw's.

H. M., St. Mary's.—Subscriptions to the Gascoyen Testimonial may be paid to Mr. Spencer Smith, of Queen Anne-street.

A Successful Candidate.—The following are the members of the *Board* of Examiners for the *primary* examination for the diploma of Membership of the Royal College of Surgeons—viz., Mr. W. S. Savory, F.R.S., Chairman; Mr. Birkett associated with Mr. Power; Mr. Holden with Mr. Heath; Mr. Forster with Mr. J. Wood, F.R.S.; and Mr. Holmes with Mr. J. W. Hulke, F.R.S. Mr. John Birkett, Vice-President of the College, is Chairman of the *Court* of Examiners.

F.R.C.S., Manchester.—The late Mr. Southam, who expired on Monday last, was admitted a Member of the Royal College of Surgeons, July 20, 1838; became a Fellow, October 13, 1853; and was elected on the Council of the College in 1873, with Professor Marshall and Mr. Haynes Walton.

Fire-Worshipper.—The German organ of the cremation movement is *The Gazette for the Promotion of Fire-Burials*, published at Weilburg. The present is the second year of its existence. Cremation societies are established at Zürich and Milan.

Dens Sap.—Mr. George S. Wells, of Kensington-garden-square, is *not*, as he states in his advertisement, a *Licentiate* of the Royal College of Surgeons of England; it is a title which has no existence. The advertisement, which is in very bad taste, has been forwarded to the Secretary of the College, to submit to the Dental Board of that institution.

E. C.—The dissertations for the Triennial Prize must be delivered at the Royal College of Surgeons on December 30 next. The subject is "The Radicles of the Lymphatic System in relation to the External and Internal Surfaces of the Body." The value of the John Hunter Medal is fifty guineas.

G. G., Suffolk.—The establishment of a Board as a Commission in Lunacy originated with Mr. Robert Gordon, M.P. for Windsor. Mr. Gordon moved for a committee of inquiry into the regulation of lunatic asylums in 1826-7, during the short administration of Mr. Canning, and the shocking abuses discovered in the progress of the inquiry led to the establishment of the Metropolitan Commission in Lunacy, by the Acts of the 9th and 10th George IV.

Erratum.—In the list of the examiners recently appointed in the Faculty of Medicine of the Queen's University in Ireland, the name of the Examiner in Medical Jurisprudence was erroneously printed "William Stokes, F.R.C.S. Ire." It should have been William Stoker, F.R.C.S. Ire.

The Radcliffe Travelling Fellowship.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I observe an important error has crept into your answer to Mr. A. Thompson's question as to Radcliffe Travelling Fellows in your issue of to-day. You say that the Travelling Fellows must be "M.A.'s" . . that the Fellowship is tenable for ten years, etc. It may be of use if I quote the essential regulations now in force, viz.:—One Fellowship is vacant each year, and is tenable for three years only, and of the annual value of £200. Candidates need not be Masters of Arts, or entered on the Physic line, but must have passed all the examinations required for the degree of B.A., and must have been placed in the first class at one of the public examinations, *or* have obtained some University prize or scholarship open to general competition. Each candidate must declare he intends to graduate in Medicine in the University of Oxford, and to travel abroad with a view to his improvement in that study; and no one is eligible who is legally qualified to practise as a physician. Should no person be found willing to make such a declaration, of sufficient merit as a candidate for election, the vacant fellowship is to be thrown open to all persons who have been placed in the first class in Natural Science, whether authorised to practise or not, and the person so elected is not to be required to make such declaration. A Fellow forfeits his fellowship if more than eighteen months within the United Kingdom. Trusting these facts may be of use, I am, &c.,

Magdalen College, Oxford, April 22. Edward Chapman.

An Ancient Preservative.

In his Diary—1720-21, January 2,—Thomas Hearne writes:—"I have been told that in the last great plague at London, none that kept tobacconists' shops had the plague. It is certain that smoking was looked upon as a most excellent preservative, insomuch that even children were obliged to smoke; and I remember that I heard formerly Tom Rogers, who was yeoman-beadle, say that when he was that year when the plague raged a school-boy at Eton, all the boys of that school were obliged to smoke in the school every morning, and that he was never whipped so much in his life as he was one morning for not smoking."

Opium-Smokers.

Her Majesty's Vice-Consul at Kinkiang, writing to the Foreign Office, remarks on this subject that—"During my tour on the Upper Yang-tze, and in Szechnen, I was thrown into the closest relations with junk sailors and others, almost every adult of whom smoked more or less, and I was much struck with the effect it had on them. Their work was of the hardest and rudest—rising at four, and working, with hardly any intermission, till dark, having constantly to strip and plunge into the stream in all seasons, and this when in the most dangerous parts. The quantity of food they ate was simply prodigious, and from this and their work it seems fairly to be inferred that their constitution was robust. The two most addicted to the habit were the pilot and the ship's cook. On the incessant watchfulness and steady nerve of the former the safety of the junk and all on board frequently depended, while the second worked so hard from 3 a.m. to 10 p.m., and often longer, and seemed so independent of sleep or rest, that to catch him seated or idle was sufficient cause for good-humoured banter. This latter had a conserve of opium and sugar which he chewed during the day, as he was only able to smoke at night. I do not imagine that the Szechnen drug differs sufficiently from the Indian to account for these instances of harmless smoking; nor, on the other hand, do I wish to express it as my opinion that opium-smoking does no harm; but my opinion with regard to it has been much modified, and I am bound to recognise the fact that the habit can, and does, exist without detriment to health or capability, merely affording a solace and a stimulant."

COMMUNICATIONS have been received from—

Mr. J. Knowsley Thornton, London; Mr. W. E. Poole, London; Registrar of the Medical Society of London: Dr. F. Churchill, London; Mr. Henry Morris, London; Mr. John Chatto, London; Mr. George Brown, London; Dr. Francis Ogston, Aberdeen; Dr. Smith, Wray-park, Reigate; Secretary of the University of Aberdeen; Mr. Edward Chapman, Oxford; Mr. John T. Penhall, St. Leonard's; Dr. Bell Taylor, Nottingham; Messrs. Schacht and Towerzey, Clifton; Registrar of the Pathological Society, London; Mr. W. Spencer Watson, London; Mr. Hancocke Wathen, Fishguard; Dr. Robert Lawson, Wakefield, Yorkshire; Dr. J. Pearson Irvine, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—New York Medical Journal, April, 1876—The Canada Lancet, April, 1876—Canada Medical and Surgical Journal, April, 1876—Philadelphia Medical Times, April, 1876—The Louisville Medical News, January 1 to April 8, 1876—The Chicago Medical Journal and Examiner, April—The American Journal of the Medical Sciences, April—The Builder—The American Practitioner, April—The Students' Journal and Hospital Gazette—Archivio Clinico dei Medici Condotti Italiani—Nature.

BOOKS AND PAMPHLETS RECEIVED—

Fifty-fifth Report of the Seamen's Hospital (late *Dreadnought*), Greenwich, S.E.—George Barlow, The Gospel of Humanity, or the Connexion between Spiritualism and Modern Thought—Robert F. Weir, M.D., on the Normal Urethra and its Constrictions in relation to Strictures of Large Calibre—Dr. Samuel Pozzi, De la Valeur de l'Hystérotomie dans le Traitement des Tumeurs Fibreuses de l'Uterus—Edwin Lankester, M.D., LL.D., F.R.S., &c., Practical Physiology—Austin Flint, jun., M.D., on the Physiological Effects of Severe and Protracted Muscular Exercise—W. S. Trench, M.D., Report on the Health of Liverpool during the year 1875—A. H. Downes, M.B., M.D., How to Avoid Typhoid Fever—St. Thomas's Hospital Reports, Vol. VI.—Alfred Meadows, M.D. Lond., F.R.C.P., A Manual of Midwifery—John Coutts, Man's Organic Constitution—Dr. Edward Levinstein, Die Morphiumsucht—Balmanno Squire, M.B. Lond., On the Treatment of Chronic Eczema by Glycerole of Subacetate of Lead—R. Locke Johnson, L.R.C.P., etc., Food Chart—Henry J. Yeld, M.D., F.C.S., Report on the Health and Sanitary Condition of the Borough of Sunderland for the year 1875—Robert Lewins, M.D., Life and Mind, their Unity and Materiality—Le Docteur Ch. Abadie, Traité des Maladies des Yeux.

APPOINTMENTS FOR THE WEEK.

April 29. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. W. K. Clifford, "On the Present Relations of Science and Philosophy."

May 1. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Conversazione. Annual Oration by Prof. Erasmus Wilson, "On the Progress of Cutaneous Medicine during the Present Century."

Royal Institution, 2 p.m. Annual Meeting.

2. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8½ p.m. Dr. Greenfield—1. Double Mitral Valve; 2. Multiple Ulcers of Stomach. Dr. Peacock—1. Aneurism of Aorta opening into Bronchus; 2. Malformed Heart. Dr. Moxon—Acute Aortitis causing Angina Pectoris. Dr. Duckworth—Malformed Heart. Dr. Hilton Fagge—1. Specimens of Lardaceous Disease; 2. Dissecting Varix of Femoral Vein; 3. Pyæmic Abscesses in Lung cured. Dr. Crisp—1. Pneumonia in Birds; 2. Enlarged Tail-Glands in Common Fowl. Dr. Squire—Larynx from Croup. Mr. Nettleship—Sarcoma of Sclerotic. Dr. Yeo—Disease of Aorta. Mr. Butlin—Tumour of Scalp growing in Sebaceous Cyst. Mr. Teevan—Organs after Lithotrity.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On the Comparative Geology and former Physical Geographies of India, Australia, and South Africa."

3. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Cooper Rose, "A Contribution to the Statistics of Midwifery in General Practice." Dr. Gervis, "Case of Puerperal Septicæmia." Dr. Wiltshire, "Notes of a Case of Puerperal Septicæmia and Phlegmasia Dolens; Recovery." Dr. Hugh Miller, "Case of Ovarian Dermoid Cyst." And other Communications.

Royal Microscopical Society, 8 p.m. Dr. J. J. Woodward, "On the Markings of the Body-Scale of the English Gnat and the American Mosquito."

4. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Harveian Society, 8 p.m. Mr. Teevan, "On the Treatment of Gleet."

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

5. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Gladstoue, "On Methods of Chemical Decomposition illustrated by Water."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 22, 1876.

BIRTHS.

Births of Boys, 1308; Girls, 1249; Total, 2557.
Average of 10 corresponding years 1866-75, 2252·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	893	738	1631
Average of the ten years 1866-75	754·1	709·3	1463·4
Average corrected to increased population ...	...	...	1566
Deaths of people aged 80 and upwards ...	...	...	70

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	17	5	2	17	1	2	...	3
North	751729	...	17	10	3	22	...	2	...	4
Central ...	334369	...	4	5	1	2	...	2	...	...
East	639111	...	12	7	1	21	2	3	1	3
South	967692	...	9	19	2	36	1	2	2	7
Total	3254260	...	59	46	9	98	4	11	3	17

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·332 in.
Mean temperature	47·5°
Highest point of thermometer	62·4°
Lowest point of thermometer	33·5
Mean dew-point temperature	41·6°
General direction of wind	N.E., S.S.E., & S.S.W.
Whole amount of rain in the week	0·20 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 22, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending April 22.	Deaths Registered during the week ending April 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2557	1631	62·4	33·5	47·5	8·61	0·20	0·51
Brighton	100632	42·7	59	50	59·0	37·3	47·6	8·67	0·61	1·55
Portsmouth ...	124867	27·8	81	63	...	...	...	...	...	...
Norwich	83430	11·2	58	30	...	...	...	...	...	...
Plymouth	72230	51·8	48	42	58·0	37·0	46·4	8·00	1·81	4·60
Bristol	199539	44·8	137	84	58·7	30·6	45·1	7·84	0·93	2·36
Wolverhampton ...	72549	21·4	59	32	62·2	30·3	45·0	7·22	1·34	3·40
Birmingham ...	371839	44·3	333	185	59·0	31·5	45·4	7·44	0·59	1·50
Leicester	113581	35·5	114	55	63·0	33·0	47·0	8·33	0·49	1·24
Nottingham ...	93627	46·9	64	42	60·0	29·7	45·6	7·56	0·26	0·66
Liverpool	521544	100·1	392	360	57·1	36·9	45·6	7·56	0·48	1·22
Manchester ...	357917	83·4	304	230	61·2	32·5	46·9	8·28	0·58	1·47
Salford	138425	26·8	158	92	59·8	31·8	45·0	7·22	0·73	1·85
Oldham	88609	19·0	63	63	...	...	...	...	...	...
Bradford	173723	24·1	166	88	56·8	35·8	44·4	6·89	0·44	1·12
Leeds	291580	13·5	271	159	57·0	31·0	44·9	7·17	0·44	1·12
Sheffield	274914	14·0	245	156	59·0	29·5	44·6	7·01	0·43	1·09
Hull	136933	37·7	119	51	61·0	27·0	45·1	7·28	0·46	1·17
Sunderland ...	108343	32·8	89	39	...	...	...	...	...	...
Newcastle-on-Tyne	139929	26·1	121	63	...	...	...	...	...	...
Edinburgh	215146	51·3	134	89	...	...	...	...	...	...
Glasgow	545144	90·4	503	314	57·4	34·1	45·4	7·44	0·37	0·94
Dublin	314666	31·3	196	203	60·0	35·0	47·5	8·61	0·62	1·57
Total of 23 Towns in United Kingdm	8028595	37·7	6271	4121	63·0	27·0	45·9	7·72	0·63	1·60

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·33 in. The highest was 30·08 in. at the beginning of the week, and the lowest 28·75 in. on Wednesday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF THE

LUMLEIAN LECTURES: THE PATHOLOGY OF THE PNEUMOGASTRIC NERVE.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By S. O. HABERSHON, M.D., F.R.C.P.,
Senior Physician to, and Lecturer on Medicine at, Guy's Hospital.

Lecture II.

In this lecture, we pass on to the consideration of those pathological changes in the œsophagus, and in the lungs, and in the heart, which are connected with disturbances of the par vagum, and we shall find fresh exemplification of the three laws which we dwelt upon at last lecture.

1. Disease at the central origin of the nerve may induce symptoms of irritation in any other part supplied by the same nerve.

2. Irritation in any set of puerperal branches may produce disturbance in any other part to which the nerve is distributed, or in the centre itself.

3. Alteration of irritation may be produced; at first one set of nerves, then another, becoming implicated.

The œsophagus receives a large supply from the pneumogastric, and the branches of the nerve form a plexus upon it; but, besides these branches direct from the trunk of the nerve, others are derived from the recurrent nerve, as well as from the sympathetic. This nervous supply is especially concerned with the regulation of the movements of the muscular layers of the canal, for the œsophagus is a mere channel of communication between the pharynx and the stomach. This muscular layer is thrown into a state of spasmodic contraction from the increased irritability of its nervous supply; or, from exhausted nerve-power, it is weakened and paralysed. When the power of the pneumogastric is destroyed, as by division of the nerve, the food is retarded in its passage down the tube. It may be convenient, therefore, to divide the nervous affections of the œsophagus, which have to do with the pneumogastric nerve, into those which are of a spasmodic and those which are paralytic in character; and each of these may be traced to central or to local disease, or they may be produced by peripheral irritation.

Spasmodic stricture.	Central	Mania. Epilepsy. Nervous irritability.
	Local	Foreign bodies. Pressure on the canal by tumours; enlarged glands; aneurism. Organic obstruction and ulceration.
	Peripheral	Hysteria. Disease of heart. Disease of aorta and aneurism. Flatulence.
Paralysis	Central	Exhaustion.
	Local	Pressure on pneumogastric nerve; aneurism, etc.
	Peripheral	Disease of stomach, etc.

Although the mucous membrane of the œsophagus does not possess great sensibility, still there are decided sensations produced by the passage of food down the canal, as a sense of heat or of coldness, of fulness and distension, or of severe pain; and sometimes the sensibility is increased so that patients complain of a sense of soreness, of roughness, or the whole canal is unduly sensitive: sometimes this augmented sensibility exists only in the imagination of the patient. The process of deglutition is completed by the passage of food down the œsophagus into the stomach, but food or saliva or other substance must be present to excite the act: a person cannot swallow without something to excite the contraction by reflex irritation. A young gentleman called upon me in great distress, believing that he had organic obstruction in the gullet. During the whole of his journey from Rugby to London he had been trying to swallow, but without success, as he could not complete the act when saliva had already been swallowed. He did not understand the physiological process, and his mind was at once calmed and his fears dissipated when a glass of water was given to him. In some cases of mania, as also in many cases of spasmodic reflex irritation in hysteria, patients believe that there is obstruction, and that there is no passage. Nothing is swallowed, because the attempt is not made: the cerebral centre is at fault. The loudest protestations are made that food will not pass, and the patients will often refuse to make the attempt. The passage of an œsophageal bougie proves that there is no obstruction, and some may be induced to make the attempt after this operation has once been performed. It is probable that some spasmodic contraction induces the sensation of obstruction. This form of spasmodic affection is a common symptom in many cases of mental disease, and sometimes it is amongst the earliest indications of the malady.

A similar kind of spasmodic obstruction occurs in some cases of epilepsy, and after sunstroke a sense of choking and obstruction in the throat is produced somewhat similar to globus hystericus, but due not to reflex but to central mischief; and again, in other patients, local spasmodic irritation and contraction of some part of the œsophagus may be produced which cannot be traced to local disease or to irritation of a reflex kind. For years, persons complain of hindrance to the free passage of food where no stricture exists; it may be at the centre of the canal or at its termination. In an instance of this kind, a member of our profession was, for a time, in great fear that organic disease existed, and he took his meals alone, on account of the care that he required in getting the food to pass into the stomach, but he found that by taking a deep inspiration the spasmodic contraction, probably near the diaphragm, became relaxed, and the food slipped onwards into the stomach. It must, however, be remembered that all local disease of the œsophagus produces spasmodic contraction from irritation of the part; and that a partial obstruction or narrowing of the canal is often rendered complete from this cause; some, indeed, have believed that long-continued spasmodic contraction may produce thickening of the connective tissue, and lead to organic obstruction. It would be foreign to our purpose here to describe organic obstruction, whether from external disease or pressure of glands, tumours or aneurism, or thickening of the coats of the canal, whether from fibro-cellular tissue, from the healing of ulcers, cancerous or other deposit, further than that spasmodic contraction always plays an important part in the symptoms produced. The spasmodic contractions which are of a reflex character are well known. In the globus hystericus, a sudden sensation as of a ball in the throat is produced, and a sense of suffocation; the respiration is disturbed, with sighing and irregular breathing, and the emotional centre, and often the whole of the spinal nerves, are excited to perverted action. Peripheral disturbance of sentient nerves leads to the excitement of the medulla oblongata and the origin of the par vagum; the irregular contraction of fibres of the œsophagus, especially of the circular fibres, leads to this sensation of a ball in the throat. In many instances there is disordered uterine and ovarian function; whilst in others, from general weakness, the emotional centres of the brain react upon the medulla and its nerves. Very similar sensations are produced by flatulent distension of the stomach and transverse colon: the sensation at the upper part of the chest is a purely reflex one, and it is principally due to the pneumogastric, but increased by the condition of the upper dorsal nerves from their connexion with the splanchnic nerves, since the latter have their origin in the dorsal nerves, and pass down to the abdominal viscera. In some cases of heart disease, spasmodic irritation of the œsophagus is induced, coming on suddenly, and with most distressing sense of obstruction. Some refer this reflex action to the branches of the cardiac plexus uniting with the pneumogastric; others to the recurrent nerve, which sends a branch to the cardiac plexus; whilst others attribute the sensation to a mechanical cause, the distension of the left auricle, which is in close proximity with the œsophagus. The pathology of these cases is very different, and the simple spasmodic obstruction may be easily mistaken for that which is organic. In the first kind, it is important to compel the œsophagus to do its work; in the second, it is equally important to allow it to rest; whilst in the last, the removal of the peripheral mischief will soon dissipate the spasmodic hindrance.

The paralytic affections of the œsophagus are found at the close of other diseases, but these also arise from central, local, or from peripheral disturbance. In general exhaustion, deglutition is slow, because the pneumogastric is in a weakened state, and food may even on this account remain in the œsophagus itself, or perhaps pass from the stomach into the lower part of the canal, and produce solution by the action of the gastric fluids; in this way the œsophagus may be dissolved and even perforated during life. Local pressure upon the

pneumogastric nerve, or ulceration, may also destroy its power and paralyse the muscular energy and the sensibility. And lastly, at the close of some abdominal diseases, as of the stomach and uterus, the power of the œsophagus is lost, and patients are unable to get food into the stomach. In these instances, the condition is one of exhaustion, and of the cessation of living power in the system; and with this loss of sensibility in the œsophageal branches of the nerve, there is only a slight step to the cessation of the more essentially vital act, that of respiration.

The pathological relations of the nerve with the lungs and with respiration next demand our attention. The pulmonary plexuses are situated at the root of the lungs; they are connected with the sympathetic and with the cardiac branches of nerves, and are distributed to the minute structures of the lungs; it has been shown that this irritation of the pneumogastric will cause the bronchi to contract. In the morbid processes which are recognised, we may adopt the same arrangement as previously—namely, into those of a spasmodic and into those of a paralytic kind; in the former, there is increased irritability of the sentient centre, the respiration is quickened, and there may be violent cough and dyspnœa; in the latter, the respiratory centre is weakened or paralysed, there may be but little or no cough, and no effect produced by irritants; the respiration is slow, but deep and irregular.

- Spasmodic irritation
  - Central ...
    - Irritability from exhaustion.
    - In fevers, etc.
    - Asthma (spasmodic).
    - Whooping-cough.
  - Local ...
    - Hay-asthma.
    - Bronchitis.
    - Pneumonia.
    - Emphysema, etc.
  - Peripheral
    - In hysteria; hurried breathing; etc.
    - In heart disease, cardiac asthma.
    - In gastric disease.
    - In gout, etc.
- Paralysis
  - Central ...
    - Respiration slow; congestion, producing pneumonia and bronchitis.
    - Poisoning by opium.
    - Apoplexy, etc.
  - Local ...
    - Cold shock, producing bronchitis, pneumonia, often without cough.
  - Peripheral
    - Patients dying of cancer of stomach, or of uterus, etc., of chronic gastric ulcer, etc., often have pneumonia, which is not due to septic changes.

A few words in reference to some of these conditions. With weakness of the system there is increased irritability of the nervous centres, and the centre of respiration is no exception to this rule. In continued fevers, as enteric or typhus, with increasing exhaustion the respiration becomes more hurried, and this is often an unfavourable sign; the lungs have become engorged with blood at the posterior and more depending parts; the power of the heart is lessened, and the nervous energy is becoming exhausted. In whooping-cough, to which we have previously referred, the principal symptoms are those connected with the throat, but it often happens that severe cough and bronchial complications follow, and in not a few cases emphysema. The mechanical pressure upon the delicate air-cells may have to do with this effect; but it must be remembered that the par vagum which supplies the larynx also supplies the lung. The nerve-power is lessened, and the nutrition of the lung-tissue interfered with, and this condition is favourable to the production of emphysema of the lung and its attendant circumstances. There can, I think, be no doubt that true spasmodic asthma may be due to disturbance of the origin of the pneumogastric as well as from peripheral irritation. In true spasmodic asthma it is remarkable with what suddenness and with what severity the symptoms may come on. The greatest distress of breathing may be produced almost at once, so that the patient is unable to move, but remains with the head thrown back, the eyes full and protruding, the muscles of forced respiration brought into violent exercise, and the countenance, becoming of a livid colour, is covered with profuse perspiration. The attack often comes on at night. If we listen at the chest, scarcely any air is heard to enter; but some sibilus may be detected; less and less air is aërated. The heart becomes feeble; the right side is distended, and but little passes to the left side,—so that the pulse is necessarily small. The bronchi are spasmodically contracted, and will not allow air to enter; the branches of the pneumogastric are in extreme irritability; the afferent nerves are intensely excited, and induce corresponding action in the efferent filaments; as, however, the centre becomes narcotised by the perfectly aërated blood, it relaxes its spasmodic grasp, and, in a quarter to half an hour, a little secretion takes place from the engorged vessels, a small quantity of mucus is discharged, more air gradually enters, and the paroxysm subsides. This state is a most painful one to witness, and is most distressing to the patient. It may be associated, in less severe degree, with diseases of the bronchi and with affections of the heart; but cardiac asthma and bronchitic asthma are very different in regard to the suddenness of the attack, and the previous absence of symptoms of organic disease. Various means may be used to quiet this intense spasm, and the most serviceable are the bromide of potassium with the juice of the conium, lobelia and ether, hydrocyanic acid, and stramonium, and narcotics in varied forms; but upon these, and also the means by which the paroxysms may be averted, I must refrain from dwelling.

(To be continued.)

ABSTRACT OF

THE CROONIAN LECTURES

ON

THE PATHOLOGY AND RELATIONS OF ALBUMINURIA.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By W. HOWSHIP DICKINSON, M.D. Cantab., F.R.C.P.,
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Lecture II.

The alterations in the structure and tension of the arteries which, in my last lecture, I described as belonging to the granular degeneration of the kidney, supply the key to some of the more important secondary lesions which attend the disease. First, as most obviously associated with them, may be placed the retinal disorder, whether exudative or hæmorrhagic, which is so closely connected with the granular kidney, that if "albuminuric retinitis" be recognised with the ophthalmoscope, this type of renal disease may with but a small percentage of error be assumed to exist. But that the association is not invariable has been shown by the examples—rare though they be—in which the condition has been linked with the white smooth kidney of diffuse nephritis.

There is a transient blindness which comes on sometimes with other signs of uræmia in any condition from which uræmia can spring. This has been well described by Dr. Clifford Allbutt in his work upon the ophthalmoscope, in which he teaches us to look upon the retina not only as part of the machinery of sight, but as displaying upon its mirror, as if by some process of natural magic, the diseases of concealed structures and remote organs.

This form of uræmic blindness, connected possibly with a toxic embarrassment of the intracranial organs of vision, gives no sign of which the ophthalmoscope can take note; nor has it any especial connexion with the type of renal disease under consideration. Dealing only with visible and retinal changes, these are complicated by hyperæmia, serous infiltration, hæmorrhage, and, sooner or later, striking white spots, in regard to which there is some difference of opinion as to how far they are the mere records of past hæmorrhages, and how far they are the independent results of degeneration of tissue. These injuries are variously intermixed; they all originate alike in arterial leakage, whether from the increased blood-pressure, or from the deterioration and abnormal perviousness of vessel which are constantly present with the form of renal disease under consideration. Of these changes, which are conveniently spoken of together as *albuminuric retinitis*, the hæmorrhagic patches and white spots when together are characteristic. They are but the visible signs of a disorder which is as wide as the arterial system, involving not only conditions of arterial distension and degeneration, but almost as surely of cardiac hypertrophy and renal failure. This optic state is of great interest clinically. It must generally be accepted as evidence of advanced disease, though often of disease which as yet has had no result in dropsy, or given any other intimation of its existence which is understanded of the vulgar; but has crept on in the subterranean fashion belonging to the granular kidney, and not struck the surface until after a long course it has reached the retina. Perhaps the most rapid form of renal disease which is apt to be thus accompanied, is the albuminuria of pregnancy; this, leading

as it does to granulation, is more liable perhaps than any other form of albuminuria to acquire the retinal complication.

It would be of interest, were it practicable, to state how frequent are the exceptions to the general rule that retinal hæmorrhage denotes renal granulation; the rule is supported by hundreds, where the exceptions are counted by units. But they are enough to show that there is no necessary pathological connexion or identity of kind between albuminuric retinitis and the granular or cirrhotic kidney, but that the retinal is only an expression of a state which, though most frequent with this form of renal disease, is not peculiar to it. The later stages of both the nephritic and the lardaceous kidney may be thus accompanied.

And in other organs and by other modes the same hæmorrhagic bias is evinced; most importantly within the brain. The very frequent concurrence of the granular kidney with sanguineous apoplexy is too familiar to need assertion in this place. With a ventricle of abnormal strength, arteries full to repletion, and at the same time weakened by the process of fatty destruction which so often ensues upon or goes with the other albuminuric changes, it is little to be wondered at that they should not only leak but rend. At least two-thirds of the instances of extravasation within the cranium which are fatal in London are accompanied with the form of renal disease under consideration. A striking fact—one which shows how directly the hæmorrhagic is connected with the renal mischief—is the occasional occurrence of cerebral extravasation even in childhood, where the kidneys are granular. An instance will be presently mentioned, in which a child of twelve died from a large cerebral hæmorrhage of renal origin; and I believe that most of the instances of the apoplexy of early life, when not embolic, are of this nature. Discharge of blood in less injurious modes under the skin, or from free surfaces, also marks the course of the disorder. This occurs, though infrequently, from the stomach, the lung, or bronchial membrane, and from the uterus. From the nasal cavities it happens often, insomuch that severe or repeated epistaxis in middle or advancing life must always raise a suspicion of renal fibrosis.

To complete the catalogue of secondary lesions which follow in the wake of granular degeneration, we pass from the hæmorrhagic, which are the especial property of the disorder, to the inflammatory; which, though far less frequent on the whole than with the more rapid forms of renal disease, have yet, as touching some structures, especial association with it. In this regard pericarditis stands first. In a series of cases, about a fourth—sixteen in sixty-eight—displayed this lesion in a recent state on post-mortem examination. The inflammation is generally confined to the outside of the heart; and, though much less declared in its symptoms and far less often accompanied with considerable serous effusion than is the pericarditis of rheumatism, it is as generally fatal, as the rheumatic form is usually free, from immediate danger.

Inflammations of the respiratory organs occur with the chronic as with more acute disorder; bronchitis, as proper to advancing years, and as often associated with gout, is more common with the former as seven to four. On the other hand, pneumonia, pleurisy, and, it may be added, peritonitis, are none of them half as frequent with the granular as with the smooth kidney. As to a more rare complication of the complaint—if, indeed, it is to be regarded in this light—is a condition of ulceration of the lower end of the small bowel, unconnected either with typhoid or tubercle, and not to be accounted for otherwise than by supposing it related in some manner to the renal disease. This condition has come under my notice but in two instances, one of which I shall presently relate in detail. The ulcers in both had nearly penetrated the bowel and set up localised peritonitis. The condition was like that of dysentery save in its situation. It was attended in both patients with vomiting, distressing and persistent beyond the wont of simple uræmia, and with intestinal or colicky pain, and abdominal tenderness.

As bearing upon the morbid associations of the granular kidney, I shall relate two of those rare instanees of the diseaso of which children are the subjects. Their necessary freedom from the deteriorations of age, and in the general simplicity of their diseases, patients of this class are especially useful, as sources of information upon matters which are liable to gather complications as years advance and morbid and senile changes accumulate.

Charles D., aged fourteen, a boy, with a wizened face and a parchment skin, applied at the ophthalmic department of St. George's Hospital in consequence of a failure of sight; and was thence remitted to medical care. For three years he had suffered from headache and vomiting, symptoms which had been formerly supposed to depend upon a tumour in the brain. His complexion, however—the characteristic *pallor luteus*—and the absence of paralysis, or lateral inequality of muscular action, led to a suspicion of renal disease, which was verified by finding the urine excessive, pale, of low specific gravity, and with a trace of albumen. There was no dropsy, nor ever had there been. It was ascertained that the boy had had weak health since he was crushed for stone at the age of three. The cardiac dulness was increased. Not to follow the particulars of his illness—the only peculiarity of which was abdominal pain, attributed by the boy himself (he had served a butcher) to "a twisting of the guts," and attended with much nausea and vomiting,—he died after an attack of convulsions.

The kidneys were both covered with well-marked hemispherical granulations, but in size they presented much inequality, the left weighing three ounces and a half, the right but seven drachms. The pelvis of the smaller, together with the upper part of the ureter, was dilated as if by a bygone obstruction. Microscopically, the characters of both were the same; masses of shrunk or compressed tubes embedded in a copious formation of interstitial fibroid tissue, penetrated in masses wedgewise from the surface. The left ventricle of the heart was enormously hypertrophied, its walls nearly one inch in thickness; while the interior was practically healthy, only a few specks of atheroma testifying to the contrary. The arteries of the pia mater were greatly thickened both in their muscular and fibrous walls, dotted with oil and irregular in contour. To complete the morbid appearances, it must be added that the lower two feet of the small bowel were deeply excavated by the peculiar ulcers of which I have spoken, neither tuberculous nor typhoid, generally linear, following the valvulæ conniventes around the intestine. A small quantity of semi-purulent fluid was found in the peritoneal cavity.

I will pass from this case without remark to the next. Emily T. died at the age of twelve, at the Hospital for Sick Children. She had long been subject to attacks of headache and vomiting. For one of these more than ordinarily severe she was admitted. She had walked from her home to the hospital, and upstairs to bed. In the evening she was noticed to be in a condition of much excitement, crying and throwing herself about. In the early morning attention was drawn to her cadaverous pallor; the breathing was irregular, the action of the heart tumultuous. Upon this, she rapidly became comatose, and in half an hour was dead.

The kidneys were unequal in size, the left weighing two ounces, the right but half an ounce. The capsules of both were adherent, the surfaces roughened, and uneven though not definitely granular. The cortices were atrophied, the pelves of size more than due to the atrophied glands, though not positively dilated. The mass of both kidneys largely consisted of a profuse growth of nuclear fibroid tissue in inseparable connexion with the matrix of the organ, of which, indeed, it was but an exaggeration. The new tissue was often seen in stellate masses lying at the junction of several tubes, and insinuating its processes between them. The arteries were in close relation to this nuclear formation, and were generally thickened. Where the growth existed in bulk, it had acquired to itself a regular system of capillaries, which, though of inappreciable thickness, could be easily traced by the blood-corpuscles within them. The tubes were variously separated, compressed to threads, and irregularly dilated. It is to be observed that, with the granular degeneration of childhood, the disease is more rapid and characteristic, the new growth more abundant, more active, and more encroaching, than when the subjects of the disease are older. The active nutrition of youth is imparted also to its diseases. In this instance, the condition of the renal cirrhosis, as it has been termed, were displayed with an almost diagrammatic point; and the associated changes were equally declared. The heart weighed eight ounces and a half; the left ventricle was enormously hypertrophied, the valves natural. The arteries of the pia mater were most irregular in contour, those above the smallest thickened in both coats; others smaller, nearly transformed by fatty degeneration.

A recent clot as large as a goose's egg was found in the posterior lobe of the left hemisphere; it reached from the superficial pia mater to the outer wall of the lateral ventricle, both of which had been slightly torn.

To these instructive instances of what may be termed precocious granular degeneration, I might add two others, one in a boy of eleven, in whom the disease had succeeded upon scarlatina; one in a girl of five years and eleven months, the earliest instance I have seen, whose organs I was enabled to examine by the kindness of Dr. Barlow of Manchester. In both cases, the kidneys were in a state of characteristic granular contraction, with much-thickened arteries; in both there existed cardiac hypertrophy, and in the boy, in addition, extensive retinal hæmorrhage.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

NOTES ON PROGRESS IN THE

DIAGNOSIS AND TREATMENT OF OVARIAN TUMOURS.

WHAT REMAINS STILL TO BE DONE?(a)

By J. KNOWSLEY THORNTON, M.B., C.M.,
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My original intention was to have briefly reviewed in this paper the progress in the diagnosis and treatment of ovarian tumours since ovariotomy received generally a recognised place among our surgical procedures. I fix the date of this occurrence as February, 1859, when Mr. Wells read an account of his first five cases before the Medico-Chirurgical Society, and I do so on the authority of a distinguished American ovariotomist, whose opinion on this subject may be received in this country as free from personal feeling. Peaslee, in his work on Ovarian Tumours, says, "This paper had a very great influence upon the opinion of the profession in England and elsewhere; and especially in London, where all opposition to the operation was soon after silenced, and by 1860 ovariotomy was adopted throughout England."

When I began to look over the notes I had been collecting with this idea, I found it was a task altogether beyond the limits of the space at my command; and I have therefore called my communication "Notes," and I make no profession of dealing with all the parts of this most interesting subject, but merely with certain items of it which have appeared to me to be of special interest. In order to give some sort of shape to my paper, I shall begin by noticing special points in the diagnosis of ovarian tumours, and then pass on to a brief consideration of their treatment, concluding with an attempt to indicate directions in which it is still possible to improve our methods of diagnosis and treatment, with hope of still further lessening the mortality among women suffering from this terrible disease.

When a patient supposed to have ovarian tumour presents herself, our first step is naturally to make a physical examination, and I think the only safe way of conducting this is to work up to our diagnosis by excluding, one by one, other possible diseases. Having thus satisfied ourselves that she is not the subject of ascites, uterine, renal, or other abdominal tumour, we may conclude it is ovarian; and then come the important questions—Is it a unilocular or multilocular cyst? Is it chiefly fluid or solid? Is it simple or malignant? And finally, are its connexions with other pelvic or abdominal organs such as to render its removal by ovariotomy easy, difficult, or impossible?

It is not my intention now to enter fully into the question of diagnosis and differential diagnosis; this has already been done much better than I could do it in the works of Wells, Peaslee, Atlee, and others. I wish to point out what appear to me the greatest difficulties in arriving at a correct diagnosis in certain special cases, together with some means at our disposal for surmounting those difficulties. Before proceeding further, I may, however, say that I believe there are, and always will be, some few cases which defy a correct diagnosis, even when all the best resources of our science are brought to bear upon them, though I believe these cases are becoming rarer and rarer, and will eventually altogether disappear as our knowledge becomes more perfect. I wish I could think that the same remark might be made about the important question as to the connexion of the tumour with other organs. Of course much may be made out on this point with tolerable certainty—and doubtless increased experience will aid us here also,—but I am convinced that there will always be cases which will defy the diagnostic skill of the most accomplished surgeon, and leave him, if he determine on ovariotomy, to face unknown dangers and difficulties, which may require all his skill and all his coolness; and I think, in giving a prognosis as to the result of operation, we do well to keep in mind the words of Hunter, though they were spoken in very different times from our own:—"Could we know beforehand that the circumstances would admit of such treatment." The following advice given by Peaslee, the distinguished American ovariotomist, seems to me so good that I will read it. He says, when speaking of ovariotomy—

"If performed in a case which is uncomplicated, this is one of the most simple of surgical operations. On the other hand, if complicated in a high degree, it is the most difficult and most formidable operation the surgeon ever attempts. And not even the most experienced operator can certainly determine beforehand whether he has a simple or complicated case. When he had expected no difficulty at all, he may find a condition of things which will require all his coolness, deliberation, and caution to enable him to get through without leaving his patient dead upon the table. I can say that ovariotomy sometimes demands more of all these qualities, and more care and judgment in the subsequent treatment, than any other I have ever attempted, though during the seventeen years of my professional life I have frequently performed all the capital operations. This peculiarity, however, has not been sufficiently recognised. Encouraged by the facility of operation, and the frequent successes of the most favourable cases, many a physician has attempted ovariotomy who would never think of attempting any other surgical procedure—not even the amputation of a finger. The results have been as might have been anticipated: the first case of real difficulty, or perhaps the second, terminating alike the operator's zeal and his success."

The two conditions which we are most often called to distinguish from ovarian cyst are ascites, with or without abdominal tumour, and uterine tumour, or a combination of these, as when a uterine tumour is surrounded by ascitic fluid. The rules laid down in our standard works on ovarian disease and the diseases of women are, as a rule, sufficient to enable us to distinguish at once between ascites and ovarian cyst, and yet the confounding of these two conditions is the mistake which is most common in the profession at large.

This mistake I think would never be made, if those who first see a case as to which they have any doubt would thoroughly satisfy themselves at once if it is one of cyst or ascites, not only by careful examination, but, if necessary, by tapping and examination of the fluid obtained and of the patient afterwards. I am now referring to the early stages of the disease, when the patient first seeks medical aid, for in later stages—after one or more tappings, followed by some inflammatory action and adhesions between neighbouring organs in the abdomen, or between the tumour (if one be really present) and these organs—it is often by no means an easy matter to decide whether the case is one of ascites or ovarian cyst (*i.e.*, without recourse to another tapping, etc.), and a confidently given history of one or more tappings of ovarian fluid is sure to help to mislead one in a case of any doubt. I will briefly relate the particulars of a case of this kind lately under my care in the Samaritan Hospital.

A florid, healthy-looking woman, aged fifty-nine, came under my care in March of this year. She told me she had noticed increase of size for three or four years, and had been twice tapped in the last nine months. To her own history thus briefly recorded her medical attendant gave a distinct opinion that on these two occasions he had tapped an ovarian tumour. Careful examination after admission seemed to confirm his diagnosis. The abdomen was most distended just above the pubes, up to and a little above the umbilicus; it was dull in front and comparatively resonant in both flanks when the patient was lying on her back; fluctuation was very distinct; the uterus was pushed forwards and somewhat to the left, and its mobility somewhat impaired,—its cavity measured two inches and a half. There was no distinct pelvic tumour. There was history of solid or semi-solid rounded mass in right side, left after the first tapping, and larger after the second,—just what one so often sees in a multilocular ovarian tumour after tapping. Here, then, seemed a good ovarian case for operation, but there were some doubtful points rendering the

(a) Read before the Harveian Society of London, April 20, 1876.

diagnosis by exclusion by no means perfect. The dulness seemed to vary its position somewhat with changes in that of the patient,—but then so it does in ovarian cysts, if the cyst is large and flaccid, and examined before it has had time to become tense after tapping; the fluctuation-wave extended beyond the dull area,—but so it often does in ovarian cases, when there is a thin layer of peritoneal fluid present between the cyst and abdominal wall; the percussion-note was dull over both lumbar regions when the patient sat up in bed,—so it often is in cases of ovarian tumour, though it is difficult to explain exactly why; by vaginal examination one found the os as a mere button-like projection on the vaginal vault, which was soft and flabby, but no distinct sense of fluctuation was communicated to the examining finger when the abdomen was percussed—*i.e.*, there was no positive indication of fluid in Douglas's pouch. Nothing, then, to make us certain as to the fluid being free or encysted, but a balance of probabilities in favour of ovarian cyst. Such was the diagnosis arrived at after consultation with several—among them some whose opinion on such a case would be received anywhere in the world with confidence. Fortified by such advice, but with some misgivings, I proceeded to operate, and, on cutting through a thickened peritoneum, saw a dark red peritoneal fluid escaping, which convinced me my fears were realised. Having gone so far, however, I thought it better to see what the real state of things was, and found a large semi-solid tumour involving both ovaries, but chiefly the right—*i.e.*, the largest mass sprang from the right side; the two masses united behind the uterus, which was of normal size, and comparatively free; the posterior wall of the bladder intimately connected with the mass on the right side, and the intestines connected by close adhesions (probably infiltration) with both masses, and so tied down at the sides and behind the tumours, and in this position causing the comparatively clear percussion when the patient lay on her back. The parietal and visceral peritoneum was also covered with papillary or villous growths, some of considerable size. I sponged out all the fluid, and at once closed the wound, and the patient suffered little more than she would have done from an ordinary tapping, and has gone home.

It would seem, then, that this was an unavoidable case of exploratory incision. Certainly not. Tapping, and examination of the fluid by the microscope, would at once have warned one that it was a case of malignant disease, even supposing the physical examination, after removal of the peritoneal fluid, had not convinced one that it was peritoneal fluid, and that there was also a tumour, of which the removal was not advisable or possible. I shall have more to say on the question of examination of the fluids. At present I wish to direct especial attention to the condition of the os and cervix in this case; for I think it is one which has not been noticed, and yet that it is of much importance in difficult cases where we have to make a differential diagnosis between ovarian cyst and partially encysted peritoneal fluid. I have noticed it now in three cases; in each it was sufficiently marked to attract my attention, and in each it would have saved an exploratory incision, if properly understood—in the case I have related, to myself, and in the other two, to others. When I remarked it in my own case, the answer I received from two of the gentlemen who saw the case with me in consultation was, that it was only the atrophic cervix of an old woman; but then the uterine cavity was of normal size—two inches and a half—as it had been in the two other cases in which this condition had attracted my attention. It is a difficult condition to describe, but one very characteristic when once felt, giving the impression that the cervix is retracted and almost buried in the vaginal vault. I would never consent to an operation without exploratory tapping, and careful examination of the fluid and of the patient after tapping, in any case in which I found this condition in future.

I do not think there is anything new to report as an aid in the differential diagnosis of uterine, fibroid, and ovarian tumour. In most cases it is not a difficult matter to distinguish between them, but there are soft fibroids, especially when attached to the uterus by a fair pedicle, which it is almost impossible to distinguish from an ovarian tumour by any physical examination. Such a case was under my care in the Samaritan Hospital some months back, after having been a subject of much interest and doubt at one of our largest London hospitals, and she went home, after Mr. Wells and others had seen her with me in consultation, without our being able to come to any unanimous opinion except in advising her to wait as long as possible before submitting to any operation for radical cure. She is still, I hear, in much the same condition as when in hospital some months ago. I have had no experience of fibro-cystic tumours of the uterus, and I will, therefore, pass them by, along with some of the rarer forms of abdominal tumour which may simulate ovarian cyst, merely remarking that I think a careful use of such special methods of examination as we possess in the exploring needle, aspirator, etc., ought to be able to save us from error in such cases.

(*To be continued.*)

CLIMACTERIC HYSTERIA IN A PATIENT APHASIC FOR TWENTY YEARS.

By H. SUTHERLAND, M.D., M.R.C.P.,
Lecturer on Insanity at the Westminster Hospital; Physician to the St. George's (Hanover-square) Dispensary.

H. F., aged fifty-two, gave the following history of her case:—Twenty years ago she had an attack of apoplexy, after which the muscles of deglutition and speech were partially affected. There was no feebleness or loss of sensation in any other part of the body. The patient had been perfectly healthy up to the time of observation, with the exception of being unable to articulate certain words and to swallow freely. She married when aged forty-one, and at forty-two she had a child, who is now alive and well. After this she had three miscarriages, but they were not followed by any bad consequences. Six months ago, when aged fifty-one, she arrived at the change of life, and since that time she has become more and more hysterical. She complains of pains all over; she is very nervous; blushes much; has weeping, watery eyes; pulse feeble, 124; and she is much debilitated.

The most curious part of the case, however, was found in her extraordinary mispronunciation of consonants. In "Bain's English Composition" we find that *b*, *p*, *f* and *v* are considered difficult letters to pronounce, and also *t*, *k*, *h*, and *d*. This patient failed in the first four mentioned letters, and repeated words beginning with every letter of the alphabet with the following results:—

Doctor: Apple. *Patient:* Attle.—*D.* Back. *P.* Dack.—*D.* Dove. *P.* Dothe.—*D.* Friend. *P.* Thriend.—*D.* Kitchen. *P.* Kithen.—*D.* Lamb. *P.* Land.—*D.* Manna. *P.* Nanna.—*D.* Make. *P.* Nake.—*D.* Open. *P.* Oten.—*D.* Papa. *P.* Tata.—*D.* Pain. *P.* Tain.

All the other letters were pronounced correctly. The case is somewhat curious. Partial paralysis had existed for twenty years, yet the general health was not affected, although the patient married late in life, had a child, and miscarried. But on the arrival of the climacteric, hysteria was developed.

The patient was treated with bromide of potassium and iron, and made a rapid recovery from her hysterical condition, but the speech and deglutition were permanently affected.

The case illustrates a point mentioned, if we remember rightly, by Dr. Barnes—that frequently nervous and mental symptoms appear at the climacteric, although a patient may have passed unscathed through the ordeal of child-bearing.

Académie des Sciences.—The celebrated Professor Ernst v. Baer, of St. Petersburg, the father of developmental anatomy, has just been elected a Foreign Associate in the place of the late Sir Charles Wheatstone. Prof. v. Baer has been a corresponding member of the Academy, in the Section of Anatomy and Zoology, since 1858.

Jaborandi in Pleuritic Effusions.—On the strength of five cases, Dr. Grasset, of Montpellier, comes to the following conclusions:—1. Jaborandi is very useful in the treatment of pleuritic effusions, whatever may be their date and the amount of the fluid. 2. It usually causes a rapid disappearance of the liquid, and the production of the pleural friction-sounds. 3. The effects of the jaborandi are of short duration, so that the liquid is often reproduced with great rapidity: it must then be persevered with, and usually the definitive disappearance of the liquid will be obtained. 4. But when this disappearance has been attained, and the pleural friction-sounds appear, the jaborandi becomes entirely inefficacious. In order to complete the cure we should usually then have recourse to a tonic treatment, and sometimes to local applications—as, *e.g.*, to the tincture of iodine.—*Journal de Thérapeutique*, April 10.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES OF CHOREA.

(*Continued from page* 466.)

Case 6.—*General Chorea—Treated as an In-Patient for six weeks—Cured.*

(Under the care of Dr. CAYLEY.)

E. P., FEMALE, aged nine years, was admitted an an in-patient under the care of Dr. Cayley on May 13, 1873.

Patient is suffering from general chorea, which came on suddenly twelve days ago, and has been getting worse daily. Is now unable to walk without assistance, and the hands are almost powerless. Had small-pox three years ago; not had rheumatism.

Ordered to be kept in bed and put on meat diet; also to take three minims of Fowler's solution thrice daily. At the end of a fortnight the patient was able to get up and walk about the ward, and at the end of six weeks she was discharged from the hospital quite well.

Case 7.—*Bilateral Chorea—Treated as an Out-Patient for ten weeks—Cured Temporarily—Subsequent Attack—Treated as an In-Patient for four weeks—Cured.*

(Under the care of Dr. BATHURST WOODMAN.)

A. B., female, aged ten years and a half, was admitted as an out-patient under the care of Dr. Woodman on June 16, 1873.

This is the second attack of chorea from which the patient has suffered. The present illness began fourteen days ago. The movements are bilateral, chiefly affecting the arms, but there are occasional twitchings of the muscles of the face. No history of fright or of rheumatic fever. There is a systolic hæmic murmur heard over the heart's apex. At first three minims of Fowler's solution were given three times a day. This was continued for a week, when the child was reported to be worse. A mixture containing five grains of citrate of iron and ammonia was then given thrice daily, under which the patient slowly improved, and she was discharged cured on August 27. This patient had a third attack in the following summer, when she was admitted as an in-patient, and treated with five-minim doses of Fowler's solution. She remained under treatment, on this occasion, four weeks, when she was sufficiently recovered to be sent to the Convalescent Home at Croydon.

Case 8.—*Bilateral Chorea—Treated as an Out-Patient for eleven weeks—Cured.*

(Under the care of Dr. CAYLEY.)

H. H., female, aged eleven years, was admitted as an out-patient under the care of Dr. Cayley on July 18, 1873.

Patient has suffered from chorea for six weeks. The movements are bilateral, the arms being chiefly affected. Is able to walk without assistance. She frequently cries out with pain of the head. No cardiac murmur audible. Has not had rheumatism. Appetite good. There are occasional twitchings of the muscles of the face. Speech is unaffected.

Three minims of Fowler's solution were given three times a day, and continued regularly for eleven weeks, by which time the choreic movements had entirely ceased, and the patient was discharged cured.

Case 9.—*Bilateral Chorea—Treated as an In-Patient for nine weeks—Cured.*

(Under the care of Dr. BATHURST WOODMAN.)

E. H., female, aged nine years, was admitted as an in-patient under the care of Dr. Woodman on August 13, 1873.

Patient has been deaf from birth, and can only speak a few simple words. Suffers from otorrhœa, which has existed ever since she was a few days old.

Chorea was first observed three weeks before admission. Both arms and hands are affected, and there are frequent twitchings of the muscles of the face. There is no cardiac murmur.

Patient was kept in bed during the greater portion of her time, and allowed full diet, meat once daily. At first the only medicine administered was steel wine, two drachms three times a day. This was continued until October 2, when the medicine was changed to one minim of Fowler's solution three times a day. The patient improved slowly, and was discharged, cured, on October 17.

Case 10.—*General Chorea—Treated Unsuccessfully as an Out-Patient for six weeks—Cured after three weeks' treatment as an In-Patient.*

(Under the care of Dr. CAYLEY.)

E. B., female, aged ten years, was admitted as an out-patient under the care of Dr. Cayley on September 12, 1873.

The present is the third attack of chorea from which the patient has suffered within eighteen months. No history of rheumatic fever or any other disease.

The present attack began ten days ago; the body is affected generally, but only slightly. Can walk without assistance, and has fairly good grasping power of the hands. There is a loud systolic murmur audible over the apex of the heart.

The patient was ordered two-minim doses of Fowler's solution three times a day. No improvement followed, and as, at the end of six weeks, the choreic movements were much aggravated, she was admitted as an in-patient. The same medicinal treatment was continued, combined with rest and good diet. The patient began to improve immediately, and in three weeks she was discharged quite well.

Case 11.—*Unilateral Chorea—Treated Unsuccessfully as an Out-Patient—Cured after three weeks' treatment as an In-Patient.*

(Under the care of Dr. SANSOM.)

W. J., male, aged eight years, was admitted as an in-patient under the care of Dr. Sansom on December 10, 1873. Had been treated as an out-patient from November 17 to December 10, but without any apparent improvement. Has suffered from chorea for three years. The movements are confined to the right side of the body. Muscular power of right hand is lost. Had several severe fits five years ago, and has not been well since. No cardiac murmur audible. Does not sleep well. Ordered rest and full diet. Also to take three minims of Fowler's solution three times a day, and half a grain of extract of belladonna in solution each night.

December 13.—Is much better. The muscles are now fairly under control. Has recovered in a great measure the use of the right hand.

26th.—Has improved steadily during the last two weeks, and has quite lost the choreic movements.

He was now sent to the Convalescent Home at Croydon, from which he returned quite well on January 1, 1874.

(*To be continued.*)

THE Court of Common Council has just voted a donation of two hundred guineas towards the enlargement of the Royal Infirmary for Children and Women in the Waterloo-road.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN APRIL.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	19·26	0·082	0·090	0·001	14·3	3·3
West Middlesex	19·93	0·053	0·095	0·001	14·3	3·3
Southwark & Vauxhall	19·35	0·107	0·105	0·005	14·3	3·3
Chelsea	19·45	0·103	0·090	0·002	14·3	3·3
Lambeth	19·67	0·071	0·120	0·001	14·3	3·3
Other Companies.						
Kent	27·72	0·003	0·195	0·000	20·0	5·6
New River	19·87	0·017	0·107	0·000	14·0	3·0
East London	20·72	0·053	0·105	0·001	14·8	3·8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in the Grand Junction, Southwark and Vauxhall, Chelsea, and the Lambeth Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 111,319,741 gallons; and the number of houses supplied was 524,218. This is at the rate of 29·5 gallons per head of the population daily.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MAY 6, 1876.

THE NEW ARMY MEDICAL WARRANT.

The new Warrant for the Army Medical Department has at last been published, and we print it *in extenso* in another part of our present number. It came into our hands so late that we are not able to notice it at all fully this week, but a hasty glance at its clauses enables us at once to note a few points, in respect of which the new regulations will be regarded with great satisfaction.

Surgeons-General and Deputy Surgeons-General will in future receive immediately on appointment the full rank and other advantages of their positions. Hitherto Surgeons-General have had to serve three years' full-pay service ranking as Brigadier-Generals, and then only took rank as Major-Generals; now they will at once rank as Major-Generals. Similarly Deputy Surgeons-General will at once rank as full Colonels, instead of rank for three years as Lieutenant-Colonels only. All surgeons of twelve years' service will be promoted to the grade of Surgeon-Major. This has for some time, we believe, been the rule for Surgeons serving in her Majesty's Indian Army; and the assimilation of the two services on this point will give much satisfaction. The selection of the Surgeons to be retained in the Army Medical Department after ten years' service is to be made by the Commander-in-Chief on the recommendation of the Director-General; and the Surgeons so selected are not to exceed six in number each year. The compulsory retirement from service at the age of sixty is already known to be one of the provisions of the new Warrant. This will cause immediately and in the next two or three years a considerable number of promotions. Those who thus retire compulsorily will receive compensation for the loss of the additional years of service to which they were entitled by the superseded Warrant.

The last point we can now notice, and with much satisfaction, is that Surgeons are to be appointed on succeeding in passing a special examination, after they "have passed through a course of instruction at the Army Medical School at Netley in military medicine, surgery, hygiene, and pathology." This may be taken, we must suppose, as full proof that there is no intention to do away with that valuable School.

THE NEW REMEDIES IN FEVER.

No. II.

We have reserved to this article all mention of experiments on animals with salicylic acid and salicylate of soda, in order not to run the risk of any possible fallacy in placing side by side the results of clinical and physiological research.

None the less important, however, are the results of such an investigation, for which science is indebted to Professor Köhler, of Halle.(a) In the first place he shows that both salicylic acid and salicylate of soda, when injected into the blood in rabbits, not only cause a fall in the blood-pressure, but also a marked diminution in the frequency of the pulse, and also in that of the respirations; but that whereas the soda-salt acts equally well, whether injected into the jugular vein or into the stomach, the salicylic acid in aqueous solution (1 in 300) has no effect, when given by the stomach, either in reducing the blood-pressure or retarding the pulse. It is, therefore, according to Köhler, almost certain that salicylic acid becomes converted into its soda-salt by combination with the alkali present in the intestinal secretions, and that it is absorbed into the blood and produces its physiological action in this form. The reason why a solution of the acid injected into the stomach of a rabbit remains inactive is, probably, that it is unable to combine with sufficient alkali to supply an effective dose of salicylate of soda. According to the physiologist, therefore, salicylate of soda is preferable to salicylic acid as a drug, because its action is direct, whilst that of the latter is indirect; and it is further preferable, because it possesses all the useful properties of the acid without its disadvantages; and—what especially interests us here—because it has a most distinct power of reducing the temperature of the body, not only in fever, but also in the healthy state. Thus 26 cubic centimetres of a solution of 1 in 30, injected into the stomach of a rabbit weighing two kilogrammes, reduced the temperature from 36·2° to 34·6°, and even to 34·0° C.; and the same quantity of a solution of 1 in 60 injected into the jugular vein reduced it to 35·2°. On the other hand, Professor Köhler, from his own observation of the effect o the salicylate (in one or two five-gramme doses) on patients with typhoid fever, completely agrees with those observers who have praised its anti-febrilo properties in that disease; and he states that the temperature can be reduced by it for twenty-four hours, or even longer. The fact that the salicylate, according to Köhler, reduces even the normal temperature, agrees with Riess's results in the healthy human subject; for the latter found that five grammes reduced the temperature 0·9° C. on an average of twenty-three experiments in from four to six hours. Comparing the other results of experiments on animals with the effects of the drug on man, we find that there is a discrepancy between the statements of observers—which, however, is perhaps more apparent than real; thus, whilst Riess and Goltdammer observed that the only effect of the drug on the pulse was to make it stronger, without diminishing its frequency, Nathan observed not only that the number of beats became much smaller, but he also found that the respirations fell almost to their normal number. He gave, however, much larger doses than the other two—as much as eight grammes at a time, followed sometimes in two hours by a second dose of four grammes; and as it was

(a) *Centralblatt Med. Wiss.*, 1876, Nos. 10 and 11.

after very large doses that Köhler found the pulse and respirations so much affected in rabbits, it seems likely that it may require similarly large doses in man to modify the functions of respiration and circulation.

All things considered, the salicylate of soda promises well as an anti-febrile remedy. Much less unpleasant to take than quinine, producing no irritation of the digestive organs or of the kidneys, and completely free from narcotic properties, time may not improbably confirm Professor Köhler's estimate of it, when he predicts for it the greatest future of any of our scanty stock of drugs which reduce the temperature of the body.

THE NORFOLK AND NORWICH HOSPITAL.

We are heartily glad to see, by the report of the recent annual meeting of this old and valuable institution, that the Committee are able to show a much better bill of health than they did a year or two ago. Mr. Cadge, than whom there is no better surgeon, spoke very strongly on this subject, and alluded to the important services rendered by the House-Surgeon and matron in reducing the former terrible mortality. In another speech, however—viz., Dr. Beverley's—we gather that there was something else to thank, and that was the use of a new addition to the Hospital in the shape of an old house in which most of the important surgical work of the year was done. A proposition was brought before the meeting to sanction certain additions to the old building: this we greatly regret. It would have been far better, and, we believe, in the end really cheaper, to do away with the old time-honoured institution—greatly though we should regret the disappearance of such a historic building,—and to erect a new one on the same or a different site. The general opinion of the profession gave forth no uncertain sound on this matter on the occasion of the meeting of the British Medical Association at Norwich two years ago, and we should have been glad that the idea of a totally new hospital on the most recent plan could have been carried out. To this, however, the Committee do not see their way, and they have committed themselves to a measure which, while giving a necessary enlargement to the Hospital, may yet be fraught with danger to its inmates. The addition of new buildings to an old hospital is always attended with risk, for the new are apt to get worse than the old, as far as regards hospital miasm. Dr. Beverley, who has devoted much time and attention to the subject, strongly urged the expediency of procuring the erection of a set of hospital buildings which should not exceed a single storey in height, and which would be occupied only from time to time, thus affording an opportunity of effectually cleansing the wards when unoccupied. No doubt this would be the ideal plan; but, in the meantime, opinion has been on the rebound from the high tension it was raised to by Sir James Simpson and other writers on hospitalism. The Norfolk and Norwich Hospital has long had a bad name as regards healthiness. There can be no doubt but that the scheme proposed by Dr. Beverley would have been better than that now adopted, but we fear we must make up our minds to the less comprehensive plan adopted by the general meeting of governors. This includes improved drainage and other schemes, as well as the erection of new buildings not directly connected with the old ones. We hope the result will be satisfactory.

THE WEEK.

TOPICS OF THE DAY.

An alarming outbreak of fever is reported to have occurred at the colliery village of Kingseat, in the West of Fife. For two weeks past fever has been busy amongst the inhabitants; but lately it has rapidly increased, and is daily increasing the number of victims. Nearly ninety cases are returned as under treatment, and the medical staff of the neighbourhood are seriously overtaxed in their efforts to render assistance. The epidemic is assigned to impure water supply, and an examination has been at once instituted. One sample of the water, which is brought from Loch Fittie, has been analysed and found good in quality; and further endeavours are being made to trace the cause of the outbreak.

The town of Reading was last week presented with a large piece of land, as an addition to the town recreation-ground, by Alderman Palmer, the head of the firm of Huntley and Palmers, the biscuit manufacturers. The recreation-ground is situate near the Great Western Railway, and the piece of land now presented by Alderman Palmer comprises upwards of thirteen acres, raising the total acreage of the ground to about twenty-six acres. A cordial vote of thanks was awarded to Mr. Palmer by the Corporation for this liberal and well-timed gift.

The Registrar-General has issued his return for the week ending the 22nd ult., from which it appears that in the period under question 2557 births and 1631 deaths were registered in London. Allowing for increase of population, the births exceeded by 147, and the deaths by 65, the average numbers in the corresponding week of the last ten years. The excess in these numbers was, in a great measure, due to the arrears of registration caused by the Easter holidays at the close of the previous week. The annual death-rate from all causes, which in the three preceding weeks had been equal to 25·4, 23·6, and 21·4, rose again last week to 24·4. The 1631 deaths included 59 from measles, 46 from scarlet fever, 9 from diphtheria, 98 from whooping-cough, 18 from different forms of fever, 17 from diarrhœa, and not one from small-pox. Whooping-cough continues epidemic, and the 98 fatal cases registered during the week exceeded the corrected weekly average by 25. The 18 deaths referred to fever corresponded with the number in the previous week, and were 19 below the corrected average; 4 were certified as typhus, 11 as enteric or typhoid, and 3 as simple continued fever. The deaths resulting from diseases of the respiratory organs, which in the three preceding weeks had been 415, 385, and 317 respectively, were last week 336, of which 186 were attributed to bronchitis, and 100 to pneumonia. These 336 deaths were 11 above the corrected average number in the corresponding week of the last ten years. Different forms of violence caused 43 deaths; 32 were the result of negligence or accident, including 13 from fractures and contusions, 2 from burns and scalds, 7 from drowning, and 7 of infants under one year of age from suffocation. Five of the deaths from fractures and contusions were caused by horses or vehicles in the street; from this class of accident 59 cases of injury and maiming came under the notice of the Metropolitan and City Police during the seven days ending the 22nd ult.

The barque *Nellie*, Captain Cone, arrived at Salcombe, Devon, last week, having been worked for the last thirty days by only five men. After leaving the Brazils, yellow fever broke out on board, and Captain Cone's son, with the mate and two seamen, died, the others being very ill. It is not stated that any steps have been taken by the local authorities, but it is to be hoped that all the necessary precautions will be taken at the small port where the vessel has put in.

The Guardians of Chorlton Union, Manchester, have been moved to inquire into the quality of the milk supplied to the workhouse. Dr. J. Campbell Brown, the county analyst, reports of the pale fluid supplied to the inmates of the Withington Workhouse, that it had been diluted by the addition of upwards of twenty-two parts of water to 100 parts of low average quality, or by the addition of fifteen parts of water to "100 parts of the poorest quality of milk ever yielded by half-starved cows." The guardians resolved that the contractor should be prosecuted. The conduct of the Chorley

Improvement Commissioners has been rather different. It was reported to them that the adulteration of milk was carried on in Chorley to a very serious extent, but they declined to order prosecutions to be instituted, on the ground that such a proceeding would be "rather harsh, inasmuch as it had been previously agreed that no action should be taken on the results of this first analysis."

Last week the Lord Lieutenant of Ireland laid the first stone of the new Museum of the College of Surgeons. The building, which will be situated in York-street, will be an extension of the main building in Stephen's-green. The proceedings opened with a procession of the licentiates, fellows, and president of the College, introducing the Lord Lieutenant and the Lord Mayor (who wore his robes of office). The President delivered a speech, in which he traced the history of the College, and its influence on the development of surgical science. The Lord Lieutenant then laid the first stone with the usual formalities, in the presence of an assemblage numbering about 400 persons.

We understand that Surgeon Valesius Skipton Gouldsbury, M.D., of the Army Medical Department, has just arrived in this country from the West Coast of Africa, where he has lately been employed in a diplomatic capacity, he having visited Coomassie, and completed arrangements for opening up trade with an important town in the interior. As some recognition of his services, her Majesty has been graciously pleased to give orders for Dr. Gouldsbury's appointment as Companion of the most distinguished Order of St. Michael and St. George. It seems not improbable that we may be compelled to enter into another "little war" on the West Coast, if the rumour should prove true that the King of Dahomey has refused to pay the fine imposed upon him, and has invited the authorities to come up to his capital and receive it in the shape of powder and bullets.

The chief inspector under the Alkali Acts of 1863 and 1874, Dr. Angus Smith, prepared some time since an anticipative report to the Local Government Board, describing his proceedings during the past year, and this has just been presented to Parliament. Dr. Smith's opinion of the success of these Acts is a very favourable one; he says that although the work of amelioration is not finished, it is well begun, being already advanced to a point which the most influential and best informed of the manufacturers declared to be impossible before the Acts were passed. The subject is no doubt a difficult one to deal with. The first cost of condensing apparatus is very great, though probably some portion is returned by the sale of recovered products. Besides the nuisance from muriatic acid and chlorine escaping as gas, the solid and liquid waste is also offensive and injurious; and it is annoying to find that the purification of the air from acids adds to the growing evil of sulphuretted hydrogen in the waste. Dr. Smith urges that all chemical works should be brought under the operation of the Acts, and adduces good reasons for such a course. It is also satisfactory to learn that, notwithstanding the great increase in industries which are offensive to the senses or dangerous to the public health, complaints from farmers are much less frequent than formerly; and Lord Derby's forester at Knowsley states that he considers the woods exposed to the smoke from St. Helen's looked better last year than they had done for the previous sixteen, adding at the same time an expression of his belief that all the woods on that side of Knowsley Park would have been swept away had it not been for the passing of the Alkali Acts,—an opinion which is general in the district.

From the return of the Sanitary Commissioner of the Punjaub for the week ending February 26 last, the total deaths registered were 5327, against 5203 in the previous week. There was only one death registered under the head of cholera; it occurred in the village of Janat, in the Haripur Police-station of the Kangra district. From small-pox 221 deaths were registered, against 196 in the previous week. The disease continues extremely fatal in the city of Lahore, the inhabitants of which have always shown themselves very averse to vaccination. Amritsar is now reaping the fruits of the efforts made by the Municipal Committee within the last two years to extend vaccination. Small-pox has established itself in that city, but it causes but few deaths, and the disease has in no single case proved fatal to a vaccinated child; the victims were in every case those whose parents had either wilfully or negligently omitted to have them vaccinated. The health of the large towns, with some exceptions, continues unusually good.

We regret to have to record the death of Mr. Richard Burdon-Sanderson, of Budle House, near Belford, Northumberland, which took place at the house of his brother, Dr. Burdon-Sanderson, Queen Anne-street, on the 30th ult. It will be remembered that Mr. Sanderson was seriously injured in the railway disaster which occurred at Abbot's Ripton a short time since, and through which calamity he lost his two daughters who were travelling with him. The calamitous death is also reported of Mr. John Rust, a surgeon, who was struck by lightning whilst driving at Toppersfield, near Clare, Suffolk, on Saturday last. Mr. Rust and his horse were killed instantaneously.

The plans for the reconstruction of the Cavalry Barracks at Knightsbridge, prepared by Mr. Wyatt, are now on view in the tea-room of the House of Commons. The front to the Knightsbridge-road is to be of red brick with stone dressings, and—report has it—looks the reverse of prepossessing. The "back front" facing the park will be a little more ornamental.

The following resolution was carried unanimously at the quarterly meeting of the Bradford Medico-Ethical Society, held on April 28 last:—"That the best thanks of this Society be given to Dr. Barnes, Dr. Farre, and Dr. Priestley for their manly determination in resigning their seats at the Board of Examiners for the Licence in Midwifery of the Royal College of Surgeons of England, rather than take any part in admitting to the Medical Register persons who are not also legally qualified in medicine or surgery."

THE IMPROVEMENT SCHEME IN HOLBORN.

By order of the Home Secretary, Mr. D. Cubitt Nichols held an inquiry at the Holborn District Board of Works, last week, for the purpose of reporting as to the exact condition of the dwellings in the various courts and alleys which are situated immediately to the east of Gray's-inn-road and to the north of Holborn, and the sufficiency of the improvement scheme provided by the Metropolitan Board of Works; and also to receive any local objections that may be made to the scheme. The area in question is one of the most densely populated in London, and contains upwards of 600 persons to each acre of ground. When Dr. Gibbon, the Medical Officer of Health for the district, first reported that the greater portion of the houses in the specified area were unfit for human habitation, the District Board of Works drew up a scheme which would have made a thorough clearance of 239 houses, at present inhabited by 3661 persons. The Metropolitan Board of Works, however, refused to adopt the scheme, and brought forward an amended one, by which it was proposed to pull down 99 houses only, giving shelter to 1611 persons. There being a very strong feeling, locally, that the amended scheme is altogether insufficient to meet the requirements of the district, the Home Secretary directed the present inquiry. The first witness examined by Mr. Nichols was Dr. Gibbon, whose evidence was confirmatory of his official reports as to the narrowness and closeness of the courts, the bad arrangement and wretched condition of the houses, the want of light, air, ventilation,

and proper conveniences in the dwellings, and the low state of health of the inhabitants. These were for the most part labourers, costermongers, a few printers and law-writers, women of bad character, flower-sellers, fruit-sellers, and fusee-sellers (or, in other words, beggars). As to the death-rate, Dr. Gibbon stated that for the whole Holborn district it was 22·3 per 1000, or 2·3 per 1000 higher than that for the whole metropolis. Adding the workhouse deaths and those in outside hospitals, of persons belonging to the district, the deaths amounted to 31 per 1000 per annum. This calculation was for the whole Holborn district, but for this particular area the proportion would be very much higher. Fifty per cent. of the children born in the district die under five years of age. His remarks and figures applied to the whole area comprised in the original scheme, and not as now diminished. The reduced scheme left out many of the worst courts, some of which were close *culs-de-sac*, with very narrow entrances and with no circulation of air. The Roman Catholic priest having the general superintendence of the district stated that the inhabitants of the condemned area were of the poorest class, and two-thirds of them were Irish. By the scheme of the Board of Works many of the worst parts would be pulled down, but other parts nearly as bad would remain. The proposed alterations were too limited in area, and the provisions for air and light insufficient. Anything, however, would be better than to leave things as they are. Another Roman Catholic priest gave evidence as to the inadequacy of the amended scheme. He was perfectly grieved when he saw the reduced scheme; it was turning back from a noble and magnificent undertaking. Other evidence was given to the effect that the amended scheme of the Board of Works was inadequate to meet the requirements of the district, whilst no attempt was made on the part of the Board to show the contrary. Why the Board should have thrown over a very excellent and complete scheme, and adopted one that deals only with a comparatively small portion of the unhealthy area is not at all clear. Something has been said as to the Board being nervous about interfering with propriety, but we cannot see how the desired good is to be effected in this and like instances if such a body as the Metropolitan Board of Works fears to incur some responsibility. It is to be observed, also, that several companies have shown themselves ready to hire the land for building artisans' dwellings so soon as it is cleared. We can only hope that the Home Secretary will bring his influence to bear upon the Board of Works with the object of inducing that body to carry out a perfect and complete scheme of improvement in the Holborn district.

THE GLACIARIUM, OR REAL ICE RINK.

On Saturday last a number of gentlemen and ladies were present at a private view of Mr. Gamgee's new and larger ice rink. It has an area of more than one hundred square yards, thus affording room and space enough for a considerable number of practised skaters to enjoy together their graceful and healthy art. It is generally known now that in Mr. Gamgee's ingeniously constructed Glaciarium the solid bed of ice is produced and maintained by the slow and constant circulation of a mixture of glycerine and water, of an extremely low temperature, in a series of flattened copper tubes, which are embedded in the ice; and the only change in the mode of production of the floor of ice in the new Glaciarium is that the glycerine solution is kept at a low temperature by means of liquid sulphurous acid instead of ether. The sulphurous acid is condensed under a pressure of an atmosphere and a half in the condenser, and allowed to expand at ordinary atmospheric pressure, or in a slight vacuum; and the change from the liquid to the gaseous state produces, as in the case of ether, intense cold. The ice formed is beautifully clear and transparent, and keeps this character well, as in the unskated-on parts of the rink, when we visited it on Saturday, the embedded copper tubes were distinctly visible. The walls of the hall are decorated with paintings representing Swiss glaciers and winter scenes; a platform runs along the two sides of the rink, and at each end is a gallery for visitors. The place is well lighted by windows and sun-burners, and ventilated by louvres; and, judging by the skating we saw, the quality of the ice leaves nothing to be desired. We, however, cannot agree with our contemporary the *Times* that "no sensation of cold is experienced on entering the hall, though the contrary might be anticipated from so large an area of crystalline ice." We must say that both we ourselves and some ladies who accompanied us did experience just what "might be anticipated,"—a very decided sensation of cold; so decided that we cannot but think that people will run some risk in visiting the rink as mere spectators. To those actually engaged in the exercise of skating there will be no danger from the coldness of the atmosphere; but we felt convinced, by our sense of cold during our visit, that, in the summer-time at any rate, those who go in from the warm outer air, and remain any time as spectators only, will run not a little danger to health: and this warning that we would give applies especially to ladies, who would go in light dresses and thin boots or shoes.

THE YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A meeting of the above Association was held last week at the office of Dr. Goldie, the Medical Officer of Health for Leeds. The president, Dr. North, of York, in opening the proceedings, said it would be in the recollection of those present that, in September last, he took upon himself the responsibility of inviting the whole of the medical officers of health of the county of York to meet at his house to consider the propriety of forming an association of the officers of health for the county. It seemed to him that the duties which they had to discharge were eminently responsible, and that it was desirable they should meet to consider their relations to the authorities who employed them, and the best manner in which they could discharge those duties with credit to the scientific interest they represented, and with advantage to the public. At that meeting it was resolved to form an Association of Medical Officers of Health. Another meeting was held at the Leeds Corn Exchange on October 27, when as many as twenty-seven gentlemen were present, and they concurred in the desirability of forming such an association. A code of rules had now been drawn up, and would be submitted for their consideration. It was incumbent on every medical officer of health to remember that, to some extent, in the discharge of his duty he had to put off his character as a pure and simple medical practitioner, but he had to carry with him his medical knowledge and apply it to the administration of public affairs in a way to which he had been unaccustomed. He had to consider what were the circumstances within his district which promoted ill-health, and what was the best method by which the conditions causing ill-health might be removed. He had to consider questions of economy, and how best to perform his duties without bringing himself into collision with those who had the administration of local affairs. When a medical officer began to dictate he departed from his proper sphere, and lessened his usefulness. He had to report what he believed to be the cause of ill-health within his district, and what he believed to be the best and most essential methods for its mitigation. When he had done that he had discharged his duty, and the responsibility of carrying out his suggestions rested upon the authorities whose adviser he was.

The rules which had been drawn up were then submitted to the meeting, and were adopted with a slight alteration. Dr. Parsons, of Goole, was appointed secretary; and after the reading of two papers, "On the Health of Harrogate," and on "Rural Water-Supply," the meeting broke up.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE most important business transacted at the meeting of the College of Physicians on Thursday, the 27th ult., was the election of new Fellows. The following Members had been nominated by the Council:—John Anthony, M.D., Birmingham; William Henry Paine, M.D., Stroud; John O'Brien Milner Barry, M.D., Tunbridge Wells; George Bernard Brodie, M.D., Curzon-street, W.; Frederic Bateman, M.D., Norwich; William Ainslie Hollis, M.D., Brighton; John Cavafy, M.D., Upper Berkeley-street, W.; William Bathurst Woodman, M.D., Christopher-street, E.C.; Thomas Lauder Brunton, M.D., Somerset-street, W.; and Isaac Burney Yeo, Hertford-street, W.;—and all these gentlemen had the happiness of being elected. The list is rather a small one, and one misses some names that might have been expected to appear in it. But we believe that more than one Member whom the Council were willing to nominate intimated a reluctance to accept the expensive honour of the Fellowship at present. Several Members were admitted, and a considerable number of licences granted, the lists of these gentlemen appearing elsewhere in our pages. The new by-law respecting the appointment of examiners in chemistry, materia medica, and practical pharmacy was enacted for the second time, and the following was enacted as a regulation of the College:—"That students who wish to qualify for the examination for the membership or licence of the College may substitute, if they so desire, a three months' course of clinical instruction in the wards of a lunatic asylum for the same period of attendance in the medical wards of a general hospital." Some communications addressed to the College were received, and the Treasurer made a report with reference to the Statue Fund. And all these matters occupied so much time that the most important item on the agenda paper, as regards the profession at large and the public—viz., the consideration of the amended scheme for a Conjoint Examining Board in England—had to be deferred to a future meeting of the College. We understand that the College will then also appoint a new representative in the General Medical Council, their present representative, Dr. Risdon Bennett, having, we understand, given in his resignation of that office, since his election as President of the College.

THE MEDICAL SOCIETY OF LONDON.

THE *conversazione* of the Medical Society of London was held in the rooms of the Society on Monday, the 1st inst., when, according to present custom, the Annual Oration was delivered. Mr. Erasmus Wilson was the Orator, and addressed a very numerous gathering of Fellows and visitors on "The Progress of Cutaneous Medicine during the Present Century." The address was a very interesting, and, it need not be added, a very able one, as Mr. Wilson is a master of the subject, and of all men one who has most especially helped its progress. His Oration was listened to with marked and appreciative attention, and was highly applauded. Numerous objects of interest in science and art were distributed about the rooms. Mr. John Browning exhibited under his Microspectroscopes the absorption-spectra of tinctures of hyoscyamus, digitalis, etc., the metallic spectra of antimony and bismuth; and Professor Crookes' Radiometers. Messrs. Tisley and Spiller showed a new form of Medical Battery; Messrs. Ross and Co. sent some new Microscopes on the Jackson model; and Messrs. Arnold and Son various Surgical Instruments. Messrs. Barraud and Jerrard supplied some admirable Photographs of Medical Men; the Autotype Company exhibited many beautiful Art Photographs and Sketches; and the Watcombe Company contributed several specimens of their excellent Terra-cotta Art manufactures. The President of the Society, Mr. W. Adams, exhibited a specimen of Jade taken from the Summer Palace of the Emperor of China, and an Arrow from the Sandwich Islands, attached to the head of which was "a portion of the leg-bone of the celebrated circumnavigator Captain Cook." Dr. Leared exhibited articles brought from Morocco; Mr. George Browning Icelandic Curiosities; and many other Fellows of the Society, such as Mr. Napier, Dr. Godson, Mr. Jabez Hogg, Mr. Clover, and Dr. Wills, contributed towards the evening's entertainment by the loan of objects of art, curiosities, and articles of interest.

ACCIDENTAL DEATH FROM POISONING AT ROCK FERRY.

A FATAL case of poisoning by cyanide of potassium, which was dispensed in mistake for acetate of potash, occurred at Rock Ferry, near Birkenhead, on Friday, April 22. A Mrs. Cambridge, aged thirty-six, not being well, consulted Dr. Laidlaw, who gave her a prescription, of which the main ingredient was acetate of potash. From the evidence given at the coroner's inquest it appears that the first dose of the mixture—a tablespoonful—was taken at nine o'clock on the following evening, and that, after an expression of surprise at its peculiar taste, the patient in the course of a minute or two fell back in a faint; that she then vomited and partially recovered, but that tetanic rigidity, with opisthotonus, quickly supervened; and that she died about half an hour after having taken the dose. By a post-mortem examination, conducted by Dr. Paton in the presence of Dr. Laidlaw, the odour of prussic acid was detected in the unrejected contents of the stomach, in the pericardium and pleuræ; and the presence of cyanide of potassium in the bottle from which the dose had been taken was determined by Dr. J. C. Brown, public analyst for Liverpool. An investigation into the cause of the accident showed that the chemist had dispensed the medicine out of a four-ounce bottle, which, though labelled "acetate of potash," contained only the cyanide of potassium. In his defence it was urged that the bottle as produced had been supplied to him by the wholesale chemist in 1874 for acetate of potash; that from his invoice the order of the acetate could be proved; and that he had never ordered any cyanide. On the part of the wholesale firm it was stated that the drug had been supplied to the dispensing chemist in the year named by a most trustworthy man who had been a long time in their employ; that it had been sent in the same condition as it was received from the makers; and that to them the mistake was inexplicable. But, after all possible explanations have been made, the painful fact remains that it has been proved to be possible for a chemist who has been years in business to be so little familiar with the characters of the drugs he dispenses as to mistake a strongly odorous substance like cyanide of potassium for an odourless one like acetate of potash, and that through this possibility death might be caused.

THE PREVENTION OF PAIN AFTER THE APPLICATION OF THE ACTUAL CAUTERY.

DR. R. J. LEVIS, Surgeon to the Pennsylvania Hospital, has communicated to the Philadelphia *Medical Times* of March 18 a short paper on this subject. The increasing use of the actual cautery as a powerful surgical resource will, he thinks, render important a means of avoiding the suffering which, for a varying time, follows its local application. The practice of using the actual cautery seems to be now reviving, under the influence of some high authorities, and perhaps with some newly developed views of its therapeutic action, especially with regard to its influence by peculiar impression on peripheral nerves. The local anæsthetic action of carbolic acid has been for some time recognised by surgeons; but no important practical applications appear to have been deduced, and its great powers in that direction seem not to have generally impressed the profession. Dr. Levis has been in the habit of taking advantage of this remarkable property of carbolic acid in his frequent resort to the actual cautery, with the result of the most complete avoidance of consequent suffering.

His practice is to apply *pure* carbolic acid on and for a short distance around each point of application of the cautery, before the patient recovers from the influence of the general anæsthetic which has been used. For convenience of application, the crystals of carbolic acid are deliquesced by warmth, and the liquid applied with a brush. The part is then covered with any light dressing. Should pain recur after extensive or deep use of the cautery, the application may be renewed; but Dr. Levis has not, in his experience, found that this is necessary.

THE LORD MAYOR ON THE FISTULA HOSPITAL.

Last week the Lord Mayor presided at the anniversary of St. Mark's Hospital for Fistula, and in the course of his after-dinner remarks said that this particular institution had to meet the wants of all the sufferers of a particular class to be found amongst the three millions and a half of London, and he was afraid that the provision was insufficient. It was now the fashion, he further said, to separate the treatment of diseases, so that while a few years ago all fell to the hands of the general physician, they were now treated by specialists—men who had thrown their heart into the treatment of some disease, and laboured for its cure. He therefore appealed for increased support in order to build a new and larger hospital on a more suitable site. Doubtless the Lord Mayor thoroughly believes that were it not for St. Mark's no one suffering from fistula would be able to obtain relief at a hospital; but we shall run no risk of being charged with going beyond the truth in saying that there is ample provision in the hospitals of the metropolis, even were there no St. Mark's, to accommodate and afford relief to all the suitable cases of fistula that may be found among the three and a half millions of London. It is, moreover, quite possible that the surgical skill brought to bear upon the cases would be almost, if not quite, equal to that which they would receive at St. Mark's, notwithstanding that the surgical staff of that institution "have thrown their heart" into the treatment of a special disease, and have "laboured for its cure."

ARTISANS' DWELLINGS IN DUBLIN.

The Committee appointed at the meeting of April 22 (of which a notice appeared in our columns last week) met for the first time last Saturday. The following resolution was unanimously adopted:—"That the Committee recommend the formation of a company, to be designated the Dublin Artisans' Industrial Dwellings Company (Limited), having for its object the procuring of suitable sites for the erection of appropriate dwellings, it being left open to the Company to acquire sites by private contract, by availing themselves of the Artisans' Dwellings Act of 1875, or otherwise, as may be expedient; and that the gentlemen named underneath be appointed as a Sub-Committee to prepare a prospectus, suggest the amount of capital, and the shares into which it should be divided, and arrange all matters of detail to be considered before its being submitted to the general meeting." The members of the Sub-Committee are Messrs. Richard Martin, J. F. Lombard, J. W. Murland, S. F. Adair, R. O. Armstrong, W. G. Brookes, E. D. Gray, Major Geary; and the Honorary Secretaries, R. O'B. Furlong and J. T. Pim. The Sub-Committee are to report on May 8.

SCARLET FEVER AT BRIXHAM.

An epidemic of scarlet fever has recently broken out at Brixham, in Devonshire. Several cases have occurred simultaneously in different parts of the town. The origin of the outbreak is unknown, but it is reported that the disease has been introduced into several families through inattention to the isolation of patients, and the neglect of such precautions as the prevention of children from attending school who reside in houses where the disease exists.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of this Society was held at 53, Berners-street, on Friday, April 28. Dr. Quain, one of the treasurers, was in the chair. From the statement read by the Secretary, it appeared that the income available for the payment of grants and expenses for the year 1875 had been £3213 5s., showing an increase of £147 10s. on that of 1874. The expenditure had been £2939 2s., a decrease of £135, chiefly owing to the small number of applicants for fresh grants during the year. The total amount of grants had been £2711 10s., including a donation of £253 at Christmas, distributed among the widows and orphans. The expenses had been £227 12s. 10d. Fifty-eight widows and seventeen children had been assisted. Twenty-eight new members had been elected; twelve had died, including three Vice-Presidents and one Director, viz., Vice-Presidents—Dr. Latham, Sir Charles Locock, Bart., and Mr. Iliff; Director—Mr. Sercombe. Eight members had resigned or ceased to be members. The Society now consists of 404 members—an increase of eight. Two widows had been added to the list of annuitants, four had died, and five children had become ineligible. The funded property had been increased by the purchase of £1541 6s. 2d. Metropolitan 3½ per Cent. Consolidated Stock. Legacies of the value of £1440 had been received. Mr. C. J. F. Lord was elected a Vice-President, and the following gentlemen Directors:—Mr. Birkett, Dr. Carr, Mr. Steet, Dr. James E. Pollock, Dr. Wilks, and Mr. Savory. A vote of thanks to the editors of the medical journals was carried unanimously, and the proceedings terminated by a vote of thanks to the chairman.

THE CLINICAL SOCIETY.

The last meeting of the Clinical Society was marred by an incident which, as it has recurred more than once, we feel bound to notice. Dr. Buzzard had brought before the meeting an exceedingly interesting case of glycosuria following a railway injury. The case was not one for any very strong opinion as to its causation, but Dr. Donkin took the opportunity of making certain remarks which were hardly justifiable in tone either with regard to this case or as regards any other. These referred to the curability and neurotic origin of the malady. This led, first Dr. Pavy, and secondly the President, Sir W. Jenner, to speak on the subject, both in substance condemning Dr. Donkin's statements. This gentleman not only replied, out of all rule, to Dr. Pavy, but endeavoured when the debate was closed to force on a personal discussion with the President. His proceedings were resented by the Society, and they will also be reprehended by the public. Discussion, whilst free and to be free, must be decorously conducted. Similar scenes have been previously witnessed, but we trust Dr. Donkin will take a hint as regards the future.

ANDERSON'S UNIVERSITY, GLASGOW.

The Summer Medical Session at Anderson's University, Glasgow, was opened yesterday. Dr. J. G. Wilson, Professor of Midwifery, delivered an introductory address to a large and attentive audience comprising several of his colleagues as well as students. In the outset he spoke of the dignity and usefulness of the medical profession—its arduous and responsible duties; and afterwards adverted more specially to the branch of midwifery, tracing it from the past, when it was neglected, to the present day, when its importance is fully recognised. The present Summer Session at Anderson's University promises to be a very successful one.

SMALL-POX PATIENTS AND THE 132ND SECTION OF THE PUBLIC HEALTH ACT.

A young man who had recently been an inmate of the Small-pox Hospital of the Stockport Workhouse, and on whose behalf £4 3s. 5d. had been expended by the Sanitary Com-

mittee of the Corporation for medical attendance and maintenance, was summoned last week before the Stockport magistrates under the 132nd section of the Public Health Act of 1875, to show cause why an order should not be made upon him for the payment of that amount. The Town Clerk prosecuted on behalf of the Sanitary Committee. He said it was desirable to bring this case before the magistrates, as an opinion prevailed that the Corporation could not recover for these expenses. The defendant was removed, at his own request, to the workhouse hospital by the sanitary officers, and maintained for forty-three days. Ten shillings a week was charged by the guardians, and £1 by the medical officer. The defence was that the small-pox was caught while defendant was working near the hospital for his employer. The magistrates made an order for the payment of the amount claimed within a month.

PARLIAMENTARY.—NOXIOUS FUMES—THE FACTORY AND WORKSHOP ACTS—THE VETERINARY SURGEON SERVICE—HEALTH OF DUBLIN.

In the House of Lords, on Thursday, April 27,

Earl Beauchamp, as Lord Steward, brought down a reply from her Majesty to an address issued by their lordships' House, which was to the effect that a Royal Commission would be appointed to inquire into the working and management of works and manufactories, smelting, burning, or converting ores or minerals by which sulphurous acid, sulphuretted hydrogen, and ammoniacal and other gases are given off, to ascertain the effect produced thereby on animal and vegetable life, and to report on the means to be adopted for the prevention of injury thereto arising from the exhalations of such acids and gases, and upon the legislative measures required for this purpose.

In the House of Commons,

Mr. Cross, in answer to Mr. Serjeant Simon, said it was not the intention of the Government to introduce this session a Bill to amend the Factory and Workshop Acts, in accordance with the recommendations of the Commissioners.

On Friday, April 28,

Mr. Hardy, replying to Mr. Stacpoole's inquiry with reference to the proposed assimilation of the offices of the Chief of the Army Medical Department and Permanent Veterinary Surgeon, with the view of putting an end to the stagnation of promotion in her Majesty's Veterinary Surgeon Service, said that the Principal Veterinary Surgeon is now being pensioned off, and that in future a different tenure of Principal Veterinary Surgeon will be established.

Dr. O'Leary, inquiring as to the non-publication of a report by a meeting of eleven medical sanitary officers that the high death-rate of Dublin was due to the insanitary state of the houses, to remedy which a new Building Act and the application of the Artisans' Dwellings Act were urgently required, was replied by Sir M. Hicks-Beach, to the effect that the meeting referred to was attended by two members of the Public Health Committee, one of whom was in the chair; by Drs. Mapother and Cameron, the Consulting Sanitary Officer and Medical Officer of Health; and by eleven out of fourteen medical sanitary officers. A lengthened discussion arose on the questions referred to the meeting, and at its close Dr. Mapother undertook, with the concurrence of the meeting, to draw up for the Public Health Committee a statement of what had passed, which he subsequently presented to the Committee. After the close of the meeting, five gentlemen who had attended it, after an informal discussion, adopted recommendations of the kind referred to in the hon. member's question; but of course those recommendations were not published, not having been adopted by the meeting itself.

WESTERN INFIRMARY, GLASGOW.—In response to the appeal recently made by Principal Caird in behalf of the Western Infirmary, the following subscriptions have been received:—Wm. Denny and Brothers, Dumbarton, for upkeep of one bed for 1876, £50; Stewart and McDonald, Glasgow, for upkeep of one bed for 1876, £50; Arnot and Co., Glasgow, for upkeep of one bed for 1876, £50; Barclay, Curle, and Co., for upkeep of one bed for 1876, £50; Wm. Baird and Co., for upkeep of one bed for 1876, £50.

ARMY MEDICAL DEPARTMENT.

ROYAL WARRANT.

1. THE ranks and rates of pay of the officers of the Army Medical Department shall be as follows:—

	Daily. £	s.	d.	Charge pay.
Surgeon-General . .	2	0	0	The Principal Medical Officer of an army in the field consisting of 10,000 men and upwards, £1 daily; of 5000 men and upwards, 15s. daily; of less than 5000, 10s. daily.
After 25 years' service .	2	5	0	
„ 30 „ .	2	7	0	
„ 35 „ .	2	10	0	
Deputy Surgeon-General .	1	10	0	
After 25 years' service .	1	12	0	
„ 30 „ .	1	15	0	
„ 35 „ .	1	17	0	
Surgeon-Major, on appointment	1	0	0	Or the Principal Medical Officer of a colony where the number of commissioned officers and enlisted men is 1500 and upwards, 5s. daily.
After 5 years' service as such	1	5	0	
Surgeon, on appointment £250 a year.				
	Daily.			
After 10 years' service .	0	17	6	

2. The pay of officers shall be issued monthly in arrear.

3. The relative rank of the officers of the Army Medical Department shall be as follows:—I. A Surgeon-General shall rank as Major-General, according to the date of his commission. II. A Deputy Surgeon-General shall rank as Colonel, according to the date of his commission. III. A Surgeon-Major shall rank as Major, according to the date of his commission; after twenty years' full-pay service as Surgeon and Surgeon-Major, he shall rank as Lieutenant-Colonel, but junior of the latter rank. IV. A Surgeon shall rank as Lieutenant, according to the date of his commission; and, after six years' full-pay service, as Captain, according to the date of the completion of such service.

4. The relative rank of these officers shall regulate choice of quarters, rates of lodging-money, servants, fuel and light, or allowances in their stead, detention and prize-money, as well as allowances granted on account of wounds or injuries received in action, and pensions and allowances to widows and families.

5. Forage shall be granted to officers of the Army Medical Department for such number of horses as are necessarily kept by them for duty.

6. Admission to the Army Medical Department shall be by public competition.

7. Every candidate for appointment to the Army Medical Department shall possess two diplomas or licences, one to practise medicine and the other surgery in Great Britain or Ireland, and be registered under the Medical Act in force at the time of his appointment.

8. A successful candidate, who, having passed through a course of instruction at the Army Medical School at Netley in military medicine, surgery, hygiene, and pathology, shall have proved, after examination, that he possesses a competent knowledge of those subjects, shall receive a commission as Surgeon for a limited period of ten years' service on full pay. From the date of joining at Netley and up to that of passing his final examination a candidate shall receive 5s. a day.

9. On the completion of ten years' commissioned service, unless the Surgeon be specially selected for further employment in the Medical Department of our Army, or if he be unwilling to continue to serve therein, his services shall be dispensed with, and he shall be entitled to receive, in lieu of all pension or retirement (pension for wounds excepted), the sum of £1000.

10. A Surgeon of less than ten years' service, disqualified for duty by ill-health, certified by a Board of Medical Officers to have been contracted in and by the service, may, at the discretion of our Secretary of State for War, be granted half-pay at a rate not exceeding 8s. a day if he have served five years or more, or 6s. a day if he have served less than five years, for a period not exceeding six months at one time.

11. At the expiration of that period of six months, if the Surgeon be able to resume his duties, he shall be entitled to complete his term of ten years' service. If he be unable to resume duty, as certified by a Board of Medical Officers, he shall be allowed, if he have not served five years, a further period of six months, without half-pay; at the expiration of

which period, if still unable to resume duty, his services shall be dispensed with.

12. If the Surgeon have served five years on full pay, and be unable to resume duty as certified by a Board of Medical Officers, his services shall be dispensed with, and he shall be entitled to receive, in lieu of all further pension or pay (pension for wounds excepted), a gratuity at one of the following rates, viz. :—

If he shall have completed	9	years' full-pay service..	£800
,,	,,	8	,,	.. 700
,,	,,	7	,,	.. 600
,,	,,	6	,,	.. 500
,,	,,	5	,,	.. 400

13. If a Surgeon be unable to complete his ten years' service from any cause other than wounds or ill-health, certified by a Board of Medical Officers to have been caused in and by the service, or reduction of establishment, he shall be allowed not more than six months' leave without pay; after which, if unable to resume duty, his services shall be at once dispensed with, and he shall have no further claim on the Department.

14. If the services of an officer be temporarily dispensed with in consequence of a reduction of establishment, he shall be granted the rates of half-pay fixed by Article 10 until there be an opportunity of re-employing him; or, if he have served five years, he may retire from the service with a gratuity according to the rates specified in Article 12.

15. Every year it shall be competent for our Commander-in-Chief, on the recommendation of the Director-General of the Army Medical Department, to select, with the approval of our Secretary of State, a number of Surgeons, not exceeding six, who shall be retained in the service, and shall be promoted, after twelve years' service on full pay, to the rank of Surgeon-Major.

16. All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing, and recorded in the Department. In all such cases the amount of foreign service shall be expressly stated.

17. A medical officer retiring after full-pay service of twenty-five years and upwards, may, if recommended for the same by the head of his department, receive a step of honorary rank, but without any consequent increase of half-pay.

18. Good-service pensions shall be awarded to the most meritorious officers of the Army Medical Department, under such regulations as shall be from time to time determined by us, with the advice of our Secretary of State.

19. Six of the most meritorious officers of the Army Medical Department shall be named Our Honorary Physicians, and six Our Honorary Surgeons.

20. Medical officers shall have a right to retire on half-pay after twenty years' service. Medical officers of the rank of Surgeon-Major or Surgeon shall be placed on the retired list at the age of fifty-five, and all Surgeons-General and Deputy Surgeons-General at the age of sixty years.

Our Secretary of State may, when he shall deem it fit, employ medical officers on the half-pay list in special situations at such rates of pay, in addition to half-pay, as he shall from time to time determine; but such officers shall vacate their appointments on attaining the age of sixty-five years.

22. A medical officer who, having voluntarily resigned his commission, has subsequently been permitted to re-enter the Department, shall not, except under very special circumstances, to be approved by our Secretary of State, be allowed to reckon his former service.

Service on the West Coast of Africa.

23. Service of medical officers upon the West Coast of Africa shall be voluntary.

24. Each year or portion of a year shall be allowed to reckon double towards retirement or towards the gratuities fixed by Articles 9 and 12, but not towards increased pay, provided that the officer shall serve at least twelve months on the West Coast of Africa.

25. For each year's service on the Coast, a medical officer shall be entitled to a year's leave at home, and for every additional period beyond a year he shall have an equivalent extension of leave.

26. Officers who may volunteer for service on the West Coast of Africa shall receive double pay while actually serving on the Coast.

Non-effective Pay.

27. A medical officer of more than ten years' service placed on half-pay by reduction of establishment, or on the report of a Medical Board in consequence of wounds or ill health, caused in and by the discharge of his duties, or on account of age (under Article 20), shall be entitled to half-pay in accordance with the following scale :—

	Daily. £ s. d.
Surgeon-General, after 30 years' service . . .	1 17 6
,, ,, 25 ,, . . .	1 13 6
,, ,, 20 ,, . . .	1 10 0
Deputy Surgeon-General, after 30 years' service .	1 5 6
,, ,, ,, 25 ,, .	1 2 6
,, ,, ,, 20 ,, .	1 1 0
Surgeon-Major, after 25 years' service . . .	1 0 0
,, ,, 20 ,, . . .	0 16 6
,, ,, 15 ,, . . .	0 13 6
,, ,, 12 ,, . . .	0 11 0
Surgeon, after 10 years' service	0 10 0

28. The rate of half-pay awarded to officers retiring for their own convenience, after twenty years' service on full pay, under Article 20, shall not exceed one-half of their full pay at the time of retirement.

29. Every medical officer who shall retire after a service upon full pay of twenty-five years, shall be granted a rate of half-pay equal to seven-tenths of the daily pay he may have been in receipt of when thus retiring on half-pay, provided he shall have served three years in his rank, or shall have served abroad for ten years in all ranks, or for five years with an army in the field. An officer of twenty-five years' full-pay service, whose service falls within neither of these conditions, shall be entitled to only seven-tenths of the daily pay he was in receipt of prior to his last promotion.

30. A medical officer of twenty years' full-pay service, placed temporarily on half-pay on account of ill health, may, however, be allowed to retire on permanent half-pay, at the rates fixed by Article 27, if after one year on half-pay he shall be reported by a Medical Board to be permanently unfit for further service.

31. In all matters not specially provided for in our present warrant, the officers of the Medical Department of our Army shall be subject to the General Regulations for the Departments of our Army.

It is our further will and pleasure that the rules established by our Warrant of March 1, 1873 (as amended by our Warrant of October 23 of the same year), Article 19 of our Warrant of February 18, 1874, and by our Warrant of September 29, 1874, shall continue to be applicable to all officers now in the Medical Department of our Army; but that Articles 4, 11, 12, 14, 15, 16, and 20 of our said Warrant of March 1, 1873, shall be cancelled, and the following Articles shall be substituted in lieu thereof :—

(4.) I. A Surgeon-General shall rank as Major-General, according to the date of his commission. II. A Deputy Surgeon-General shall rank as Colonel, according to the date of his commission. III. A Surgeon-Major shall rank as Major, according to the date of his commission; after twenty years' full-pay service as Surgeon and Surgeon-Major, he shall rank as Lieutenant-Colonel, but junior of the latter rank. IV. A Surgeon shall rank as Lieutenant, according to the date of his commission; and, after six years' full-pay service, as Captain, according to the date of the completion of such service.

(12.) A Surgeon shall be promoted to the rank of Surgeon-Major on completing twelve years' full-pay service in our Army, if he be recommended by the Director-General of the Army Medical Department.

(16.) All promotion from the rank of Surgeon-Major to that of Deputy Surgeon-General, and from the rank of Deputy Surgeon-General to that of Surgeon-General, shall be given for ability and merit upon the selection of our Commander-in-Chief, with the approval of our Secretary of State; and the grounds of such selection shall be stated to us in writing, and recorded in the Department. In all such cases the amount of foreign service shall be expressly stated.

(20.) Medical officers shall have a right to retire on half-pay after twenty years' service. Medical officers of the rank of Surgeon-Major or Surgeon shall be placed on the Retired

List at the age of fifty-five, and all Surgeons-General and Deputy Surgeons-General at the age of sixty years.

We do further direct that when any officer now serving shall, under Article 20 of our Warrant of March 1, 1873, as revised by our present Warrant, be compelled to retire at the age of sixty, he shall have added to his retired pay, as fixed by our said Warrant, such annual sum as our Secretary of State shall consider to be a just compensation for any net loss he may have incurred from the substitution of sixty for sixty-five as the age for retirement.

Until our further pleasure shall be made known, nothing contained in our present Warrant shall be held to change the existing system of promotion of the medical officers of our Regiments of Household Troops.

Given at our Court at Windsor, this 28th day of April, 1876, in the Thirty-ninth Year of our Reign.

By her Majesty's command,

GATHORNE HARDY.

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

(*Continued from page* 478.)

WE now come to the third part of the examination of the heart: the opening of both the ventricles.

For this purpose, the best plan is to place the heart exactly in the position which it occupied in the body, upon a board or table, and then to make the necessary incisions. This has the advantage of exposing to view the directions the incisions are to take. The interior of the heart ought, by means of the following incisions, to be made so far accessible to eye and finger that the parts remaining to be examined can be conveniently reached. Among these we must mention, in the first place, the auriculo-ventricular valves with their chordæ tendineæ and musculi papillares. Afterwards come the cavities themselves, their endocardial investment, the arterial valves, the septum between the ventricles and that between the auricles, and the muscular substance itself. The auriculo-ventricular valves are here first mentioned, not on account of their peculiar importance, but because the want, previously alluded to, of a proper closure test for them makes it requisite to subject them to a much more minute examination, and to preserve them in their integrity until this has been done. With regard to the arterial valves, which have meanwhile been thoroughly tested and examined with reference to their capacity for closing, the same kind of care is no longer necessary. These considerations determine the directions of the incisions requisite for the complete opening of the ventricles.

(*a.*) The incision for the right ventricle is in a straight line prolonged from the pulmonary artery, and near the base of the heart. The best instrument for this purpose is a long pair of scissors, such as those used for examining the intestines. One blade of the scissors is inserted into the previous incision made in the right border, and carried in a direction towards the pulmonary artery. There is just one thing to bear in mind, and that is, that in this direction we come upon the anterior papillary muscle of the tricuspid valve with its chordæ tendineæ; and this must be carefully preserved. If this or its chordæ tendineæ be cut through, we shall not be able subsequently to demonstrate perfectly the arrangement of the valves of the tricuspid opening. The blade of the scissors must be introduced in front of this papillary muscle, and the incision through the anterior wall of the ventricle and of the pulmonary artery must, as described, be carried close to the base.

(*b.*) The incision for the left ventricle, which should also be made with a long pair of scissors, is in a straight line prolonged from the ascending aorta, and close to the septum ventriculorum. It commences at the apex of the heart, and divides the anterior wall of the ventricle and of the aorta. The part which here requires the greatest care and attention is the base of the mitral valve; and the explanation of this is as follows:—If we cut directly upwards from the apex of the heart to the aortic orifice, keeping too close to the septum, the incision will cross the pulmonary orifice, and, by simply continuing the same, we shall cut through the valves of the pulmonary artery. This can be avoided by drawing the pulmonary artery to the right when making the incision, and by continuing this to the left, close to and behind the artery. But we must not go too far towards the left; there is a Charybdis here to be avoided. The right border of the base of the mitral valve is inserted quite close to this spot, and this valve, as is well known, is connected immediately with the left border of the aortic orifice. If the incision goes only a few millimetres too much to the left, we shall cut off that portion of the mitral valve which forms the above-named junction; and then, if we attempt to put together the divided portions of the heart, we shall find an aperture in the mitral valve. Externally, this spot corresponds exactly with the right border of the base of the left auricle. This should be our guide. The incision must therefore be carried through midway between the pulmonary orifice and the left auricle.

The principal part of the examination is now finished. The auricles can, however, be still further opened by cutting through their wall with the scissors, between the openings of the venæ cavæ on the right, and of the pulmonary veins on the left side. Further incisions can also be made into the muscular substance; for example, some very important ones running parallel to the surface from those last made in the ventricles, and which divide the wall of the heart into an inner and an outer half. The coronary arteries can also be further slit up, the incisions hitherto made having, upon the whole, but little interfered with these vessels. In exceptional and peculiar cases, such steps as these may have to be taken; but, as a general rule, the examination is completed in the three acts which have been detailed, and which are also indispensable. The heart cannot possibly be regularly examined unless these three acts are properly performed.

One might suppose, after reading the long description which I have just given, that it would take a long time for all this to be carried out. The reader's idea might be similar to that of an unfortunate district physician, who, after studying the new Regulations, came to the conclusion that to make an autopsy in the prescribed manner would require at least two days. The one notion is as erroneous as the other. Ten minutes are sufficient to examine the heart in the way I have described, and an autopsy can be performed according to the new Regulations in three hours, and even in two where there are but few complications.

In order to be able to judge for myself as to the requirements of the Regulations, I have taken a few suitable cases, and made the post-mortem examinations in the prescribed form. I give, by way of a supplement, the notes of these examinations as instances, and also, in a certain sense, as models. I do not mean that they should (like Caspar's autopsies) serve as examples of diction and technics, and should relieve those who make examinations from describing and specifying in their own way what they find before them; but what I intend is that they should show what a report is like when the Regulations have been carried out. A certain amount of freedom has been used in dictating these notes, and a very critical eye may possibly discover a few places where the Regulations have not been complied with, and some strictures may be made thereupon. But these, I hope, are such subordinate points that there will be at least no necessity for any "revision notes" (*Revisionsbemerkungen*) in the sense in which this word is used by the Committee of Sciences.

The cases which I have selected are also of some interest in other respects, and I shall take the liberty of interpolating a few critical remarks.

CASE I.

A man unknown. Dead when brought in; face covered with blood; left side of face, particularly about the ear, of a bluish-red colour. Death from suffocation caused by pulmonary hæmorrhage and œdema.

Length of time occupied in the examination, two hours and five minutes.

A. *External Examination.*

1. The body is that of a man apparently from forty to fifty

(a) From the *Charité-Annalen.*

years of age; height, 1·75 metre (68·89 inches); very strongly built; adipose tissue slight in quantity; muscles greatly developed,—those of the arm and thigh less so in proportion than those of the forearm and leg.

2. Body generally pale in colour; abdomen slightly green; flanks posteriorly, scrotum and glans of a uniform bluish-red; dorsum the same, and pale only where exposed to pressure; on pressing with the finger this bluish-red colour can be made to disappear, not easily, though tolerably completely. On an incision being made, only distended vessels are visible in the skin and subcutaneous tissues, from which fluid blood escapes.

3. The body being turned over for the purpose of this examination, a thin sanguineous fluid escapes from the nose and mouth.

4. The face, particularly the left side as far as the ear, and the beard are much soiled with dried blood, the largest quantity being on the nostrils and lips. A brownish-red, dry, powdery substance, on the left side converted into larger coherent crusts of dried blood, covers the neck and upper part of the chest.

5. Hair of head abundant, curly, light brown in colour; numerous scattered grey hairs. The beard full, especially about the chin; whiskers strongly developed, colour more reddish-brown; eyebrows thick and, like the eyelashes, of a dark greyish-brown colour; pupil pale greyish-blue; face large; forehead prominent; nose large and straight; high cheek-bones; front teeth perfect; back teeth more or less carious and defective; no traces of recent injury; lips pale and thin.

6. The body presents no other particular characteristics, only that the prepuce is unusually short, and covers no more than the edge of the glans; there is, however, no cicatrix of any kind to be seen.

7. The hands large; the nails long and bluish, the projecting edges filled up with thick black dirt, traces of which are seen also in the palms of the hands.

8. There is some amount of mobility in the principal joints of the extremities, but there are signs of rigor mortis in all the smaller articulations.

9. The eyelids are only partially closed; the cornea transparent, and comparatively tense.

10. No foreign body about the nostrils, with the exception of the blood already mentioned.

11. The lips, as well as the teeth, are slightly parted; the tongue is behind the teeth, and, like the palate, covered with fluid blood.

12. External parts of ears unusually large; the left ear of a dark brown-red colour. On an incision being made, blood flows everywhere copiously from the divided vessels, but there is no sign of extravasated blood in the tissue; auditory meatus empty.

13. Neck not very easily movable; no change perceptible.

14. Chest full; abdomen slightly distended.

15. Cutis anserina slightly marked on the extremities, especially on the lower ones; the legs above the ankles rather large, pitting on pressure; the tissues on section found to be infiltrated with fluid. Just above the ankles there is a loose knotted piece of cord, twisted round each of them; corresponding to this there is a transverse indentation on the inner and anterior aspects. This, when cut into, exhibits no extravasation of blood.

16. The parts about the anus much soiled with brown excrement; the anus closed.

17. In conclusion, there is no perceptible mark of external injuries.

B. *Internal Examination.—a. The Cranial Cavities.*

18. The soft parts covering the skull are divided, as directed, by an incision carried transversely over the head, and reflected back. All these parts are then seen to be somewhat red in colour, the alteration being more marked posteriorly than in front—the redness, however, not being sufficiently distinct on any one spot for it to indicate extravasation; on the other hand, thick blood exudes everywhere from the divided vessels, and the soft parts appear to be uniformly infiltrated with reddish serum.

19. The skull-cap, very broad and much arched, exhibits posteriorly a similar reddish infiltration of its tissue, especially at the sutures, which are deeply indented, and furnished in various places with ossa triquetra. The colour of the remaining portions of the skull-cap is a dirty yellowish-grey, somewhat more whitish in isolated spots.

20. The skull-cap is sawn through with difficulty, and, when divided, cannot be taken off from the tough dura mater. The latter is therefore immediately cut through. On attempting to detach the bone and dura mater, the brain also follows, and this latter has to be removed by separating methodically its connexions in the base of the skull.

21. The brain being removed, there is no appearance of serum nor of any other effusion on the basis cranii. The large sinuses in that situation contain only a moderate amount of fluid blood.

22. There is some difficulty in separating the tough dura mater from the base of the skull and the posterior portions. There is no sign of any kind of injury to the bones of the base.

23. There is no change, also, on the base of the brain itself. The great arteries are large, but flat and empty. The pia mater everywhere fine and soft, and its veins only filled with blood near their origin.

24. After the removal of the brain from the roof of the skull, the inner surface of the dura mater is found to be everywhere of a pale colour. There is no deposit connected with it; it is somewhat thick and tendinous; the longitudinal sinus large, but filled throughout with fluid blood.

25. The dura mater is then removed from the roof of the skull. Its external surface is also pale; the bloodvessels very prominent, but empty.

26. Neither fissure nor injury of any kind visible in the roof of the skull; diploë scanty in amount. The bones, on an average, are from five to six millimetres thick. Fine, red, very vascular, soft growths on the inner surface of the frontal bone in the middle line.

27. The surface of the brain well formed; the pia mater delicate throughout; the veins filled with blood, tumid even to roundness on the left side, somewhat less so upon the right.

28. On cutting into them, the lateral ventricles are found to contain a small, inappreciable quantity of clear fluid. Cavities of normal size; posterior cornua obliterated. Septum soft, and easily torn; choroid plexus and vessels of the velum of a dark red colour, owing to great distension. The vessels separable only with difficulty from the corpora quadrigemina.

29. On cutting into the hemispheres of the brain, the tissue is found to be moist and glistening; the white substance exhibits numerous bloody points, from which drops of blood exude on pressure; these drops can be washed away with water. The grey substance of the cortex pale reddish; that of the corpus striatum and of the thalamus similar in appearance, and also moist. No other change. Consistence of the brain good.

30. Corpora quadrigemina pale. Pineal gland small and red.

31. The fourth ventricle empty; its surface pale and soft, its choroid plexuses reddened.

32. The cortex of the cerebellum reddened throughout, though the vessels are not perceptible; the medullary substance, on the contrary, traversed by congested venous branches. Consistence good; moisture moderate in quantity. No change.

33. At the base of the brain, all the lobes cut through by numerous parallel transverse incisions; no alteration of any kind apparent. The grey substance slightly reddened throughout.

34. The grey substance of the pons Varolii and the cerebral peduncles of a reddish colour; the white substance traversed by numerous congested veins. Consistence good.

35. The medulla oblongata pale; the grey matter of the rhomboid fossa somewhat more reddened.

b. Thorax and Abdomen.

36. A long incision is made from the chin to the pubic symphysis as directed, the integuments divided, and the cavity of the abdomen laid open. Adipose tissue slightly developed; muscles somewhat pale.

37. No foreign body in the abdominal cavity. Position of the parts normal. Cæcum, transverse colon, and the ascending portion of the large intestine are much distended; also a portion of the small intestine—in part with gas, and in part apparently with fluid. All these parts are pale in colour; the omentum only presents a few distended veins.

38. The arch of the diaphragm on each side is between the fourth and fifth ribs.

(1.) *The Thorax.*

39. After removal of the sternum the lungs come into view, somewhat distended, particularly the left one; position of the parts normal in other respects. The pericardium to a great extent covered by the lungs.

40. On the left side several very firm adhesions between the surface of the lung and the wall of the thorax. A tablespoonful of thin reddish fluid in the most posterior part of the pleural cavity.

41. On the right side the adhesions to the upper lobe are somewhat more extensive, but equally firm, and traversed by vessels. A smaller amount of fluid than on the left side. Internally, near the pericardium, the adhesions are still more extensive.

42. The pericardium contains a tablespoonful of a slightly reddish but clear fluid.

43. The heart about the size of the man's fist, its right surface flattened, a slight amount of tendinous deposit (*Sehnenflecke*, maculæ albidæ), the right ventricle moderately covered with fat, pale, and only the coronary veins somewhat distended with blood. The right auricle contains particularly fluid blood, mixed with a very small quantity of soft, friable, buffy clot. The quantity of blood collected from the right side of the heart and the large veins amounts to 150 cubic centimetres. The right ventricle contains fluid blood only, inappreciable in quantity. The left auricle contains fluid blood and a small quantity of thick blood. The left ventricle quite empty. The blood everywhere equally dark. The aorta three centimetres in diameter, its walls thick, inner coat especially thickened. The pulmonary artery about the same size, but with thin walls. The valves at the mouths of both vessels close. On section, right ventricle found to be dilated, left ventricle large. Muscular tissue somewhat dark; a little paler on the right side. Valves without alteration, but of a deep red colour.

44. The large veins of the neck moderately distended with fluid blood; arteries empty. The large nerves apparently unaltered.

45. The cavity of the mouth opened, as directed, from beneath; the tongue drawn away, and the upper part of the throat exposed. All these parts covered with a layer of bloody mucus, which, however, can be easily rubbed off; after its removal the mucous membrane appears slightly reddened, but otherwise unchanged. Lingual follicles large, whitish. Tonsils slightly swollen.

46. A considerable quantity of bloody froth with large bubbles in the larynx and upper portion of the air-tubes. This removed, the mucous membrane appears only slightly reddened; on the posterior aspect of the tubes the vessels of the mucous membrane distended with blood, but no other change.

47. The remaining thoracic viscera, with the lungs, are now removed, together with the costal pleura.

48. Lower portion of the œsophagus is covered with reddish fluid, which can be easily taken off. After its removal, no alteration visible in the subjacent mucous membrane.

49. There is slight dilatation, and thickening of the internal coat, of the thoracic portion of the aorta, but no breach of surface. The same may be said of the large branches of the artery going to the neck.

50. The upper part of the air-tubes, as well as their large ramifications, are filled with frothy and bloody matter.

51. The lungs seem large, very concave on their diaphragmatic surface, studded over, especially on the right side, with smooth projections of their tissue greatly dilated (emphysematous). The lungs, in general, are grey in colour, pale anteriorly, reddened posteriorly. Numerous furrows, due to absorption, on the anterior surface. These latter places feel harder to the touch; the rest of the tissue is soft, but only slightly crepitant.

52. On section, in the apex of the right lung is found a ramified cavity of irregular shape, about six centimetres and a half in diameter, consisting of two compartments, separated by a thin septum, and each of them four centimetres and a half in horizontal diameter. Each contains a bloody, slightly frothy liquid, which can be easily removed by water. The walls of both these cavities are irregular and rough, and, on water being poured upon them, they are seen to be covered with adhesions, which readily float. Many large eroded vessels, some of them lying free like rafters, are found in these cavities, into which branches of the air-tubes may be directly traced. In other parts of the lung there are single smaller cavities with smoother walls, and also separate circumscribed spots, externally hard to the touch, some of which appear on section dense, dull, greyish-red, and finely granular; others dry, greyish-white, and caseous. The rest of the pulmonary tissue is full of frothy, whitish fluid, which can be easily pressed out.

53. On the left side, below the apex, more towards the centre of the upper lobe, there are several similar cavities, varying in size from that of a walnut to a hen's egg, containing also fluid, slightly frothy blood, and connected with the air-passages. The wall of these cavities is irregular and ragged; the remains of the large vessels appear as whitish projections. There is a similar cavity about as large as a walnut in the upper part of the lower lobe. Throughout the remainder of the lung there are numerous nodules of varying size—some as large as peas; a few with cavities in their interior; others solid and caseous; others, again, solid and dark grey.

(2.) *The Abdomen.*

54. Spleen closely adherent to the diaphragm and omentum; fourteen centimetres long, nine centimetres broad, three centimetres and a half thick; externally, grey steel-coloured. On section, dark brown-red; pulp abundant, with numerous dark red spots; follicles slightly enlarged.

55. Left kidney thirteen centimetres long, six centimetres and a half broad, three centimetres and a half thick. Capsule slightly dull, thin. Surface of the kidney smooth, brownish-red, bright; consistence firm. On section, the medullary and cortical substance very red, not dull; no other change. Malpighian corpuscles bloodless. Supra-renal capsule with a small amount of cortical and medullary substance; the tissue connecting it with the kidney firm and well supplied with blood.

56. On separating the parts surrounding the right kidney a fibrous adhesion between the large intestine and the under surface of the right lobe of the liver brought into view.

57. Right kidney of same size as left, and resembling it in other particulars. Supra-renal capsule in a similar condition.

58. Bladder contracted, and containing only a few drops of whitish urine. No change in mucous membrane.

59. Left testicle somewhat mis-shapen in consequence of fibrous adhesions on its surface. An offset from the right one at the upper part of the epididymis.

60. The stomach distended, and containing a large quantity (about 200 cubic centimetres) of thick, clotted, bloody fluid, mingled to some extent with large air-bubbles.

61. Fluid of a similar kind in the commencement of the duodenum, but extending only as far as the opening of the gall-duct. After this the contents are of a pale yellowish colour. Opening of gall-duct normal.

62. The mucous membrane of the stomach tinged throughout with blood, but without any lesion; only the large veins distended with blood.

63. In the upper part of the intestine a large amount of a grey fluid resembling gruel, slightly coloured with bile. This becomes thinner and more scanty in the upper part of the jejunum. The ileum contains a very large quantity of fluid of a brownish colour. This part of the bowel is so soft that it tears when cut into with the scissors. The lowest part of the ileum contains a quantity of very fluid fæces. The large intestine from the ileo-cæcal valve full of thick pulpy fæces. The mucous membrane throughout the ileum thin and pale; the glands slightly tumid. In the jejunum the mucous membrane is thicker. Here and there a single gland appears tumid, but in other respects normal. In the upper part of the jejunum the mucous membrane has a whitish appearance.

64. The liver (twenty-eight centimetres broad, twenty-three centimetres from front to back, and eight centimetres thick) is firm to the touch, its surface of a pale brownish colour, somewhat firm under the knife; breaks with difficulty, and appears on section uniformly red. The lobules are large, and their colour uniform.

65. The inferior vena cava contains fluid blood.

This case is a remarkable instance of ulcerous consumption of the lung, occurring in a man in other respects vigorously developed, and in whom the disease, though obviously of long standing, had confined itself to the lungs. Owing to the advanced stage of the disease, it cannot be ascertained whether the morbid process primarily originated in bronchiectasis or caseous pneumonia; at any rate, caseous pneumonia finally supervened. It is a matter of great interest that, notwithstanding the amount of hæmorrhage from the lung, the fatal result was not due simply to loss of blood (anæmia), nor to simple occlusion of the air-passages by the extravasated blood, but really to the supervention of œdema—a complication which is explained, on the one hand, by the robust condition of the patient; and, on the other, by the slow course of the hæmorrhage. Not a single eroded bloodvessel could be discovered.

The conclusions to be drawn from the foregoing statement are as follows :—

1. That death occurred from suffocation caused by pulmonary hæmorrhage and œdema.

2. That no signs of any external injury were revealed by the autopsy.

(*To be continued.*)

FROM ABROAD.

M. Labbé's Case of Gastrotomy.

At the last meeting of the Académie de Médecine, M. Labbé, the surgeon of La Pitié, detailed the case (*Gaz. des Hôp.*, April 27) which has been so frequently referred to in the newspapers, of the man who swallowed a fork.

On March 30, 1874, a man, eighteen years of age, imitating the feats of a juggler, allowed a fork which he was pretending to swallow, and the prongs of which he ought to have held by his teeth, to pass deep into the pharynx. During the attempts which were made to extract it with a long polypus-forceps, amidst symptoms of imminent asphyxia, it slipped into the stomach, the patient immediately feeling a sense of relief. He suffered no pain and was very cheerful, and during several explorations that were made, the fork was only distinctly ascertained to be in the stomach on one occasion. At the end of a fortnight, he was seized with violent pains in the stomach, accompanied by repeated syncope ; but after twenty-four hours this crisis passed away, and a considerable tumefaction, corresponding to the great end of the stomach, was observed. Considerable pain followed each meal. From this time he alternated between complete ease and a moderate amount of suffering, and in the month of June he returned to his friends in Burgundy. While there, he had at first recurrences of considerable pain, which lasted about a fortnight, during which time he was obliged to keep lying down on his left side, the intervals of ease lasting about a week.

In June, 1875, he repaired to Lyons for advice, and remained there for a month ; and after his return to Burgundy his health became quite satisfactory, the pains almost completely disappearing. In October he returned to Paris, and resumed his employment during six weeks, after which the pains returned with violence, and his health became much shattered. He now consulted M. Labbé as to the propriety of the performance of a surgical operation. By means of certain manœuvres he was always able, and especially when the stomach was distended with food, to bring the prongs of the fork against the boundary line of the hypogastrium and the epigastrium, so that they could be felt through the walls of the abdomen. As the body had constantly kept the same position since the time of the accident, M. Labbé thought well of the chances of an operation, and M. Gosselin and Baron Larrey also sanctioned it. Caustics were employed as a preliminary, in the hope of producing adhesions extending from the exterior inwards, but when the operation was resorted to on April 9 (*i.e.*, rather more than two years after the accident), these were found entirely absent.

M. Labbé gives a minute account of the operation and of the preliminary steps he took, by performing it on numerous dead bodies, for ascertaining the best place for making the incision. For this we have not space, and it must suffice to say that an incision of four centimetres was carried from a centimetre on the inner side of the false ribs, and parallel with them, its inferior extremity falling on a transverse line passing through the cartilages of the two ninth ribs. In this way the anterior surface of the stomach was reached at the junction of its cardiac and pyloric portions. Forcipressure was employed to keep the wound clear of blood. On the stomach being exposed, before any incision was made into it, it was attached by eight points of suture, passed by highly curved needles, to the abdominal parietes at a distance of a centimetre from the circumference of the external wound. On the incision into the stomach being made, the fork was readily felt at several centimetres from the left extremity of the incision ; and it was found that the extraction could not be easily made, inasmuch as the finger was grasped by the aperture of the stomach as by a vice. When, however, the mucous membrane had been everted and fixed along the whole circumference of the stomachal wound, all difficulty ceased, and the fork was seized by a long polypus-forceps with curved extremity, detached from amidst a mass of "fungous tissue" which surrounded it, and made to project through the wound. Some threatenings of peritonitis were averted by the application of collodion to the abdomen, and under the use of iced champagne the patient's strength soon became re-established. On the fifth day he began to take solid food, and gradually resumed his ordinary diet. All but two of the sutures have come away, and the aperture is reduced to a fistula that scarcely admits the little finger. In conclusion, M. Labbé remarks :—

"The successful termination of the operation seems to me to be due to several conditions. I attribute it to the operative procedure adopted, founded on very exact knowledge of the "landmarks" ; to the precaution I took of fixing the stomach to the abdominal parietes before opening it ; and to the consecutive treatment, especially the employment of so thick a layer of collodion as to render the walls of the abdomen and the digestive tube itself immovable, while submitting them to a very firm compression. By means of this compression the character of the respiration was very decidedly modified, the diaphragmatic having been converted into an upper costal respiration."

REVIEWS.

The Causes and Treatment of Imperfect Digestion. By Arthur Leared, M.D. Dub. London : J. and A. Churchill. Sixth edition. Pp. 288.

This popular little work is too well known to require any praise at our hands. It now appears in its sixth edition ; the preface tells us that 7000 copies of the book have been printed. We have read through the new edition, lead on partly by the engaging style of the author, and partly by the really instructive character of the work. It is evidently written for the public, and it contains rules, the following out of which will be beneficial from a prophylactic as well as from a curative point of view. We were not aware before that the science of "rinking" owed its origin to the post-prandial meditations of a dyspeptic, who "found that nothing was so good for him as strong exercise, and that of all exercises skating was by far the best. But since skating is limited by the season, he successfully devoted himself to perfecting the roller-skate and the floor upon which it is used." We heartily congratulate this gentleman on the result of his cogitations, and sincerely hope that the remedy worked a complete cure. There are some useful suggestions on the use and abuse of medicines, which, we think, deserve especial mention.

On the Functional Diseases of the Urinary and Reproductive Organs. By D. Campbell Black, M.D. London : J. and A. Churchill. 1875. Second edition. Pp. 312.

That a book on such a subject should have appeared in a second edition can only be explained in one of two ways —either it (a medical book) is largely read by lay readers ; or, those who got the first edition, being disappointed in its contents, applied for the second, in the hope of finding there that which they failed to find in the first. It is possible that both these factors may have had some influence ; but each one conveys its own moral. We have carefully read through this book, and have signally failed to discover its *raison d'être*. It appears to be an indifferent compilation of medicine, surgery, physiology, and medical jurisprudence, under an assumed title ; and not one of the subjects, as might have been expected, is in our opinion done justice to. We very much doubt the necessity of such publications ; any practitioner, with an ordinary knowledge of physiology and its applications to practical medicine, will be able to solve for himself the difficulties which are here discussed, and thus render unnecessary a kind of book which will be eagerly seized on by a class of people who, from sheer ignorance or inborn vice, revel in the contemplation of such subjects as are here bespoken.

Circular sent to the Medical Schools by the Royal College of Physicians.—The following regulation has been issued by the Royal College of Physicians, and will come into force on October 1 next :—"That every candidate for the College licence be required to produce a certificate of having acquired proficiency in vaccination, signed by a teacher of vaccination appointed or recognised by the Local Government Board."

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY.

Tuesday, April 18.

Mr. George Pollock, F.R.C.S., President, in the Chair.

International Medical Congress.

The President invited members who intended going to the International Medical Congress at Philadelphia to send in their names to the Secretaries.

The late Mr. De Morgan.

The President then referred to the death of one of the Vice-Presidents of the Society, Mr. Campbell De Morgan. Those who had been connected with Mr. De Morgan, whether publicly or privately, must have highly appreciated his qualities as a surgeon, a scientific man, and a gentleman. The President had been intimately acquainted with him for many years; he was a man of large and warm heart, and few had looked more to the honour of the profession than he.

The members expressed their sympathy with the resolution that had been passed by the Council of the Society, conveying to the family of Mr. De Morgan their sense of the loss which the Society and the profession had sustained by his death.

Obstruction of the Bowels from Contraction of the Intestine.

Dr. Hilton Fagge exhibited this specimen. A girl of nine, who was said to have enjoyed good health previously, was taken with abdominal pain and retching thirteen days before her admission into Guy's Hospital. During the interval the bowels were once relieved by castor oil, but sickness continued up to admission. She was then sinking; the pulse was 112 and very feeble, and the body emaciated. The abdomen was distended and tympanitic; the coils of intestine could be mapped out through the walls, and frequent passing spasms brought these out more prominently. Stercoraceous matter was vomited the first afternoon and next day. Enemata were unsuccessful. Each day the visible coils came out on exposure, and manifestly always the same portion of bowel. It seemed probable, therefore, that some old peritonitis had bound the ileum to the abdominal wall. An enema was carefully given to the amount of twenty-eight ounces, when it was interrupted on account of much pain, and it was speedily ejected without fæces. Collapse followed, and death took place in the course of the same night. Post-mortem, acute peritonitis was found, but no rupture or ulceration, or other evidence of the injection having been the cause of death. The obstruction was evidently high. Various old adhesions were found between portions of intestine, and one adhesion, which was manifestly the cause of the obstruction was situated between the jejunum and the under surface of the liver. There was also some twisting of the bowels, and some caseous mesenteric glands were seen. Dr. Fagge said that this case belonged to a class of which few had been published, where the obstruction was due to the presence of a separate band, but to adhesion; he had called this "contraction" of the intestine. He had diagnosed the present case to be a chronic one essentially, although the history was acute; for he believed that the visible coils behind the abdominal wall were present in chronic cases only, signifying hypertrophy. A history of frequent abdominal pain, afterwards obtained, confirmed this. The value of this physical sign, if it were quite established, would be great, as it would bear on the question of operation for relief. As regards the collapse after a large enema, Dr. Fagge said that he had had a somewhat similar case some years ago, and that with but inconsiderable obstruction: here no such charge could be made.

Dr. Wilks said that Dr. Fagge had pointed out to him that when the coils were distinct in intestinal obstruction the case was a chronic one; and he believed it. Such condition was probably those of patients that had frequent attacks of obstruction, very severe, from which they with difficulty recovered. He had lately seen the case of a gentleman that died at forty-five of obstruction, and who had suffered from similar attacks from infancy. Chronic peritonitis was found post-mortem.

Mr. Godlee inquired whether one might expect to see the peristaltic action above the seat of obstruction only, or over the whole abdomen.

Mr. Wagstaffe suggested that thinness of the abdominal wall might render the movements more visible.

Dr. Fagge replied to Mr. Godlee, that the movements were general, because the distended portion filled a great part of the abdomen. To Mr. Wagstaffe, that the walls were not seldom thick in these cases. He believed, from all his experience, that there was not visible peristalsis in acute obstruction.

Injury to Head, with Chronic Hydrocephalus.

Dr. Pye-Smith related a case of this description in a man of thirty-five. At twenty-seven he had fallen into a saw-pit, sustained a scalp-wound, and been for two days "insensible." Although he recovered from this injury, his memory was always weak. Four years later a brick fell on his head, and again he sustained a scalp-wound, but there were no nervous symptoms. Eight weeks before his present admission he began to suffer from attacks of *petit mal*, becoming pale and unconscious, with twitching of the limbs, and he continued so for three months. Shortly before admission he had a severe epileptiform convulsion, and this was succeeded by others. He was brought in semi-comatose, and without any other definite nervous symptom beyond a very slow pulse, which never exceeded 68, and fell at times to forty. It was discovered that the aortic valves were diseased, and the heart generally hypertrophied from rheumatism; and of this disease the patient had an attack while under treatment, and died with pleurisy and cardiac symptoms. There was no special mental condition whatever, or other nervous symptom beyond the habitual slowness of the pulse. Post-mortem, the thoracic viscera were found diseased, as indicated. A remarkable condition existed in the brain: the convolutions were flattened by a collection of fluid in the ventricles, which amounted to fourteen ounces; the central parts were entire; the ependyma was not granular, nor the walls thickened; no obstruction existed in the aqueduct of Sylvius or about the veins of Galen. The arachnoid was thickened in places, but was not adherent. Under the right temporo-sphenoidal and parietal lobes were small rusty-looking spots, due to cerebral and meningeal hæmorrhage. The only other lesion was a fissure in the right side of the occipital bone, partially united, and extending into the temporal; this must have represented a large fracture. Dr. Pye-Smith added that the case was remarkable from the long continuation of large ventricular effusion without constant symptoms and with a history of double injury. Cases of chronic hydrocephalus were probably referable either (1) to obstruction, like ascites; or (2) to chronic catarrh of the lining membrane, as in the peritoneum also. Which of these was present here was doubtful; probably the latter. The fits seemed to correspond with the early stage of the effusion; after this the brain had accommodated itself, and yielded no symptoms beyond the slowness of pulse.

Acute Meningitis (?).

Dr. Crisp showed a specimen of acute meningitis from a girl of eleven. The patient fell one day before the symptoms began—headache, sickness, and fever. On the second day there was also delirium and screaming; the other symptoms and signs were chiefly negative. The child died unexpectedly. Post-mortem, pus was found generally and symmetrically in the pia mater, and some serum in the ventricles; nothing more. The child had been reported to have slight otorrhœa, but the temporal bones were found perfectly healthy. Dr. Crisp said the case was obscure as regards its cause and precise nature. The other viscera were not examined.

The President said that meningitis, independently of tuberculosis, was exceedingly rare in his experience, and he had never known a case of traumatic meningitis so rapid as the present.

Dr. Wilks criticised the imperfect history and record of the case, both intra-vitam and post-mortem; and

Dr. Crisp replied.

Fatty Tumour from a Fowl.

Dr. Crisp also exhibited a fatty tumour, weighing four ounces, from the breast of a fowl.

Disease of Intervertebral Substance, and Psoas Abscess.

Mr. McCarthy showed a specimen of this nature. The substance between two of the lumbar vertebræ presented a cavity lined by a false membrane, and communicating with a psoas abscess on either side. A railway porter sprained his back six months before admission; for five months he continued to work. When admitted he presented a large

abscess around the right hip, where grating was distinct. The abscess was punctured, and death followed in five hours. Post-mortem, the sac opened proved to be the extremity of a large psoas abscess. The hip-joint contained fetid pus. No communication could be traced between the two cavities. There was also a smaller abscess in the left psoas. The other viscera were healthy. Mr. McCarthy said that this instance might serve to explain the cases of cheesy masses in the psoas region without evident disease of the vertebræ. Early treatment might have been successful.

Mr. Marsh said that though the bone generally first suffered, the intervertebral substance was often affected. Respecting the burrowing of psoas abscess, he related a case where one had burst into the descending aorta; there was sudden increase in the size of the abscess, with symptoms of internal hæmorrhage; death next day, and confirmation of the diagnosis post-mortem.

Dr. Fagge asked whether the bursa near the joint did not serve as a communication between the two collections of matter.

Mr. McCarthy replied that from examination he could say that it did not.

Dr. Goodhart spoke of examples of communication between the hip-joint and psoas abscess. He also referred to specimens of disease of all the intervertebral fibro-cartilages without special symptoms. Strain was likely to beget such disease, and the fibro-cartilages were more likely than the bone to suffer.

The President related a case of rupture into the aorta like that of Mr. Marsh.

Communication between Vermiform Appendix and Rectum.

Mr. McCarthy also showed a specimen in which a free communication existed between these portions of the intestine as the result of ulceration. The patient died of broncho-pneumonic phthisis.

Obturator Hernia.

Dr. Goodhart exhibited a specimen of obturator hernia which had caused fatal obstruction. A woman of sixty-one was taken four years before her death with sudden pain in the left side of the abdomen after exertion; she was said to have had a hernia. In her last illness, at the age of sixty-five, she suffered at first from obstinate constipation, followed by abdominal pain, peristaltic movements, and distension. She was diagnosed to be suffering from chronic obstruction, and opium gave relief. She left the hospital, but was re-admitted in seven months with somewhat similar symptoms; there was now a double reducible femoral hernia. Opium gave temporary relief, but the pain and sickness returned, and proved fatal. There was never either symptom or sign of obturator hernia specially. Post-mortem, left obturator hernia was found; the greater part of the circumference of the bowel was included, and it was adherent to the sac. Death was due to peritonitis. Probably the hernia had existed at least six months. Operation would have been fruitless.

Bladder after Lithotomy.

Dr. Goodhart also showed the bladder of a boy of fourteen, dead from acute rheumatism, pericarditis, and pleurisy, who had been cut for stone at three years of age, and ever since had suffered with incontinence of urine. A scar was visible, and one seminal duct was obliterated. Dr. Goodhart asked why there should have been incontinence. The musculature of the bladder was normal microscopically.

Mr. Howard Marsh said that such cases occurred occasionally, where success was complete at the time, but unaccountable and incurable incontinence supervened.

The President confirmed this remark.

Ulceration of the Intestine from Strangulated Hernia.

Mr. Morrant Baker showed this specimen. A patient who had for many years had a double femoral hernia presented a strangulation of the right, which was large. There had been pain and vomiting for five days. Operation gave relief to the strangulation, but death followed in thirty hours. Post-mortem there was found extravasation of fæcal matter in the peritoneal cavity; no gangrene or ulceration of the bowel. A few feet above the seat of strangulation were several sloughy spots, of which one had given way; further up were some smaller ulcers. The other viscera were normal. Mr. Baker speculated on the nature of the ulcers, and was inclined to believe that their rupture was due to the strangulation, while the chronic hernia induced them originally.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, April 22.

Dr. Buchanan, President, in the Chair.

The minutes of the previous meeting having been confirmed, the following report of the Council was received and considered. The offer of the Aylesbury Dairy Company to place some of their sheds at the disposal of the Society, for the purpose of making observations on the effects of different articles of food on the quality of the milk, was approved. It was also agreed to alter the day for holding the meetings of the Society from Saturday to Friday, at 7.30 p.m., in the third week of each month from October to May inclusive, with a view specially to meet the convenience of extra-metropolitan members. The Council having considered a communication from the Northern Counties Association of Medical Officers of Health in reference to the closing of schools during the prevalence of infectious diseases, were of opinion that the proposal should be approved only so far as it referred to the reception of children at schools from infected houses. The proposal to license and place under compulsory supervision all day-schools was not thought desirable.

The President then read a memorial to be presented to Mrs. Letheby, expressive of the deep concern with which the Society had received the intimation of Dr. Letheby's death, and of sympathy with her in the domestic affliction which such a loss involved. The profession of sanitary medicine, and the Society more particularly, would be deprived of the services of one who had attained a high degree of eminence in all that relates to measures of sanitary reform.

The Best Practicable Method of Arresting and Extinguishing Scarlatina Epidemics.

Dr. Baylis, Medical Officer of Health for West Kent Combined Sanitary Districts, read a paper on this subject, an abstract of which is here subjoined:—Since the successful stamping out of the cattle plague in England some years ago, the possibility of achieving a similar result in many of the infectious disorders incident to man has excited increased attention. In particular, such diseases as scarlatina, measles, and small-pox, though theoretically admitted as capable under the original circumstances of being produced *de novo*, are nevertheless more and more believed to be now entirely carried on and maintained by infection only. Many causes have contributed to this view: a fuller knowledge of the different modes of infection, whether by the dejecta of the patient, the clothes he has worn, or the room he has inhabited; the limit now so often successfully imposed on infection in the dwellings of the well-to-do classes; the recognised power of disinfectants, of fumigation, and thorough cleansing. So favourable has the practicability of stamping out infectious disease appeared to various members of our profession, that a certain degree of public opinion has been formed, as is evidenced by the various proposals made for legally compelling the disclosure of all cases of infectious disease, with a view to their subsequent control and supervision. At page 10 of Dr. Baylis's Annual Report on the Sanitary Condition of Birkenhead for 1869, he wrote as follows:—"Some decisive and practicable method of arresting and perchance of extinguishing contagious and infectious disease has long been a desideratum, but yet remains an unsolved problem. The presumably requisite interference with the liberty of the subject, the gigantic proportions of the evil itself, and the slight chance of co-operation of an ill-informed public, are difficulties sufficient to deter the most sanguine legislator. For many reasons the class of ordinary fevers might be hopefully selected for this purpose; they affect mostly the indigent poor, they attack chiefly at the ages above childhood, and their dire effects on the family are justly dreaded—facts which render prompt and kindly aid the more facile of receipt, and sure of appreciation. No doubt the victims might go to the fever hospitals and workhouses, but the many have an invincible repugnance to do so, and any practicable method must not ignore their own feelings or that of their relatives on this point. The only way for these is to provide the fever-stricken patients immediately with relief and medical attendance at their own homes, with the addition of a kind-hearted, competent nurse, bringing in method and rule in her train." This was written seven years ago, and since then further experience leads to the conviction that far more can be accomplished by

kindly and efficient aid, promptly given, than by any legal enactments or *quasi* police supervision. In addition to this the proved value of disinfectants has removed many of the difficulties formerly existent, while the practicability of confining the infection to the individual attacked, which really involves an extinction of the disease, has been again and again demonstrated. The proposed method for stamping out scarlatina—and it applies equally to other infectious eruptive fevers—consists in providing a trained nurse at its earliest appearance in any place, whose duty it will be to visit infected households one or more times daily, to aid in and teach the proper nursing of the sick, to cleanse the room, disinfect the clothes and bedding, and supply waterproof or other things requisite for successful *ménage*. Also at the proper time to insure the final fumigation and first cleansing, which, in scarlatina, would be in one mouth after the last patient was attacked. She ought to have a special knowledge of disiufectants, and might be made the medium of providing any occasional seasonable, but not pauperising, help from without. Infectious disease is frequently and selfishly concealed, so as to escape trouble, to save the children their schooling, the father his work, the mother her charing or washing, or the house its visitor or lodger. It is the household and dwelling which society carelessly leaves to itself without the aid of guidance, knowledge, management, or sympathy, tbat scatters infection far and wide, and which ultimately exacts its penalty by costing the community a thousand-fold the money which would, in the first instance, completely have arrested it, to say nothing of all the attendant misery and suffering. A rapid sketch of the recent scarlatina epidemic in West Kent Sanitary District, as marked by its deaths, shows the ease with which the enemy would be encountered and arrested in its early stages. The district, it may be stated, includes seven unions, with the exception of four local board districts. It contains 97 parishes, and about 150,000 of population. No scarlatina death was registered in it during the last quarter of 1873. During 1874, six of the seveu unions received the scarlatina infection, causing twenty-four deaths. Only one escaped it, viz., Tenterden, a purely agricultural district, the furthest removed from Londou, and without railways withiu its boundaries. As regards the others, ample time was afforded for controlling the disease. The number of deaths registered during the succeeding year 1875 was, very briefly, as follows:—In Malling Union, 60; Bromley, 9; Maidstone, 11; Cranbrook, 6; Sevenoaks, 17; Tunbridge Town, 18; Tenterden still escaping. The deaths for the second year were thus 121, and for the two years 145, or nearly one per 1000 on the population. As a rule, disinfectants were very generally supplied, together with printed instructions for guidance. Iu many instances further disease appeared to be stopped by them where the people were intelligent, and in some cases where disinfecting nurses were employed, as at Town Malling, the result was an extinction of the infection. In others the means of promptly reaching fresh cases were wanting, and the disease was unchecked. In response to my application for Tunbridge Town, one nurse was supplied, who arrived from the Malling institution and commenced her duties on December 1, with sixty cases of the disease in twenty-three dwellings. Seventy new cases in twenty fresh dwellings were added during her first month, making in all 130 cases in forty-three dwellings. These numbers would require several nurses for effective supervision, and were obviously beyond the proper powers of one. Neverthcless, she worked indefatigably on, and with such success that in the succeeding months of January and February only fifteen more cases occurred in nine dwellings, and none from that time to her departure on March 20, at which time every patient was well or completely convalescent; all the infected dwellings had been fumigated and cleansed, and, where requisite, whitewashed; clothes and bedding disinfected, and in one or two cases destroyed. The effectiveness of these meaus is evidenced by the fact that no fresh case has occurred up to the present date (April 20), and no instance of infection to visitors heard of. Not a single death occurred after the nurse's arrival, although there had been sixteen before it, nor did this immunity arise from lack of bad cases. The problem to be solved involves two modes of procedure: one consists in the physical application of the scientific means for the control and destructiou of the infection; and the other to iusure the moral agency and influence requisite to overcome the ignorance, apathy, inaptitude, and perversity opposed to their successful application. The infected sick is placed, where possible, in a separate room freed from unnecessary furniture, and the atmosphere impregnated with carbolic acid. All excreta are received into disinfectants, and clothes aud linen into disinfecting solutions; the nurse's apparel regulated; unnecessary visitors and animals excluded; carbolic soap in full use. In one month from the date of the last seizure a general disinfection and cleansing of the room are effected, and the patient is no longer treated as infectious, except as regards the secretions, for which disinfectants are continued, whether as to dejecta or body linen, for a second month. Before the nurse had been a month in Tunbridge, there was a general wish for her assistance. The system, like any other based upon true principles, will pay handsomely in its results. If, for iustance, we take the value of the lives already lost in this epidemic at the lowest value assigned by the Registrar-General, the money loss computed on the meau scarlatina period of death is £840 for Tunbridge Town, or would amount to £8100 for the Combined District. Even if we confine ourselves to the mere sickness expenses, estimating them at only 5s. per case, and giving eleven non-fatal cases to one death, then the cost of sickness alone would be £45, a sum large enough to stamp out, if taken early, at least a couple of outbreaks.

In the debate following the paper, Dr. Jacob commcuced by expressing approval of the proposal of Dr. Baylis.

Dr. Woodforde, of Berkshire, had had some experience of the advantage of trained nurses for preventing the spread of epidemics in rural and urban districts. In one part of his district seventeen or eighteen cases of small-pox occurred; a nurso from West Malling was sent for, and no further cases happened after her arrival. The houses were all carefully fumigated, and the clothes disinfected. Duriug the past two months an outbreak of typhoid fever had occurred in a block of cottages; since the arrival of the nursc no further cases had occurred. If correctly understanding Dr. Baylis to say that no legal powers were necessary in order to compel occupiers of houses to send information of the existence of infectious diseases, he would, on the contrary, say that compulsory powers were most desirable for stamping-out epidemics. One town, in particular, in his district is very badly supplied with water, and there are also some badly constructed and densely populated courts, where fever was very prevalent. Latterly he had reported upon the existence of a few cases of fever dotted all over the town, the cause of which was very difficult to investigate. The public generally are very reckless and ignorant of the spread of fever. He had not yet had the experience of any large or general epidemic, but doubtless under such conditions good nursing would be found most beneficial.

Dr. Tidy had often called in the aid of a sisterhood in Islington, whose services as nurses he could get for nothing, and who do their work most efficiently.

The President highly eulogised the proposal of Dr. Baylis, and described it as a new sanitary agency for utilising some of the (at present) dormant powers for effectively controlling the spread of epidemics. It was a somewhat anomalous fact brought out by Dr. Baylis, that this method of nursiug was incidental to a Poor-law system, and that, in order to get the nursing carried out, he must make his people paupers first, and invalids afterwards. Wc must not undervalue the advantages of isolation in hospitals for controlling the spread of epidemics. Dr. Baylis seemed to suggest that we might perhaps do without the fever hospital iu many districts. We are commencing a new era of progress by initiating methods of carrying out efficient control of infectious fevers.

Dr. Baylis, in his reply, said that in the town of Tunbridge, immediately after the "hopping" season, an epidemic of scarlet fever broke out, happening as it did at the time when the children returning from the "hopping" were also returning to school after the usual autumn holidays. After some delay the local authority gave permission for the appointment of nurses. In all the cases visited by the nurse no further spread of fever occurred, except in one house, where, having ordered the wall-paper to be destroyed, it was not done, and two children coming from a distance took the disease. He was of opinion that anything proved to be a public benefit ought to be done at the public expense, and there should be no fear of pauperising the people, especially when we consider that the assistance rendered is at a time of sudden emergency, and when the people are quite unable to cope with the disease themselves. It would, no doubt, be very difficult to influence the local authority to incur the expense, but in this case example was better than precept, and proved a more powerful

lever than anything else. He did not attach any importance to one disinfectant more than another; in some cases he used carbolic acid, and in others chloride of lime or Condy. The nurse acquired extraordinary influence over the people. All parishes should have committees for superintending the arrangements. In the town of Sevenoaks, during a recent epidemic, efforts were made to oblige the poor to go to the hospital, but only three consented, and there were fifteen or sixteen deaths. Care should be taken to keep gossiping neighbours and relatives away from infected houses. The nurses, being careful, and wearing clean cotton dresses, did not spread the disease. He thought it undesirable to shut up schools. With due caution the "bread-winners" could carry on their business as before.

The proposed By-laws for regulating the Cowsheds and Dairies of the Metropolis were then considered, and carried with a few verbal alterations. They were ordered to be printed and circulated among medical officers of health. It was also agreed to send a copy of the By-laws to the President of the Local Government Board, with a letter expressing the willingness of the Society to appoint a deputation to wait upon him with a view to obtain immediate legislation.

Dr. Tidy, commenting upon the proposal of the Aylesbury Dairy Company, said he must give it most unqualified opposition; he considered it most undesirable that the farmers should be able to obtain exact information upon scientific grounds for their much cherished desire to reduce the standard of milk to the lowest possible point.

OBITUARY.

SIR WILLIAM ROBERT WILLS WILDE, Knt., M.D., F.R.C.S.I.

It becomes our painful duty to record to-day another grievous loss sustained by the Irish School of Medicine and Surgery. As briefly announced in a former number, Sir William Wilde died on the afternoon of Wednesday, the 19th ult., at his residence, Merrion-square, Dublin. He had been in failing health for several months, so that the sad news that he was dead came not on any by surprise, although the feeling of regret it occasioned was none the less poignant; for he occupied a foremost place in the medical, scientific, and social circles of Dublin, and was esteemed not only for his rare professional attainments, but for his genial social qualities.

Sir William Wilde was the son of the late Dr. Thomas Wilde, an eminent provincial physician. He was born in 1815, at Castlerea, co. Roscommon, so that he was sixty-one years of age at the time of his death. In 1832 he commenced his professional studies, and was bound apprentice to the late Dr. Abraham Colles, father of the present Regius Professor of Surgery in the University of Dublin. Shortly afterwards he became resident pupil in Steevens' Hospital. In 1837 he obtained letters testimonial from the Royal College of Surgeons, Ireland, and in the same year went on a voyage of nine months' duration as surgeon on board the yacht *Crusader*, in charge of an invalid patient. On his return he wrote an account of his voyage, entitled "The Narrative,"—a work which laid the foundation of the author's future literary fame.

Mr. Wilde now devoted himself more exclusively to the study of ophthalmic and aural surgery, and, to perfect his knowledge of these branches of scientific medicine, he left Ireland to visit the hospitals of London, Berlin, and Vienna. In 1841 he commenced to practise in Dublin as an oculist and aurist, and, in a comparatively short space of time, his splendid reputation was made. Moved as well by a genuine humanity as by a master's love of his art, he at an early period founded an ophthalmic dispensary, which ultimately developed into St. Mark's Ophthalmic Hospital, in Lincoln-place, Dublin. To this institution, which still flourishes as a noble and lasting memorial of its founder's fame, large numbers of patients and of pupils were speedily attracted. In 1844 Mr. Wilde became a Fellow of the Irish College of Surgeons.

In February, 1846, the first number of the second series of the *Dublin Quarterly Journal of Medical Science* appeared under the editorship of Mr. Wilde. The "Editor's Preface" to that number is far more than what one would suppose it to be from this modest title. It is an able historical account of periodic medical literature in Ireland. It embraces a period of 200 years, and includes most interesting notices of the various medical and philosophical societies which flourished in Dublin from time to time. Mr. Wilde continued to edit the *Dublin Journal*, as it is familiarly called, for several years, and under his judicious management it attained a first rank as a medical periodical. We may here state that Sir William Wilde was a writer of no mean order of merit. As a biographer he rendered great services to his profession by recording the labours of some of its most distinguished members. Thus to the pages of the *Dublin Journal* he contributed memoirs of Drs. David McBride, Bartholomew Mosse (the founder of the Rotunda Lying-in Hospital), John Rutty, Samuel Wilmot, John Oliver Curran, and William Griffin, of Limerick. In the *Dublin University Magazine*, also, "The Gallery of Illustrious Irishmen" owed several contributions to the same facile pen, notably the memoir of Sir Thomas Molyneux, Bart., M.D., F.R.S., who was a Fellow of the King and Queen's College of Physicians, and Professor of the Practice of Physic in the University of Dublin in 1717. His contributions to antiquarian lore and archæology were both numerous and valuable. His works of travel, such as "The Narrative" (already referred to), "Voyage to Madeira," "Beauties of the Boyne and the Blackwater," "Lough Corrib," etc., are eminently graphic and entertaining. And, lastly, his medical writings, such as those on "Epidemic Ophthalmia" (1851), "The Physical, Moral, and Social Condition of the Deaf and Dumb" (1854), "Malformation of the Organs of Sight" (1862), "Aural Surgery" (1853)—for many years the standard work on the subject in this and other countries—and "Infant Leucorrhœa" (1854), complete the testimony to his ability and the versatility of his genius.

To resume: one of the most important labours of Mr. Wilde's life was now to be undertaken. In 1851 he was appointed Assistant-Commissioner of the Census of Ireland for that year, and it is no discredit to his colleague Mr. Donelly, the Registrar-General, who was the Chief Commissioner on that as on subsequent occasions, to say that without Mr. Wilde's assistance the elaborate report on the tables of death of that Census would have lost much of its historical and statistical value. That report concludes with these words:—"In bringing to a conclusion this voluminous report, extending over nearly the entire range of Irish history, and embracing the most memorable period which the social state of the country has presented in modern times, we feel that, although we have not fulfilled all which this vast subject demands, still that we have afforded a fair analysis of the history of disease, endeavoured to extend the boundaries of science, and have shown the great necessity for a general registration of deaths in this, one of the few countries in Europe at present deprived of that most important advantage."

Many years elapsed before this recommendation of the Commissioners was carried into effect, and we may fairly assign to Sir William Wilde and his *collaborateur* the credit of securing for Ireland the benefit of death-registration. In 1861 he was again appointed Assistant Census Commissioner by the Earl of Carlisle, who was then Lord Lieutenant. On the publication of the Commissioners' Report in 1864, Mr. Wilde received the honour of knighthood from Lord Carlisle, "to mark the sense of services rendered to statistical science, especially in connexion with the Irish Census." In the same year the University of Dublin conferred upon Sir William the degree of Doctor of Medicine, *honoris causâ*. Several learned bodies on the Continent also recognised his attainments by forwarding to him honorary diplomas; but the greatest honour of all had been conferred upon him so early as 1853, when her Gracious Majesty the Queen appointed him her Surgeon-Oculist-in-Ordinary in Ireland—the first appointment of the kind ever made in the sister-country. In 1857 he presided over the Ethnological Section at the Dublin meeting of the British Association, and in 1874 he read a paper on "Irish Ethnology" at the Belfast meeting of the same Association. In 1873, the Royal Irish Academy awarded him the Cunningham Gold Medal—the highest distinction it was in their power to give. And so, honoured at home and abroad, within and without his own profession, he lived an earnest, useful, and honourable life.

Of Sir William's social qualities it is not for us to speak at length; suffice it to say that he was as fortunate in his home life as in his public career. In 1851 he married Jane Francesca, daughter of the late Archdeacon Elgee, a lady then and now well-known as the gifted, accomplished, and patriotic "Speranza." For twenty-five years Sir William and Lady Wilde dispensed a genial and constant hospitality, not only to their countrymen, but to visitors from all parts of Europe

and America, and his death will leave a sad gap in the social circles of Dublin. As a politician, Sir William was a Liberal-Conservative, with Nationalistic proclivities.

The funeral took place on Saturday, April 22; it was one of the largest which has occurred in Dublin for many years. The officers of the Royal Irish Academy attended in State, and the Presidents of the Colleges of Physicians and Surgeons, the Right Honourable the Lord Mayor, and a host of friends were also present. The chief mourners were Mr. William C. K. Wilde, barrister-at-law, and Mr. Oscar F. Wilde, sons of the deceased.

LOUIS TRAUBE.

In addition to the particulars concerning this great clinician which we published last week, we transcribe the following communication from an intelligent correspondent of the *Gazette des Hôpitaux*:—

Louis Traube was born at Ratibor, a little town in Prussian Silesia, January 12, 1818, and left the gymnasium of his native town to pursue his studies at the Breslau University in 1835, going thence to Berlin in 1837, where he studied medicine under such eminent teachers as J. Müller, Dieffenbach, Wagner, Meyer, etc. He took his degree in 1840, having presented a dissertation which contained an elaborate investigation of dyspnœa and pulmonary emphysema. Passing his State examination in 1841, he then made several scientific excursions in Europe, and especially to Paris and Vienna, with the especial object of studying at these great Faculties the best methods of physical investigation applied to medicine. Returning to Berlin he met with many annoyances, and his progress was surrounded with difficulties; and, indeed, but for the revolution of 1848, it is certain that this eminent clinician would never have attained any but a secondary position among the teachers of the University. Traube was a Jew, and for that reason he found the doors of the University closed against him from 1841 to 1848; and he was obliged to deliver private lectures without even being a *privat-docens*. The revolution of 1848, however, dispersed a whole assemblage of offensive restrictions and absurd prejudices regarding Jews, from which the country of Frederick the Great, the philosopher-king, was not more exempt than Catholic Austria. Traube then became assistant in Schönbein's clinique at the Charité, and a *privat-docens* in the University. In 1853 he became Physician to the Hospital, and a director of a propædeutic clinic. A "propædeutic clinic" in the German universities is a medical service in which the students are prepared by an elementary study of pathology for attendance upon the superior clinics. The professors upon whom this teaching devolves have to instruct the students in the handling of the patients, and in the practice of the various physical and chemical means of diagnosis. Traube's clinic became famous all over Germany, and seemed to justify in the eyes of many the utility of a mode of teaching which, in the opinion of others, is but a useless machinery, a simple imitation of the ordinary clinics concealed under a high-sounding name—in fact, what remains for the ordinary clinical professor, when, in order to make them an object of a special course, all that relates to the examination of the patients and the methods of diagnosis are abstracted. In 1857 the *privat-docens* was made an extraordinary, and in 1872 an ordinary professor, retaining the propædeutic clinic until his death. In spite of the pulmonary affection from which he suffered, Traube continued working till the last, having given his hospital clinics during this last winter. He died on April 11, and was buried according to the rites of his persuasion.

The losses which the Berlin University has incurred during the last few years have been very great; and now the name of Traube has to be added to those of Caspar, Remak, Griesinger, Graefe, Mitscherlich, Romberg, and Martin.

THE VICTORIA-PARK CHEST HOSPITAL.—The twenty-eighth anniversary festival of the City of London Hospital for Diseases of the Chest was held at the London Tavern last week. In the absence, through illness, of Mr. O. E. Coope, M.P., Mr. J. Coope Davis presided at the dinner, to which about 250 guests sat down. After dinner the Secretary read a list of subscriptions amounting in the aggregate to £2580, including a donation of £100 from Mr. O. Coope, and several contributions of £100 to £200 from working men's societies at the East-end.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—At the First Commencements of Trinity Term, held on Saturday, April 22, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred:—

Baccalaurei in Chirurgiâ.—Johannes Lane and Samuel Warren.
Baccalaureus in Medicinâ.—Johannes Lane.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted as Fellow on April 27, viz.:—

Charles, Thomas Edmonston, M.D. Edin., Calcutta.

The following gentlemen were admitted Members:—

Bennett, Alexander Hughes, M.D. Edin., 18, St. George's-terrace, S.W.
Oliver, George, M.D. Lond., Harrogate.
Park, William, M.D. St. And., 20, Endsleigh-street, W.C.
Sangster, Alfred, M.B. Camb., Guy's Hospital, S.E.
Skerritt, Edward Markham, M.D. Lond., Clifton.
Smith, Richard Thomas, M.D. Lond., 21, Haverstock-hill, N.W.
Sturge, William Allen, M.D. Lond., National Hospital, Queen-square, W.C.

The following gentlemen were admitted Licentiates:—

Bott, Henry, St. Bartholomew's Hospital, E.C.
Buckell, Ernest Hook, 6, Harrington-street, W.C.
Burton, Herbert Campbell, Lee-park Lodge, S.E.
Don, Arthur Gorbutt, 56, Porten-road, W.
Fowler, James Kingston, King's College Hospital, W.C.
Henley, Edward Whishaw, Belgrave Hospital, Winchester-street, S.W.
Horner, Arthur Claypon, St. Bartholomew's Hospital, E.C.
Hutton, Edwin Rutherford, 87, Lever-street, E.C.
Llewellyn, Rees Ralph, 152, Whitechapel-road, E.
Makins, George Henry, Bethlem Hospital, S.E.
Newman, John Jepson, Guy's Hopital, S.E.
Pearse, Joshua Sydney, University Hospital, W.C.
Pratt, William Thomas Cassel, Newport, Monmouthshire.
Rogers, Thomas King, 186, Southgate-road, N.
Shadwell, St. Clair Brockway, Walthamstow.
Shann, Frederick, 42, Halsey-street, S.W.
Sloman, Herbert, Farnham.
Smyth, Spencer Thomas, 6, Tyson-road, S.E.
Swanwick, Eustace Maclean, Greenheys, Manchester.
Walker, Horace, 16, Tavistock-street, Bedford-square, W.C.
Watson, Percival Humble, Sunderland.
Williams, Philip Henry, Royal Infirmary, Windsor.
Winckworth, Charles Edward, South-end-road, N.W.
Winship, William Lionel, Newcastle-on-Tyne.

The following candidates, having passed in Medicine and Midwifery, will receive the College licence on obtaining a qualification in Surgery recognised by this College:—

Batchelor, Henry Thomas, 17, Bancroft-road, E.
Buckell, Leonard Martin, 14, Holford-square, W.C.
Collier, Herbert, Bohemia House, Turnham-green, W.
Makuna, Manikji Dosabhai, 85, Ladbroke-road, W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 1st inst., and when eligible will be admitted to the pass examination:—

Biggs, John M., student of University College.
Colenso, John R., of St. Bartholomew's Hospital.
Flint, Arthur, of St. Bartholomew's Hospital.
Fulford, John, of University College.
Giffard, Henry E., of St. Bartholomew's Hospital.
Griffiths, Owen, of Guy's Hospital.
Hammond, Alexander B., of Guy's Hospital.
Herschell, George A., of St. Thomas's Hospital.
Hyde, Samuel, of King's College.
Maxwell, Charles M., of University College.
Moberly, Herbert J. R., of King's College.
Ward, George J., of St. Bartholomew's Hospital.
Wells, Alfred G., of Guy's Hospital.

The following gentlemen passed on the 2nd inst., viz.:—

Bousfield, Edward C., student of St. Bartholomew's Hospital.
Brock, John, of Guy's Hospital.
Campbell, John M., of St. Bartholomew's Hospital.
Cock, Morris F., of Guy's Hospital.
Davies, John, of Guy's Hospital.
Francis, William, of University College.
Hart, Alfred P., of St. Bartholomew's Hospital.
James, Herbert E. R., of Charing-cross Hospital.
Morgan, Charles J., of St. Bartholomew's Hospital.
Penny, Edward, of Guy's Hospital.
Teevan, Alfred, of King's College.
Tuke, William S., of University College.

Sixty-three candidates out of the 148 examined having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months. The next primary examination will take place this day (Friday), and be continued through the ensuing week.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 27:—

Boys, Arthur Henry, Brixton-hill, S.E.
Crowther, William Harding, Ealing, W.
Greenwood, Arthur, Chipping Norton.
Livesey, Ernest William, Duke-street, Portman-square.
Lloyd, David, Newcastle Emlyn.
Moore, Charles Arthur, Thetford, Norfolk.
Palmer, Francis Craddock, Weston-super-Mare.
Potts, Lawrence, The Avenue, Beckenham.
Rigby, William Bradshaw, Sutton, near St. Helen's.

The following gentlemen also on the same day passed their primary professional examination:—

Earle, Joseph Herbert, Guy's Hospital.
Parry, George Hales, Guy's Hospital.
Lawless, Edward James, London Hospital.
Lewis, Thomas Hope, St. Bartholomew's Hospital.
Robertson, George Scott, Westminster Hospital.
Stacpoole, Charles Aitken, Westminster Hospital.

At the Preliminary Examination in Arts held at the Hall on April 28 and 29, 62 candidates presented themselves, of whom 21 were rejected, and the following 41 passed and received certificates of proficiency in general education, viz., in the first class, in order of merit:—

Howard Bendall, Thomas F. Fullard, John Alfred Gray, Thomas Underwood Gray, Frank Octavius Hodson and Peter Pigott (equal), John Octavius Slipper, Charles Cooper, Ben Hall and Archibald T. G. Heath (equal).

In the second class, in alphabetical order:—

R. M. E. Atthill, G. R. Beardmore, H. J. Blakesley, M. G. Clark, E. Cotterell, H. M. Dancy, C. S. Dezvete, F. Epps, F. J. Golding, H. St. David Griffiths, F. Hewkley, H. Hodgson, L. G. P. Holmes, R. M. Hughes, J. C. R. Husband, A. H. Jackson, T. B. Jacobson, W. Knott, S. R. Lidiard, J. H. Macadam, T. E. Nöding, J. G. O'Neill, C. R. Owen, F. F. Penno, H. S. Robinson, H. G. Shore, J. Tucker, T. K. Whitehead, A. J. Williams, John Williams, and L. W. Wilson.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BROWN, THOMAS LLOYD, M.R.C.S. Eng. and L.S.A.—House-Surgeon to Warneford Hospital, Leamington, *vice* Dr. Geo. Wyndham Crowe, M.B., resigned.

BURTONSHAW, THOMAS, M.R.C.S. Eng.—Second Assistant Medical Officer and Dispenser, Essex Lunatic Asylum.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—The announcement contained in the *London Gazette* of December 24 last, and of March 21 last, of the retirement of Fleet-Surgeon Frederick William Blake, M.D., and of his promotion to the honorary rank of Deputy Inspector-General of Hospitals and Fleets in her Majesty's Fleet, are to be considered as cancelled.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon James Magill, M.D., to be Surgeon Coldstream Guards, *vice* Surgeon-Major J. W. Trotter, appointed Battalion-Surgeon Scots Fusilier Guards.

COLONIAL OFFICE.—MEDICAL DEPARTMENT.—Valesius Skipton Gouldsbury, M.D., Surgeon in the Army, and now serving in the Gold Coast Colony, to be an ordinary member of the Third Class or Companion of the most distinguished Order of St. Michael and St. George.

BIRTHS.

ASHBY.—On April 27, at Vine House, Grantham, the wife of Alfred Ashby, M.B. Lond., F.R.C.S., of a son.

CONRY.—On April 26, at 1, Royal-terrace, Southsea, the wife of Thomas Conry, Surgeon R.M.A., of a daughter.

FIDDIAN.—On April 30, at 6, Brighton-terrace, Cardiff, the wife of A. P. Fiddian, M.B., of a son.

FINNY.—On April 22, at 19, Lower Baggot-street, Dublin, the wife of J. Magee Finny, Esq., M.D. Univ. Dub., of a son.

JONES.—On April 22, at Ty-Mawr, Aberdare, the wife of Evan Jones, of a son, stillborn.

LEWIS.—On April 23, at 2, Gordon-square, the wife of Dr. Waller Lewis, of a son.

LYONS.—On April 5, at Midnapore, Calcutta, Mrs. Lyons, wife of Surgeon-Major R. T. Lyons, of twins—a son and daughter. The daughter was stillborn.

STOCKER.—On April 30, at Peckham House, Peckham, the wife of Alonzo H. Stocker, M.D., of a son.

WILLS.—On April 25, at Kennington, the wife of Charles Wills, M.D., of a daughter.

MARRIAGES.

ADAMS-CREAM.—On April 27, at the Church of St. Mary the Virgin, Putney, Arthur, youngest son of John Adams, Esq., of Spencer House, Putney, and Riverbank, Staines, to Louisa Georgina, daughter of Robert Chevallier Cream, M.D., of Melford House, Putney.

ARTHUR—TURNCOCK.—On April 25, at St. Mary's, Bryanston-square, William Creswell Ernest, only son of William Arthur, Capt. R.N., to Annie, second daughter of the late Richard Turncock, M.R.C.S, of Leek, Staffordshire.

EVANS—CHANCE.—On April 25, at Edgbaston parish church, George Harrison Evans, M.B., F.R.C.S., son of the late Dr. Evans, to Agnes Louisa, elder daughter of Robert L. Chance, Esq., of Chad-hill, Edgbaston.

KIERNARY—BARBER.—On April 29, at St. Michael and All Angels, Ladbroke grove-road, North Kensington, Michael Francis Houghton, son of Francis Kiernary, late Surgeon in Her Majesty's Royal Navy, to Lucy Elizabeth, third daughter of Thomas Barber, of Northumberland-park, Tottenham.

LESLIE—DAVENPORT.—On April 25, at Bentworth, Hants, Edward James Louis, eldest son of Louis Leslie, M.D., of Amery House, Alton, to Bertha, third daughter of the Rev. T. C. Davenport, rector of Skeffington, Leicestershire.

MORGAN—FARREN.—On March 29, at St. Saviour's, Highbury, William Taylor Morgan, M.D., of Trefenai, Carnarvon, eldest son of the late John Morgan, Esq., of Old Bank, Carnarvon, to Jane, youngest daughter of the late George Farren, Esq., of London, barrister-at-law.

O'BRIEN—NASH.—On April 26, at St. James' Church, Spanish-place, James H. Archer O'Brien, M.R.I.A., eldest son of the late Francis Edward O'Brien, F.R.C.S., of St. Brendan's, Rathmines, County Dublin, to Bertha, youngest surviving daughter of the late Daniel Nash, of 4, York-gate, Regent's-park.

WOODFULL—TAYLOR.—On April 27, at St. Mary's, Bryanston-square, S. P. Woodfull, Surgeon-Major 18th Brigade, Royal Artillery, to Jane, eldest daughter of Colonel Robert Taylor, late of H.M's. Second Madras Light Cavalry.

DEATHS.

DAVIDSON, ANNE, wife of Thomas Davidson, M.D. Oxon., on April 24, at Shaftesbury House, Bayswater.

DAVIS, ANNIE MARGARET, wife of Surgeon-Major Wm. Farquhar Davis, Acting Zilla Surgeon, on March 28, at Coimbatore, Madras Presidency.

DIGBY, EDWARD, M.R.C.S., L.&M.S.A., late of 1, Lower Belgrave-street, S.W., on April 30, at the residence of his friend, Mr. Keyes, 25, Hunter-street, Brunswick-square, W.C., in his 69th year.

EDWARDS, MARY WEIR MACKENZIE, only daughter of the late Alexander Mackenzie Edwards, surgeon, Edinburgh, and granddaughter of the late Robert Chambers, LL.D., of St. Andrews, on April 3, at Half-way-Tree, Kingston, Jamaica, aged 19.

EMSON, CHARLES GEORGE, youngest child of Alfred Emson, surgeon, on April 24, at Dorchester, aged 23 years.

MASON, JAMES, M.D., formerly of St. Anne's, Montreal, on April 25, at Sunnyside, Ayr, N.B., aged 81.

RUST, HENRY, M.R.C.S., of Wethersfield, Essex, on April 28, aged 59.

WADE, WILLIAM GEORGE, son of the late Robert Wade, F.R.C.S., on April 26, at 83, Finborough-road, South Kensington, in his 31st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

DURSLEY UNION.—Medical Officer. Applications, with testimonials, to George Wenden, Clerk to the Guardians, on or before May 17.

GUISBOROUGH UNION.—Medical Officer of Health. Applications, accompanied by testimonials, and stating the qualifications of the applicant, to Arthur Buchanan, Clerk, on or before May 8.

LEICESTER INFIRMARY AND FEVER HOUSE.—House-Surgeon and Apothecary. Candidates must be a Fellow or Member of the College of Surgeons of London, Edinburgh, or Dublin; and also a Licentiate of the Royal College of Physicians, London, or of the Apothecaries' Company of London, and shall have been registered under the Medical Act. Original testimonials addressed to T. A. Wykes, Secretary, 24, Friar-lane, Leicester, on or before Monday, May 8.

LEICESTER UNION.—Medical Officer. Applications, with testimonials, to B. G. Chamberlain, Clerk, on or before May 16.

LONDON FEVER HOSPITAL.—Two Assistant-Physicians. Candidates must be Fellows or Members of the Royal College of Physicians, London. Applications, with testimonials, to the Secretary, at the Hospital, Liverpool-road, Islington, not later than May 9.

NORTHAMPTON GENERAL INFIRMARY.—Dispenser. Applications, accompanied by recent testimonials, to be sent to the Secretary, not later than May 8.

ROYAL INFIRMARY, LIVERPOOL.—Medical Superintendent. Candidates must be married. The Committee are desirous of engaging a gentleman whose wife could undertake the office of Matron. Applications, stating ages, number of family, etc., must be sent in on or before May 20.

STOCKPORT INFIRMARY.—Assistant House-Surgeon. Candidates must be registered, and have double qualifications. Applications and testimonials to S. W. Wilkinson, Hon. Secretary.

QUEEN'S HOSPITAL, BIRMINGHAM.—Two House-Surgeons. Salary £50 per annum, with board and lodging. Original testimonials and certificates of registration must be sent to the Secretary, on or before May 26.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Salary £100 a year, with board, washing, and furnished apartments. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and Licentiates of the Apothecaries' Company, London. Testimonials, under cover and sealed, to the Chairman of the Medical Committee, not later than Saturday, May 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bingham Union.—The East District is vacant; area 19,122; population 4386; salary £40 per annum.

Saffron Walden Union.—Mr. A. D. Madden has resigned the Fourth District; area 5270; population 1515; salary £38 10s. per annum.

Spilsby Union.—Dr. Maxwell has resigned the Stickney District; area 13,602; salary £36 per annum.

Wokingham Union.—Mr. E. Weight has resigned the Wokingham District; area 18,565; population 6172; salary £90. Also the Workhouse; salary £30 per annum.

APPOINTMENTS.

Bingham Union.—Henry Williams, M.R.C.S. Eng., L.R.C.P. Lond., to the West District.

Devonshire.—Alexander W. Blythe, M.R.C.S. Eng., L.S.A., as Analyst for the County for one year.

Lancaster Union.—Thos. H. Tidswell, M.R.C.S. Eng., L.S.A., to the Morecambe District.

Thrapston Union.—Joseph H. Hemming, M.R.C.S. Eng., L.S.A., to the D District.

ST. PATRICK'S HOSPITAL, DUBLIN.—On Monday, May 1, Dr. William Thornley Stoker, the newly elected Professor of Practical Anatomy in the Royal College of Surgeons in Ireland, and Surgeon to the Richmond Hospital, was appointed Surgeon to this institution, which is commonly known as "Swift's Hospital for Lunatics and Idiots."

ACADÉMIE DE MÉDECINE.—At its last meeting the Academy elected a new member into the Section of Medical Pathology. The Committee placed the candidates in the following order:—1. Professor Lasègue; 2. Dr. Jaccoud; 3. Dr. Péter; 4. Dr. Maurice Raynaud; 5. Drs. Bucquoy, and Alfred Fournier. The number of voters present was seventy-four, and Professor Lasègue, having received forty-two votes, was elected.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Council, held on Thursday, the 27th ult., Dr. William Thornley Stoker was appointed one of the Professors of Practical and Descriptive Anatomy, in the room of Dr. John Morgan, deceased. Dr. Thornley Stoker is one of the Surgeons to the Richmond Hospital, and Professor of Artistic Anatomy in the Royal Hibernian Academy. He is a Fellow of the Royal College of Surgeons in Ireland, and was formerly Surgeon to the City of Dublin Hospital.

THE MEDICAL MEMBERS OF THE CHAMBER OF DEPUTIES.—These members have determined to form themselves into a special club or society, independently of their political views. Twenty of the forty-four have already joined, and have elected Dr. Laussedat as President, and Dr. Liouville as Secretary. Immediately after the vacation they will hold regular meetings for the consideration of all subjects relating to public health and hygiene; and no doubt several bills upon these important matters will be initiated by them.—*Union Méd.*, April 25.

A. VON GRAEFE'S EYE-CLINIC.—A provision of the will of A. von Graefe ordered that his immense eye-clinic at the end of Karlstrasse should be abandoned. The request was complied with, and there is now an ordinary *destillation*, or liquor-shop, upon its site. The result is, that as one stands at the corner of Karlstrasse and Louisenstrasse one may see no less than five eye-clinics conducted under the auspices of the assistants of the renowned oculist. There are thirteen eye-clinics in Berlin, but these five are the direct result of von Graefe's work in that part of Berlin.—Correspondent of *Boston Journal*, Feb. 17.

THE LEVÉE.—By command of the Queen a *levée* was held at St. James's Palace, by H.R.H. the Duke of Edinburgh, on behalf of her Majesty, when the following presentations of members of our profession were made to his Royal Highness, viz.:—Mr. William Adams, F.R.C.S., by Major W. E. Cadman; Surgeon C. W. S. Deakin, of the Bengal Medical Staff, by the Secretary of State; Dr. Brodie Sewell, by the Secretary of State; Surgeon T. W. Thompson, of the Army Medical Department, by the Adjutant-General. The following gentlemen also attended the *levée*, viz.:—Deputy Inspector-General Jee, C.B., V.C.; Drs. Hamilton and Mouat; and Messrs. A. Cooper and Prescott Hewett.

MEATH HOSPITAL, DUBLIN.—The annual distribution of prizes at the close of the winter session took place in the theatre of this institution on Friday, April 28. The medical prizes were distributed by Dr. Arthur Wynne Foot, and the surgical prizes by Mr. G. H. Porter, Surgeon to the Queen in Ireland. The following candidates were successful:—For the Hudson Case Prize:—1st, Mr. Collins and Mr. Inman (equal); 2nd, Mr. Flanagan. For the Medical Class Prize: 1st, Mr. Henry A. Davison; 2nd, Mr. Fitzgerald and Mr. Flanagan (equal). For the Senior Surgical Prize: Mr. M. Dundon. For the Junior Surgical Prize: Mr. R. Gordon. Certificates of having acted as clinical clerks in the medical wards during the past session were also presented to Mr. Gilbert Lynch, Mr. John Christal, and Mr. Sidney Taylor.

AT the last annual election of Fellows into the Council of the College of Surgeons, 222 recorded their votes, viz., 167 metropolitan, and fifty-five provincial Fellows.

UNIVERSITY OF LONDON.—The following examiners for 1876-1877 were elected at the meeting of the Senate held this week:—Practice of Medicine—Professor Wilson Fox, M.D., B.A., F.R.S., and Charles Murchison, Esq., M.D., LL.D., F.R.S. Surgery—John Cooper Forster, Esq., M.B., and W. S. Savory, Esq., M.B., F.R.S. Anatomy—George W. Callender, Esq., F.R.S., and Professor John Curnow, M.D. Physiology, Comparative Anatomy, and Zoology—George J. Allman, Esq., M.D., LL.D., F.R.S., and Professor William Rutherford, M.D., F.R.S.E. Obstetric Medicine—J. Hall Davis, Esq., M.D., and Professor W. S. Playfair, M.D. Materia Medica and Pharmaceutical Chemistry—T. Lauder Brunton, Esq., M.D., D.Sc., C.M., F.R.S., and Professor Sydney Ringer, M.D. Forensic Medicine—Professor Arthur Gamgee, M.D., F.R.S., and Professor Henry Maudsley, M.D.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. F. L. de Lisle is advised to communicate with Dr. Francis Hawkins, the courteous Registrar of the General Medical Council.

The Conjoint Scheme.—Some of our readers who take an interest in the matter will perhaps be surprised to hear that since the College of Surgeons has given in its adhesion to the scheme, a hitch has occurred where it was least expected.

A Citizen.—Garden squares sprang up in London about 150 years ago. Previously the open spaces were negligently kept, and became the dust-heaps of their respective neighbourhoods.

Pulv. Jacobi.—In one of his letters, Walpole, speaking of an early illness of George III., who was blooded seven times, and had three blisters, says that he (Walpole), having no physician-in-ordinary, was cured in four night by "James's Powder," without bleeding, etc.

Associate, King's College.—Sir William Fergusson, F.R.S., is the first baronet, created in 1866. He has two sons and three daughters.

L. M.—It is very doubtful when you can be examined for the licence in Midwifery, as the vacancies caused by the resignation of the Board have not been filled up.

Archæologist.—Dr. Doran gives an interesting account of the last days of Queen Caroline, wife of George II., from which it is very clear that she died of hernia. On November 9, 1737, the Queen was seized with the illness which ultimately proved fatal to her. She was distressed with violent internal pains, which "Daffy's Elixir," administered by Dr. Tessier, could not allay. Later in the day we learn that cordials and various calming remedies were prescribed, and while they were being prepared, a little "usquebaugh" was administered to her; but neither whisky nor cordials nor calming draughts could be retained. To aid Dr. Broxholm, who had hitherto prescribed for the Queen, Sir Hans Sloane and Dr. Hulse were called in, who prescribed blisters to the legs. At last, and when too late, surgeon Ranby was called in. When the Queen directed his hand to the spot where she said she suffered most, like the skilful man that he was, he contrived at the same moment to satisfy himself as to the existence of the more serious complaint, and then spoke to the King in a subdued voice. The Queen immediately suspected what had taken place, and, ill as she was, she railed at Ranby for a blockhead. It was Ranby who presented the large silver cup to the College of Surgeons.

VACCINATION IN CHINA.

From an official report it appears it was in the old days of the East India Company that vaccination was introduced at Canton by Sir George Staunton and Mr. Pierson, an English surgeon. Since then about sixty-six years have elapsed, and the practice of vaccination is slowly working its way in the country. In the neighbourhood of Pekin it is gradually supplanting inoculation; but it is left to private enterprise. Often the vaccine lymph has failed, and new supplies have been obtained from an English resident physician by the native operators. In the absence of tubes it used to be the custom for the native vaccinators to take the children of the poor with them in a cart to the houses of the rich, who preferred to have their infants vaccinated at home from the arms of poor children, rather than have them taken to the public vaccinating institution. The native institutions in Pekin, four or five in number, which existed there previous to the arrival of European physicians, were founded by benevolent men returning from Canton, where they had held office for some years. Sir G. Staunton's tract was reprinted, but the name of England and of the discoverer of vaccination were omitted, probably at the time of the last war. The metropolitan vaccinators are appointed by a committee of gentry, and a small fee is charged for each child. In the country private vaccinators go where they please, and in some districts they charge very high fees for the privilege of vaccination. No law or usage interferes with them, and if they demand twice as much for operating on a boy as on a girl, public opinion is in no way outraged. It is the habit of the people to value boys more than girls, and the vaccinator takes advantage of this. Prejudice against foreign ways and opinions is gradually breaking down. All over Mongolia the physicians are Lamos, educated in the Buddhist colleges and monasteries, where there is a medical course.

COMMUNICATIONS have been received from—

Messrs. Van Wyk and Co.; Mr. H. K. Lewis, London; Dr. H. Sutherland, London; Messrs. Macmillan and Co., London; Miss Agnes Henry, Cheltenham; Secretary of the Bradford Medico-Ethical Society; Dr. D. J. McKew, Baltimore, U.S.A.; Messrs. Tait and Sons, Rugby; Dr. J. W. Moore, Dublin; Secretary of Society for Relief of Widows and Orphans of Medical Men; Mr. R. W. Parker, London; Mr. B. R. Wheatley, London; Mr. G. Brown, London; Mr. J. Chatto, London; Mr. Jonathan Hutchinson, London; Mr. W. W. Wagstaffe, London; Dr. Smith, Reigate, Surrey; Dr. W. Squire, London.

BOOKS AND PAMPHLETS RECEIVED—

Berkeley Hill, The Essentials of Bandaging—Seventeenth Annual Report for 1875, Sussex County Lunatic Asylum, Hayward's Heath—Tilbury Fox, M.D., Atlas of Skin Diseases, part 8—William A. Hammond, M.D., a Treatise on the Diseases of the Nervous System—Bentley and Trimen, Medicinal Plants, part 8—Cassell's History of India, part 5—Report of the Northampton General Lunatic Asylum, from January 1 to December 31, 1875—Tessenden N. Otis, M.D., on Stricture as the Initial Cause of Gleet—J. Wyatt Crane, M.D., a Report of the Sanitary Condition of Leicester in 1875—Dr. Roberts, a Handbook of the Theory and Practice of Medicine.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—Norwich Mercury—Transactions of the Odontological Society of Great Britain, April—Leeds Mercury—Preston Herald—Gazeta Medica da Bahia—Sunday at Home, May—Leisure Hour, May—Science Gossip, May—The Shield—The Langham Magazine—National Anti-Compulsory Vaccination League, Occasional Circular—The Veterinarian, May—Edinburgh Medical Journal, May—Archives of Dermatology, April—Obstetrical Journal, May—The Veterinary Journal, May—Journal of Psychological Medicine and Mental Pathology, vol. ii., part 1—Archives Générales de Médecine, May—The Investor's Guardian—The Practitioner, May—The Freeman's Journal—The Analyst, April—Huddersfield Chronicle—The Monthly Homœopathic Review, May—The Monthly Microscopical Journal, May.

APPOINTMENTS FOR THE WEEK.

May 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Henry Woodward, "On Crustacea."

8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 2 p.m. General Monthly Meeting.

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On the Comparative Geology and former Physical Geographies of India, Australia, and South Africa."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. H. Morris, "On a Case of Congenital Hydronephrosis, with Remarks on the Secretion and Excretion of Urine in the Fœtus." Dr. Fagge, "On the Lead Line in the Gums." Dr. Gowers, "On Athetosis and Post-Hemiplegic Disorders of Movement."

10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Dr. Squire, "On Measles in the Dog;" and "Notes, with additional data, respecting the Early Development of the Cholera Epidemic of 1853-54 and 1865-68."

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. W. Froude, "On the Fundamental Principles of the Resistance of Ships."

Clinical Society, 8½ p.m. Mr. Maunder, "On Three Cases of Subcutaneous Osteotomy of the Femur" (the patients will be exhibited). Dr. Duffin, "On a Case of Tumour of the Corpora Quadrigemina." The President (for Mr. Leggatt), "On a Case of Intestinal Concretion passed per Anum." Dr. Pearson Irvine, "On a Case of Diphtheritic Paralysis simulating extensive Lung Disease."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 29, 1876.

BIRTHS.

Births of Boys, 1328; Girls, 1218; Total, 2546.
Average of 10 corresponding years 1866-75, 2314·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	810	714	1524
Average of the ten years 1866-75	710·6	665·0	1375·6
Average corrected to increased population ...	...	...	1472
Deaths of people aged 80 and upwards ...	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	5	...	18	...	2	2	1
North	751729	...	8	9	5	26	2	3	1	2
Central ...	334369	...	5	5	1	6	1	1	...	...
East	639111	...	6	5	...	24	...	3	...	3
South	967692	...	17	13	3	20	1	3	4	1
Total	3254260	...	47	37	9	94	4	12	7	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·719 in.
Mean temperature	50·3°
Highest point of thermometer	66·0°
Lowest point of thermometer	39·3°
Mean dew-point temperature	42·0°
General direction of wind	S.S.W.
Whole amount of rain in the week	0·21 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 29, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending April 29.	Deaths Registered during the week ending April 29.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2546	1524	66·0	39·3	50·3	10·17	0·21	0·53
Brighton	100632	42·7	49	42	59·0	40·8	49·1	9·50	0·15	0·38
Portsmouth ...	124867	27·8	81	49	...	...	...	...	...	...
Norwich	83430	11·2	69	46	60·5	38·0	47·7	8·72	1·04	2·64
Plymouth	72230	51·8	52	31	58·0	43·0	48·9	9·39	0·91	2·31
Bristol	199539	44·8	153	78	60·0	35·7	49·1	9·50	0·86	2·18
Wolverhampton ...	72549	21·4	62	38	61·7	39·2	49·2	9·55	1·05	2·67
Birmingham ...	371839	44·3	347	169	59·2	41·2	49·0	9·44	0·40	1·02
Leicester	113581	35·5	83	39	64·0	39·0	49·7	9·83	0·68	1·73
Nottingham ...	93627	46·9	81	44	61·6	36·4	48·7	9·28	0·61	1·55
Liverpool	521544	100·1	406	290	57·9	36·4	47·5	8·61	0·73	1·85
Manchester ...	357917	83·4	344	208	...	...	...	...	...	...
Salford	138425	26·8	152	95	57·7	35·7	47·4	8·55	0·76	1·93
Oldham	88609	19·0	65	59	...	...	...	...	...	...
Bradford	173723	24·1	127	60	55·2	38·0	45·3	7·39	0·77	1·96
Leeds	291580	13·5	258	130	57·0	37·0	46·5	8·06	0·85	2·16
Sheffield	274914	14·0	260	117	58·0	35·5	46·9	8·28	0·75	1·90
Hull	136933	37·7	115	55	...	...	...	...	...	...
Sunderland ...	108343	32·8	95	43	61·0	36·0	43·9	6·61	1·24	3·15
Newcastle-on-Tyne	139929	26·1	129	47	55·0	39·0	43·3	6·28	1·66	4·22
Edinburgh	215146	51·3	130	86	...	...	...	...	...	...
Glasgow	545144	90·4	430	281	54·9	31·4	44·4	6·89	1·32	3·35
Dublin	314666	31·3	188	174	63·2	35·7	49·1	9·50	0·92	2·34
Total of 23 Towns in United Kingdm	8028595	37·7	6222	3705	66·0	31·4	47·6	8·67	0·83	21.1

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·72 in. The highest was 30·02 in. on Wednesday morning, and the lowest 29·32 in. on Friday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF THE

LUMLEIAN LECTURES: THE PATHOLOGY OF THE PNEUMOGASTRIC NERVE.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By S. O. HABERSHON, M.D., F.R.C.P.,
Senior Physician to, and Lecturer on Medicine at, Guy's Hospital.

Lecture II.

(*Concluded from page* 490.)

It would lead us far beyond the limits of these lectures were we to describe the several forms of spasmodic affection of the bronchial tubes produced by local irritation; and, although we speak of this as produced by local irritation, it must be borne in mind that it is the impression upon the afferent branches in the lungs which is local, as distinguished from that which is central or produced by irritation in the abdomen; the action upon the efferent branches is the same in each case. In hay-asthma, the irritant is directly inhaled, whether it be the pollen of grass or other particles; and, in many inflammatory diseases of the chest—bronchitis, broncho-pneumonia, emphysema, etc.—the muscular fibres of the bronchial tubes are excited to spasmodic contraction, and increase the dyspnœa. It is an important part in the treatment of many of these diseases so to soothe the branches of the par vagum as to lessen the irritation of these bronchial muscular fibres. Very minute doses of morphia, of belladonna, of hemlock, may in this way greatly mitigate the disease, when a large dose, especially of the former, does great injury by narcotising the respiratory centre.

The instances of spasmodic disease which are due to reflex irritation are very different both in character and in severity. In the nervous irritability of hysteria or uterine disease an impression is carried to the medulla oblongata by spinal or sympathetic nerves, and thence by efferent fibres to the lungs, so that the respiration becomes greatly excited. Sometimes these patients may be seen breathing one hundred times a minute or more rapidly, equally in quickness with the pulsations of the heart; but the disease, though weakening, is comparatively harmless; it will give place perhaps to irritation of the stomach, or neuralgic pain in the head. Very different is the asthma which is due to cardiac disease, especially where there is mitral stenosis, or with great dilatation of the left ventricle. The blood is delayed in the pulmonary capillaries, and the system is deprived of its normal proportion of aërated blood. This disturbance of the balance between the circulatory and respiratory systems leads to urgent dyspnœa; but we must not dwell upon this subject. Again, in simple gastric disease, we find that the afferent branches induce disturbance of the origin of the pneumogastric, which is expressed in the pulmonary branches, and there is truth in the assertion that a cough is "stomach-cough"; too often, however, the gastric disturbance associated with a dry and hacking cough is itself, as we shall have to mention, the effect of disturbance of pulmonary branches of the pneumogastric by tubercular deposit, and not the cause of the cough. A stomach-cough is a very doubtful symptom in delicate patients, and one that should be watched with extreme care. In gouty subjects, and also in syphilis, in ague, and in remittent fevers, we have modifications of action of the respiratory nerves, and conditions are produced which are very different from ordinary inflammatory disease, and their causes require to be recognised, otherwise they baffle the practitioner in the treatment of them. In this way, iodide of potassium becomes a most important remedy for syphilitic bronchitis, if I may use such an expression, and quinine and arsenic are of great service in the severe asthma that is sometimes observed in aguish districts.

The conditions that are produced by *paralysis* of the pulmonary branches of the par vagum closely resemble those observed after experimental division of the nerve. We may take one or two instances to illustrate this fact, and we would premise by stating that this paralytic condition may be of *central* origin, or it may be due to local or to reflex influence. When the medulla oblongata and the origin of the nerve at the floor of the fourth ventricle are directly affected in severe apoplexy, as in ingravescent apoplexy, when a clot has broken into the lateral ventricle, and the blood has passed onwards into the fourth ventricle, or, again, in apoplectic effusion into the pons Varolii, the respiration becomes very slow; one or two deep inspirations are followed by several slight and more shallow ones, then to be compensated for by a full and deep act. The lungs become congested, there is serous effusion into the air-cells, and a form of broncho-pneumonia is produced if life be prolonged. In poisoning by opium almost a similar condition is observed. This paralytic state of the pulmonary branches may, however, be the result of a *local* cause, as a severe chill affecting the extreme branches of the par vagum. Scarcely a winter passes—we might say no winter passes by—without many persons thus becoming struck down almost at once, especially in the extremes of life, the aged and the young. Sometimes the attack is spoken of as a mere cold or catarrh, but the shock is so great that the patient is unable to rally, bronchitis or pneumonia is almost at once produced, it may be without cough, and the patient quickly becomes prostrate. In a very few hours patients thus pass away; unless, perchance, by powerful stimulants, such as brandy, ammonia, ether, etc., there is a quick invigoration of these important nerves and centres. One other reference to this paralytic condition, and in this instance due to reflex action. It is very common at the close of organic disease of the stomach and of the uterus to find that patients have broncho-pneumonia, and that this appears to exhaust the last spark of life. This condition may be quite independent of septic change and of alteration in the blood, but it is produced by the gradual exhaustion of nerve-power, until, at length, the respiratory act is inefficiently performed, and the least irritation suffices to produce these inflammatory changes in the lung-tissue; sometimes, by watching the gradual progress by which life is fading away, we may for a short time retard dissolution and prolong life.

The most important of the animal functions—that of the *circulation*—is very directly influenced by the state of its nervous supply. A very large plexus of nerves is formed by the branches of the pneumogastric with those of the sympathetic; these pass down from the neck, and at the arch of the aorta the cardiac plexuses are situated, from which numerous branches pass down to the heart itself. Irritation of the cardiac nerves and of the pneumogastric produces distress and pain, and it has been shown that the movements of the heart are retarded, that the diastole is prolonged, and there is diminished pressure in the vessels. When the nerve is paralysed, as by experimental section, the inhibitory power is taken away, and the heart acts at first with increased force. We find in pathological investigations that disease presents us with some symptoms which are due to spasmodic irritation, whilst others may be traced to exhaustion, or paralysis of the nerve.

The spasmodic affections, and the paralytic ones also, may be referred to central, to local, or to peripheral causes.

Spasmodic irritation..	Central ...	Nervous shock.
		Renal disease (?).
	Local	Diseased coronary arteries.
Angina	Peripheral...	Gout, etc.
Paralysis ...	Central	Apoplexy.
	Local	Pericardial effusion.
		Carditis, etc.
	Peripheral	Acute disease of the abdomen.
		Peritonitis, etc.
		Cold in the stomach, or a sudden blow.

It is not necessary to do more than very briefly to refer to these conditions. The cardiac distress which is produced by nervous shock is an instance of the action of the cerebrum and the emotional centres upon the origin of the pneumogastric, and thus upon the lungs and heart. The effect is due in a greater degree to the pneumogastric than to the sympathetic nerve; although, in all cardiac affections, the action of the vaso-motor nerve is exceedingly important. Altered nerve-supply is the cause of the great distress in many organic diseases of the heart; the afferent fibres of the cardiac branches of the pneumogastric are closely united with the sympathetic in the cardiac plexus, and by the afferent fibres from the pneumogastric centre the respiration becomes affected as well as the action of the heart. Whilst saying this, we would not overlook the mechanical interference with the heart in disease of the valves, in dilatation, and in disordered states of the muscular walls of the heart. In renal disease, attacks of severe angina come on where there is chronic disease of the gland, as in the small granular kidney, but many considerations must be borne in mind in reference to this disease; there is degeneration of the minute capillary vessels and altered tension of the arteries, the muscular coat of the ventricles is hypertrophied, and the

blood is changed in character, and the respiratory centres are affected by this impure blood. At the same time, also, that the afferent nerves convey impression from the pneumogastric branch to the kidney and renal plexus of nerves, the branches of the sympathetic nerve connected with the vessels also effect the same nerve-centres. The action of the cardiac ganglia upon the heart is also a more direct source of disturbance in these cases. The same remarks apply to those instances of angina pectoris where the coronary vessels are extensively diseased, and also to those in which gouty disease has led to degenerative change without the production of renal disease and albuminuria. These patients complain of distress at the chest, there is breathlessness on exertion, or on going up stairs, it may be with the sense of choking, and with a dry cough; at night, however, especially after the first sleep, the patient awakes in great distress at the heart, with irregular fluttering movements, palpitation, and inability to get the breath. The paroxysm soon subsides, but it greatly alarms and distresses. Sometimes, when the disease is more severe, the distress at the chest, the pain, or rather the "breast-pang," occurs after very slight exertion. On the most careful physical examination no abnormal sound may be heard; but there is evidently disturbance of the function of the heart. There is inhibitory action of the nerves of the heart, and the pneumogastric is at fault. The suffering complained of is that of agonising fear of death unless the heart recovers its power; but in other cases it is intense darting pain through the left side in the direction of the heart. To stimulate the heart to increased action by ether and by diffusible stimulants (as ammonia) may be of value when they can be resorted to.

It is interesting to find in some of these instances of gouty disease affecting sometimes the heart, and sometimes the kidneys, that the hepatic function is also disturbed and a transient glycosuria is induced. It would seem that other branches of the pneumogastric besides those to the thoracic viscera are involved; and this condition of sugar in the urine, although decided in quantity, may be the more easily overlooked from the comparatively low specific gravity of the urine. It is well known that in gouty disease, with chronic affection of the kidney, the urine is often of a low specific gravity, and sugar may be present whilst the urine only attains a density of 1015 to 1020 or a little more. This state is important to be recognised, for it has an essential bearing both upon the progress and treatment of the disease; and, if overlooked, the malady may make rapid and downward progress.

Some have referred the sudden cessation of the heart's action during the administration of chloroform to this inhibitory action of the pneumogastric, and they state that the heart would act more efficiently if this restraining force were removed by the full narcotic action upon the centre of the nerve.

The pathological states produced by severe apoplectic effusions are of great interest in connexion with the pneumogastric. We have already referred to the slow and irregular breathing which is observed when a clot of blood on the fourth ventricle directly interferes with the origin of the nerve, but the effect is also shown upon the heart; the restraining power is removed, it is partially paralysed, and the heart beats with increased force. It is, however, in many of these cases, that the vessels are diseased and the left ventricle hypertrophied. A *sense* of exhaustion and *apparent* weakness of the heart's action is often complained of by the patients suffering from cerebral oppression. The weakness is *imaginary* rather than real, and we find that such patients will try sometimes to relieve their state by freely partaking of wine and similar stimulants, which augment rather than palliate their condition. A gentleman who had suffered from exposure on the West Coast of Africa, which had caused sunstroke, etc., was found taking a glass of champagne every two hours to relieve his "debility"; but the disease was more effectually removed by spare diet and by smart action from the bowels.

In pericardiac effusion and in inflammatory carditis the heart's action is diminished in power, and there is exhaustion of the nerve-supply. This is especially connected with the condition of the sympathetic nerve and with the cardiac ganglia; the pneumogastric nerve is, however, affected, for we find that the respiration is quickened, and the whole of the parts supplied by the pneumogastric sympathise; the voice is feeble and the digestion is impaired. This is one of the diseases in which it is of great importance, whilst we recognise the local, not to forget the general condition of the patient; to try to lessen the local affection, but to sustain the exhausted functional activity of this, the most important nerve of animal life,

The ganglionic nerve-supply of the stomach and abdomen is in intimate relation with the cardiac plexus. The pneumogastric nerve, although it is especially distributed to the muscular coat of the stomach, is also in the closest connexion with both the peritoneal and mucous layers. In acute diseases of the mucous membrane of the stomach, as in poisoning by arsenic, the heart's action becomes extremely feeble, and the pulse compressible, and the same is true in acute peritonitis; the collapse of the patient is an expression of this intimate relationship. Witness the almost instantaneous effect of a perforating ulcer producing acute peritonitis: the heart's power at once fails, the patient becomes cold and almost pulseless; the eye sunken, and the extremities cold; the cardiac plexus and the pneumogastric of the heart at once sympathise with the solar plexus and the pneumogastric branches of the abdomen—the afferent branches of the latter in their action on the medullary centre cause reflex action on both pulmonary and cardiac nerves.

In many other affections of the gastric mucous membrane this reflex action on the heart is recognised. In ordinary stomach disturbance, as a bilious attack, the nerve-power is weakened by irritation of the mucous membrane; perhaps the sympathetic nerve is exhausted, the vessels dilated, and we thus find a sense of exhaustion produced, with feebleness of the heart's action. Too often, when this state is produced by the irritation of alcoholic stimulant, the patient seeks to relieve the symptom by a fresh dose of the stimulant, and thereby increases and perpetuates the disease. The constant repetition of this process of exhaustion and renewed over-stimulation leads to the most disastrous results, in causing chronic disease of the stomach and of the liver, with disorder of the nervous system. It is of no avail to attempt to relieve the weakened power of the heart and exhausted nervous energy if the patient persist even in moderate potations of alcohol; and, as a rule, it is the better plan at once to cease from all alcoholic stimulant: the stomach and the heart will then recover in a great degree their former energy and strength.

A sudden blow upon the epigastrium has been known at once to stop the heart's action and to produce instant death; and with almost equal power a shock from cold will stop the action of the heart. These, also, are instances of reflex action affecting the heart from peripheral disturbance.

We have thus brought before your notice pathological conditions of a very diverse character affecting the branches of the pneumogastric nerve supplied to the thoracic viscera. To mistake those which arise from a central origin, as from a local cause, is to misunderstand the whole character of the disease; so, also, if we refer those which are produced by peripheral disturbance to mere irritation in the parts only affected by reflex action, we fail to relieve the symptoms, because the treatment is misdirected, and therefore unavailing.

ABSTRACT OF

THE CROONIAN LECTURES

ON

THE PATHOLOGY AND RELATIONS OF ALBUMINURIA.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

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Lecture II.

(*Concluded from page* 492.)

Before proceeding to other questions, it may be well to inquire how often the renal fibrosis is concurrent with a similar change in other organs; how often it is merely one manifestation of a general fibrotic tendency, from whatever cause derived; and how often the result of influences directed solely upon the kidney.

To take as a test one organ which is prone to fibrosis and easy of observation, we may ask how often the granular kidney is associated with cirrhosis of the liver. The records of St. George's Hospital showed that of 250 cases in which the renal condition was clearly described, the liver was cirrhosed in thirty-seven—a proportion of about one case in seven. In Dr. Grainger Stewart's cases of the same renal disorder, cirrhosis of the

liver was found in 15 per cent., almost exactly in the same proportion—a proportion so small as to show that the instances in which renal and hepatic fibrosis are connected by a common origin, to say the least, must be few. Some degree of general fibroid increase is, perhaps, one of the results of age. But, of these, it is certainly one of the least conspicuous. I have been able to examine the tissues of three reputed nonagenarians; with these, fatty and atrophic degenerations were greatly more marked than fibroid hypertrophy. But, nevertheless, the nearly constant, though slight, inequality of surface which the kidneys, and, to a less extent, the liver, display in advanced age is enough to suggest that the process which causes it belongs rather to senility than disease. As to general fibroid exaggeration ensuent upon alcohol, I need not here recapitulate observations which show that this process is very unequally distributed among the organs—the liver suffering much, as early exposed to the influence; the kidney little, as comparatively remote from it.

We cannot but conclude that, putting the associated affection of the arterial system for the present out of the question, the kidneys become the subjects of fibrotic change, in most instances alone, as the result of a morbid instigation proper to themselves, notwithstanding that other organs become involved in consequent and various changes.

It is next of importance to inquire how far we can distinguish the causes by which this organic change is engendered.

It takes its rise, in a vast majority of instances, in no cause which can be isolated, but in innate predisposition, or in some of the circumstances which belong to the common ways and even tenor of life. Hereditary influence, not so often to be traced as with some other disorders, is occasionally strongly declared with this. I might cite the medical history of an ancient family, in which three generations, comprising seventeen individuals, furnished eleven subjects of chronic albuminuria, undoubtedly dependent on granular degeneration, though not ascertained to be so, as far as I am aware, by any post-mortem examination. The disease affected both males and females. Four, who have already died with it, did so after having had the disorder for many years (in one instance for twenty-three), at ages varying from twenty-six to forty-nine. It has been remarked that a peculiar pallor by which the members of this family are characterised is noticeable in their portraits long antecedent to the period of which this record treats, or to which renal diagnosis extends.

Probably more prolific in the issue of this complaint is the influence of climate, which, to be most injurious in this respect, must be, as all our records of the geography of disease concur to show, that of a Lacedæmonian temper, equally avoiding the extremes of heat and cold, neither arctic nor torrid, though within temperate limits presenting much thermometric variation.

It is scarcely necessary to support this assertion by reference to the prevalence of albuminuria in England, Germany, the Northern States of America, and Australia, as contrasted with its infrequency in Southern Europe, the coasts and islands of the Mediterranean, the Cape, and India. The liability of an organ to disease is in some sort of proportion to its activity of function, as a machine becomes more apt to strain or break the more it is urged.

In hot climates, the skin and the liver take the stress of excretion from the kidneys; while it is probable that in arctic and subarctic regions these excretory organs are spared by the more perfect oxidation which answers to the demand for animal heat, and ultimately adapts to respiratory exhalation matters which in ordinary circumstances would escape in earlier stages of conversion with the urine.

From causes of disease inherent to race, or inseparable as their physical conditions from diverse parts of the earth's surface, we come to others which fall with a more partial incidence upon individuals. These may be generally classed as causes of congestion or modes in which a low degree of inflammatory irritation is brought to bear upon the organ.

To speak, first, of the easiest to trace, though, perhaps, not the most frequent or the most important, mechanical venous congestion has the priority. The induration of the organs, which results from heart disease when attended with venous obstruction, was long ago described in its palpable results by Sir W. Jenner. Looking minutely into the condition of the kidney as found in such circumstances, an instructive series of changes presents itself. To the naked eye, hardness, redness, and increase of cortical bulk, tardily followed by small, slightly indented, and irregular granulation, and corresponding diminution of volume; with the microscope, distension of the bloodvessels, a large accumulation of epithelium little different, save in its abundance and irregular detachment, from that of health;—and these for long the only discoverable changes. It is apparently chiefly to the excess of epithelium that the characteristic hardness of the cardiac kidney is due. After a time, though often long delayed, a more permanent injury ensues in a thickening of the fibrous tissue, attended with a sparse and scanty development of connective nuclei, which show like the thin produce of an uncultivated soil as compared with the prolific issue which causes of a less mechanical sort engender. The patience with which mechanical or venous congestion is tolerated is marked with the kidney as with other organs. How small is the result of mere turgidity as compared with that of a special stimulant; a modicum of scarlatinal poison, or of cantharides, or a chance influx of cutaneous excreta! An organ is eager to respond to or to resent an appeal to its special function, and will draw to itself blood according to its purpose; but blood merely retained in a passive gland is but fuel without fire—the means of disease without the motive.

The fact that, from long-continued or oft-repeated congestion of cardiac origin, the renal fibrous tissue is sometimes increased, is evident both in external granulation and in the intimate changes as displayed in section; but the process is slowly developed and is more partial, as well as more scanty, than when it has sprung from other causes: large tracts often remaining entirely unaffected, save by epithelial accumulation. The condition of kidney described is characterised during life by urine, which is at intervals scanty, lithatic, and albuminous, and between times natural. It is usually of less importance clinically than the cardiac lesion. When dropsy gives evidence of both valvular and renal mischief, it usually happens that the valvular is primary, the renal consequent.

Another condition, acting also, apparently, by way of venous obstruction, is not in itself morbid, however attended with morbid results. The pressure of the gravid uterus upon the emulgent veins and vena cava appears in certain individuals to cause a condition of renal congestion, and, if often repeated, of granulation analogous to that which results from valvular disease. It has been supposed by some writers that the necessity of getting rid of some excrementitious product of gestation is the chief cause of the renal embarrassment; but such a surmise would seem gratuitous in view of the congestive nature of the renal lesion and the obvious cause of venous obstruction which exists. The date at which the symptoms usually begin, after the uterus has left the pelvic and entered the abdominal cavity, their increase with the increasing bulk of the organ, the greater frequency of the affection when the structures have not been made distensible by antecedent pregnancies,—these, taken together with the evidence of obstruction which is often presented, independently of albuminuria, in venous and œdematous swelling of the lower limbs, all concur to assign the result, mainly at least, to mechanical causes. But the affection thus resulting has points of difference, pathological and clinical, from that of cardiac origin. Pathologically, in the greater proneness of the organ to fatty change, and in the more general development of interstitial nuclei which belong to the puerperal form. Clinically, the puerperal form is productive of symptoms which, though more transient, are infinitely more severe. The frequency of convulsions with labour, which appear to be almost invariably connected with this organic change, needs no assertion here. And it is to be noted that renal disease, when of this origin, becomes associated with secondary retinal changes with a frequency which is unknown with renal disease of any other derivation. Possibly this may be in some measure due to the increased vascular tension which belongs naturally to the condition of pregnancy, and must lend increased force to any disorder which morbidly exalts this condition.

Passing from the mechanical causes of the disease to others less obvious in their mode of action, the gouty condition is too well known as the associate and the antecedent of the granular kidney to need more than mere enumeration among the causes of the disease; and the influence of lead, scarcely distinguishable from that of the gout which the absorption of this metal so constantly causes, has been so often dwelt upon of late, more especially by our distinguished Fellow, Dr. Garrod, that any elaboration of this striking fact in renal etiology would be here out of place. So often does this form of renal disease come upon saturnine impregnation, that in this metropolis, if we may take the testimony of St. George's Hospital, more than

50 per cent. of those artisans who are exposed to it display after death the morbid state in question. To bear witness to so common a sequence is easier than to explain it. Lead works its way out with the urine; that it is an irritant is evinced by the occasional outbreak of acute albuminuria under its action; it may be that a chronic inflammatory process is maintained by its continued percolation.

The influence of alcohol—not to speak too positively upon a question as to which there may still be differences of opinion—must be credited with some similarity of result; though the effect of this volatile poison upon the renal exit is, in whatever way we test it, immeasurably smaller than that of the stable and persistent metal.

And other causes, acting, as we must suppose these to do, by way of irritation or a low degree of the inflammatory process, discover themselves to our search, not in numerous results, but in such wise as to place their existence beyond doubt.

I have already shown how the fibrotic and granulating process may succeed upon the diffuse inflammation which scarlatina engenders; and cases sometimes occur—I have seen two or three—in which, though this exanthem has been immediately followed by no dropsy nor by any ostensible sign of renal inflammation, yet health has broken down with the disease never to be recovered, the failure marked by pallor, want of strength, and retarded growth, and ultimately by albuminuria, hypertrophy of the heart, possibly retinal hæmorrhage, and symptoms which tell unmistakably of renal and granular change. It would seem as if, in these rare instances, the febrile poison had fixed first upon the interstitial tissue, or, at least, had reached it after an affection of the proper secreting structures too slight to be noticed.

With similar infrequency, I have also seen cases in which the disease has slowly succeeded upon tropical intermittent fever; and it must be conjectured—though my own knowledge, at least, is too small upon this branch of the question to speak otherwise than doubtfully—that the intense congestion of the cold fit may set up hyperæmia of the kidney as of the spleen, which in the former organ may with repetition eventuate in hyperplasia of the fibrous tissue, and thus, after lapse of years, give rise to the marked condition of renal fibrosis of which the instances to which I refer have given evidence.

And, to touch upon another origin of the same glandular change, there is reason to suspect that it may be brought about by the prolonged influence of accumulated urine. In young persons, with whom in ordinary circumstances the disorder is exceedingly rare, I have more than once noticed it in connexion with a history of stone or a dilatation of the renal pelvis or of the ureter, which must have resulted from some former obstruction.

Retained and decomposing urine has, as we know, the power of setting up about the renal bloodvessels points of intense and suppurative inflammation; and it is probable that the continued backward pressure of urine of any kind may have an irritating effect, chiefly manifested, as chronic irritations are apt to be, upon the interstitial tissue. Some degree of fibrous thickening is, indeed, often to be noted in a kidney long exposed to urinary pressure.

I have dwelt at some length upon the causes of renal fibrosis, both in consequence of their occasional obscurity, and also in view of the questions which surround the disease in reference to its glandular and local or vascular and general origin. So far, it is clear that the granular or fibrotic kidney, though often without ostensible cause, is, in a certain proportion of cases, to be definitely traced to circumstances of mechanical congestion, or to others in which a more definite form of glandular inflammation must be held to take part. It has been shown that the fibrotic process may be left behind as a legacy or residuum by diffuse inflammation of the gland, and that its origin in other instances may be directly due to influences capable of causing glandular irritation—scarlatina, the poisons of lead and alcohol, and probably the irritation of retained urine. And it must be added that, however definitely the disorder can be traced to one or other of these accidents, the cardiac hypertrophy and arterial thickening are present in as marked a shape as when the origin of the disorder is equivocal or apparently spontaneous.

With the facts which I have attempted to catalogue in reference to the association both of comparatively acute renal inflammation and also of the state of granulation or fibrosis, I may now approach, though with caution and misgiving, a vexed and difficult question. I have sketched the mere morbid anatomy of the arteries in connexion with both disorders; I have yet to deal with the significance of the changes which have been described—whether directly consequent upon the glandular embarrassment, and, if so, whether there be any clue to guide us to their mode of production; or whether connected with the renal change only as the parallel results of a common cause. These questions may fitly be discussed before proceeding to the consideration of the lardaceous disorder, since the special cardio-vascular change of chronic albuminuria, constantly as it accompanies the forms of the disease hitherto considered, appears to have only an occasional and accidental connexion with that which is to follow.

It is necessary to inquire, first: Whether the state of the vessels which may be briefly designated as albuminuric is directly produced by renal disease, and traceable to causes which act by way of inflammation or otherwise separately upon the glands in question; or whether the arterial and the renal conditions are common results of a general fibrosis which has its origin, not in causes local to the kidneys and obvious in their nature, but of a sort not to be more narrowly defined than as producing changes allied with those of age.

I will recapitulate the observations which bear upon the reply.

The albuminuric change of vessel is generally present, not only with the granular or fibrotic kidney of advanced life, but as constantly and in as marked a shape where the same renal condition occurs as a disease of childhood at ages ranging from six to fourteen, where deteriorations akin to those of age are, to say the least, unlikely.

And among such early cases in those where there is reason to look upon the disorder as a late result of scarlatina, or possibly of urinary obstruction, the arterial condition is none the less to be found.

Further, the albuminuric thickening of heart and vessels less advanced, but in its degree unmistakable, occurs in connexion with the diffuse nephritis consequent upon scarlatina or cold, which begins abruptly with acute dropsy and terminates with the large smooth kidney. And the evidence afforded by these cases is scarcely rendered less conclusive by the circumstance that more or less interstitial nucleation or incipient fibrosis is nearly invariable with those of which the fatal ending allows the vessels to be made the subjects of observation. The circumstances in which the nucleation has originated, the youth and previous health of the subjects, and the inflammatory concomitants of the disorder, are such to show that it is the result of local disturbance, not general deterioration.

To take note in passing of a prominent clinical landmark which opens to our view, it may be accepted as a general truth that hypertrophy of the heart in connexion with albuminuria is a sign that the kidneys, however affected originally, have become the subjects of fibrotic and irrevocable disease. The association is, no doubt, partly, one of time. When the disorder has lasted long enough to thicken the ventricle, it will almost invariably have extended to the interstices of the gland.

To speculate on the essential nature of the cardio-vascular change, it has been shown that, though differing in degree, it is similar in kind, whether the renal affection be of inflammatory origin or have begun, however obscurely, as granular degeneration. The change is compounded of muscular thickening, arterial and ventricular, which deserves in both situations to be called hypertrophy, notwithstanding its admixture in the arteries with degenerative changes, and, as coincident with or successive upon it, an exaggeration of the outer or fibroid sheath, which is as truly as the muscular coat hypertrophied. These structural alterations are concurrent during life with increased tension or tightness of the arterial system. Where there is no increase of tension, to anticipate a fact with regard to the lardaceous disorder, there is no arterial or cardiac thickening. When both ensue, and the time of their accession can be observed, as happens when they succeed upon an inflammatory attack, the tension appears early, the hypertrophy late, in the disease. Thus it is impossible to attribute the tension to change of structure; but, on the other hand, the two may be the consecutive results of a common cause, or the change of structure may be directly due to the increased tension. Whether we seek the cause of the cardiac hypertrophy or of the arterial tension, we can find it only in obstruction. After what has been recently brought before the College, I need not recur to the evidences that the increased tension of Bright's disease depends upon retardation of the arterial outflow. Bright, with a sagacity which served him in the place of

microscope and sphygmograph, was led by the cardiac hypertrophy to infer the existence of this condition, and to attribute it to a difficulty with which the impure blood penetrated the capillary vessels. And at present the only question which calls for consideration is, whether we are to place the difficulty with Bright in the capillaries, or with Johnson in the arterioles. In the view of the latter pathologist—one to whose observations, however we interpret them, a large importance must be attached,—the circulating system is the seat of divided councils. The arteries resent the contact of the impure blood, seek to shut it off from the tissues by an action which has been likened to that of a stopcock, and by their continued efforts become hypertrophied. The heart at the other end becomes hypertrophied by its endeavours to overcome the resistance thus occasioned.

If we regard, however, the ventricle and the arterics, as the facts of comparative anatomy enable us to do, as but the subdivisions of one contractile vessel for the propulsion of the blood, which act not antagonistically, but in unison, an arterial effort succeeding upon and carrying on that of the heart, it becomes difficult to conceive a perversion of function such as this theory supposes. We may fall back upon the elder hypothesis, locate the hindrance in the capillaries, and assign it to a loss of fluency in the unpurified blood, a want of consent between it and the tissues, or in some other mode to a lessened facility of capillary transmission.

In this hindrance, whether in arteriole or capillary, in the smaller vessels or in the smallest—and perhaps it matters practically little in which we place it—it is easy to see the explanation of the complicated change. We may, as of old, attribute the ventricular hypertrophy to the difficulty with which the heart empties itself; and with as obvious reason extend the same explanation to the hypertrophy of the arteries. The fibroid thickening, no less real than the muscular, may feasibly be assigned to the increased pressure of the blood against the arterial wall, and the consequently increased soakage into it. The arterial coats are normally nourished by this process, and it is consistent with all we know of the effects of congestion elsewhere to attribute fibroid hyperplasia to its exaggeration. It is possible that the change in the muscular coat may be somewhat helped by this process, more especially in imparting a want of distinctness or appearance of fusion to its elements. As touching the degeneration early found in the nuclei, later about the inner aspect of the muscular coat, and possibly at last universally, this may, perhaps be fairly attributed to the irritative effect of the unpurified blood. An irritant in the blood, whether excremental or alcoholic, will cause atheroma, and may be credited with the allied result in fatty change of nuclei and fibre.

But thus to trace the cardio-vascular change directly to renal incompetence does not exclude the possibility that it may have other modes of origin. Cases present themselves, and by no means unfrequently, in which the lesion of vessel is marked by cardiac hypertrophy, retinal hæmorrhage, and hardness of pulse, and with which, nevertheless, the urine is either free from albumen or contains but a scarcely appreciable or intermittent amount. I think it is not to be doubted that in such the disease is less often absent than hidden, not declared by external symptoms, though effective in its internal results. Albuminuria is no such constant sign of the granular kidney as of tubal disease. Even when the gland is hopelessly crippled by interstitial growth, and death by uræmia is impending, the urine, whatever be its faults of deficiency, may, if not critically examined, pass as free from albumen. The vascular mischief, therefore, is often associated with latent renal disease. Whether it ever occurs independently of renal disease is as yet *sub judice*.

Professor Henke, of Tübingen, has accepted the call to be Professor of Anatomy in the University of Berlin; and Professor Toldt, of Vienna, has been made Professor of Descriptive Anatomy at Prague.

Cremation.—A Vienna notary, lately deceased, requested by the terms of his will that his body should be burnt. The Vienna authorities have refused to allow his wish to be carried out, but without assigning a distinct reason for their refusal. The *Wiener Medizinische Wochenschrift* suggests that in the emergency, and as there is no proper cremation-even in Vienna, the body might be taken to Dresden, and there incinerated, as was lately done in similar circumstances by an English family.

ORIGINAL COMMUNICATIONS.

NOTES ON PROGRESS IN THE

DIAGNOSIS AND TREATMENT OF OVARIAN TUMOURS.

WHAT REMAINS STILL TO BE DONE?(a)

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Hospital for Women and Children.

(*Concluded from page* 493.)

I now pass to the consideration of the aid which we may derive from examination of the fluids obtained by tapping, or of the solids obtained in the same way, or by the use of some of the forms of exploring needle or harpoon. I believe Dr. Drysdale, of the United States, was the first to draw attention to what is now often spoken of as Drysdale's ovarian granule cell, as a certain means of distinguishing between ovarian and other similar fluids, and I would refer those who may be interested in the subject to his chapter in Atlee's work on Ovarian Tumours for a full explanation of his views. I do not think I am prepared altogether to pin my faith to this ovarian cell, or any single cell, as a certain test; but I think its presence along with other elements which we usually find in ovarian fluids is a very valuable piece of confirmatory evidence in any doubtful case. I would say of this, as of all the examinations of fluids, both by tests and by the microscope, that I should be sorry to have to depend on them alone for my diagnosis, but I think they often give most valuable aid, and, in some cases, render a diagnosis otherwise impossible quite clear; and I would even go so far as to say that in some cases I should prefer trusting to my microscope to trusting to what could be learnt by a mere physical examination of the patient. I have brought with me to-night a few camera drawings of elements found in various fluids, which I will hand round so that members may refer to them while I make some remarks on this subject, and mention a few cases in support of my views. The subject would occupy a much longer paper, all to itself, than this, and therefore I can only glance at it now; but I may say that I believe much of our future progress in abdominal surgery, so far as operation for tumours is concerned, depends upon a correct appreciation of the value of an accurate examination of the fluids obtained by tapping in distinguishing different cystic or peritoneal secretions and their more solid surroundings the one from the other.

To state as briefly as possible my experience on this subject I would say—if a fluid is more or less viscid, forms a considerable coagulum on heating, which coagulum is either entirely dissolved or turned into a transparent jelly by adding an equal volume of strong acetic acid, and continuing the boiling, this fluid is probably from an ovarian cyst.

This is a test suggested to Mr. Wells for distinguishing between ovarian and ascitic fluid by the fact discovered by Scherer, that par-albumen is soluble in strong boiling acetic acid, whereas albumen is not.

If a clear bright or pale yellow fluid, which is not viscid, forms a dense white or whitish-yellow coagulum on heating, which is often somewhat yellowed, but not dissolved, by boiling in excess of strong acetic acid, it is probably ascitic.

If a fluid is clear like water, or slightly opalescent, of low specific gravity, forms little or no coagulum on heating, but often becomes markedly turbid if a few drops of acetic acid are first added, and then quite clear again with more acetic acid and more boiling, it is probably from a broad ligament cyst. If it is a viscid yellowish fluid, forming with heat a coagulum which is only partially dissolved or gelatinised by boiling with excess of strong acetic acid, it is probably a mixture of ovarian and ascitic fluid. Ascitic fluid, in cases where a malignant abdominal tumour is present, and causing its presence, is apt very closely to simulate a mixed fluid, but I shall be able to point to other differences between them.

These are rough tests which I frequently employ by the bedside of the patient, and I find that when in any doubt I can, with the other symptoms of the case, frequently decide correctly as to its nature; but I should never venture an opinion on them alone, and am often not aided at all by them, and am glad to fall back upon my microscope. What aid, then, can it

(a) Read before the Harveian Society of London, April 20, 1876.

afford? First, it shows us certain elements in the fluids, which may help or confirm diagnosis in a doubtful case. Second, it shows us the structure of the solid parts of tumours, and aids us materially in deciding as to their simple or malignant nature. I have already mentioned the ovarian granule of Drysdale. It is a little round delicate cell, full of brightly refractive granules, the cell varying somewhat in size, but commonly about that of a white blood-corpuscle; it may be distinguished from the latter and lymph corpuscles by its resisting the action both of acetic acid and ether, neither making any distinctly perceptible change in its appearance, except that the former renders the granules, which are irregularly scattered throughout its interior, rather more distinct. Besides this granule cell, ovarian fluids commonly contain a few blood cells in various states of change, and some larger brown or yellowish granular aggregations, which appear to have no investing membrane. Other common objects found are the cholesterine crystals, single or in masses; in some fluids they are very abundant. More rarely one finds certain single cells and pieces of small columnar epithelium; and in still fewer cases, to which I shall again refer, certain peculiar groups of round and oval cells aggregated in clusters and coutaining many nuclei or small cells in their interior and vacuoles. Other rarer cell-forms are seen, but those I have mentioned are sufficient to recognise in the great majority of cases.

In the fluids from broad ligament cysts one rarely finds any element on microscopic examination, and if any, usually only here and there a single roundish dimly granular epithelial cell.

It is very different, however, when we come to examine peritoneal fluids, for here we find the most remarkable and characteristic cells and cell-groups. I have not had many opportunities of examining ordinary ascitic fluids in cases of hepatic cardiac or renal disease, but in the few I have examined I have never found anything but a few red and white blood-cells, and a few larger granular nucleated cells, having the appearances one would expect to find in chance free cells from the endothelium lining the peritoneal cavity. It is when we come to examine peritoneal fluids which have been poured out round an abdominal tumour, however, that we find various groups of cells, which it is impossible for me to describe in detail here. Suffice it to say that I believe they are of the utmost importance for us to study, and often furnish most valuable aid in diagnosis. I send round drawings of some which will, I feel sure, do more than any lengthy description towards convincing the members of the Society that they are sufficiently characteristic. My friend Dr. Foulis, of Edinburgh, claims to have been the first to describe some of these,(b) which he considers afford certain evidence of the malignant nature of the tumour if it be ovarian. I will not dispute with him the satisfaction of being the first to draw attention to this important subject, but I cannot quite agree with him as to their always indicating malignancy when present with an ovarian tumour, as I have found them in the peritoneum when irritated by rupture of an ordinary ovarian cyst, and Dr. Keith tells me he has operated on patients with the nodular growths (from which, I believe, these cell-groups are shed) covering the peritoneal surfaces, and yet the patients have remained for years after in the enjoyment of good health. I have also found them with malignant disease of the uterus, liver, and omentum. I believe these groups to be of two kinds: the one consisting of masses of germinating endothelium; the other of masses of germinating or proliferating cells, derived, not from the endothelium, but from the ground substance of the peritoneum. Various forms will be seen depicted faithfully in the drawings, some looking like mere clusters of lymph corpuscles (like bunches of grapes), others like more or less flattened endothelial plates arranged in layers, and others presenting every variety of size and shape, and every stage of growth. It is these latter to which I attach the most importance as indicating malignant disease, and under this term I include both the rapidly growing sarcomas and carcinomas and certain peculiar ovarian papillomata. I have great hopes that careful study will enable us to diagnosticate by these *groups* not only the presence of malignant as differing from simple tumours, but also the special forms of tumour. I would say here that I believe the presence of any large collection of ascitic fluid round an abdominal tumour is always strongly suggestive of malignancy, but whether its presence is merely due to irritation of the peritoneum by rapid growth, or to some more direct infection, I think is at present uncertain. The *occasional* presence of a considerable quantity of ascitic fluid, along with a simple uterine fibroid or simple ovarian tumour, points to the former hypothesis as correct; and the presence of the groups of cells I have been speaking of, along with ascites in malignant disease, and their absence in simple ascitic fluids, also favours this view. The colouring of the ascitic fluid with blood, along with these cell-groups, I believe is a certain indication of malignancy, though, even where this symptom is also present, we see very different degrees of malignancy, as judged by the time the patients may live in tolerable comfort if occasionally relieved by tapping.

In the *Medical Times and Gazette*, April 10, 1875, I drew attention to the presence of these cell-groups, together with certain other microscopic elements, as indicating papillomatous growth inside ovarian cysts, and stated my belief that any cyst known to contain this papilloma should be at once removed, as the escape of these cell-groups into the peritoneum may cause general infection. Since publishing that paper I have seen more than one case confirmatory of that view, and I have just had an opportunity of examining post-mortem the liver of a lady whose cyst I feel sure contained papilloma—my opinion being formed from more than one careful examination of the fluid obtained by tapping. The case was not considered a suitable one for ovariotomy, and was treated by vaginal tapping and drainage, and the patient died of malignant disease extensively infiltrating and much enlarging the liver. I cannot at present accurately describe the growth, but I have examined it sufficiently to satisfy myself of its relation to that found in the remains of the cyst. A similar case is reported in the last edition of "Wilks' Pathology" by Moxon.

Papillomata occupy a most interesting position on the border-land between simple and malignant tumours, and when their history comes to be completely written I expect much valuable information as to the pathology of malignant tumours will be brought to light.

It will be seen from what I have said, as well as from the drawings I have sent round, that these cell-groups may be found in ovarian cysts which, if removed early, are simple tumours, and that I also regard them in certain peritoneal fluids as evidence of malignancy. This at first sight appears a contradiction; but it is not so, for, once free in the peritoneum, I have ample evidence to prove that they become clinically malignant, because universal papilloma of the peritoneal surfaces results. And though the growth is a slow one, and, as I have said, on the border-land of malignancy, it does eventually kill, invading, by infiltration, intestines, bladder, etc., and even appearing in the liver itself. The presence of these cell-groups in both simple ovarian cysts and peritoneal fluids with malignant tumours might appear to render them valueless for diagnostic purposes; but this is not the case, for when we subject the fluids containing them to the rough tests I have mentioned, and to further microscopic examination, we have no difficulty in distinguishing between them. Indeed, as I have already said, I believe further time and opportunity for the study of this subject will reveal distinctive characters in the cell-groups which will materially aid us in distinguishing the kind of tumour causing their presence in the peritoneal fluid.

I might say much more on this subject, and bring forward interesting cases in support of my views, did time permit. The contents of dermoid cysts are generally quite characteristic, both to the naked eye and microscope; but it is seldom of importance to distinguish between a dermoid and ordinary ovarian cyst before operation. The following diagnosis, founded in a doubtful case on the examination of the fluid procured by tapping, and confirmed by exploratory incision, may serve as an illustration of this subject:—

1. The fluid examined comes—in part, at any rate—from an ovarian cyst.
2. The cyst, or cysts, contain papilloma.
3. Some inflammatory action has been going on in the lining membrane of the cyst.
4. From the great variety and large size of many of the cells and cell-groups, the growth is probably free in the peritoneum.
5. Some admixture of ascitic fluid is also rendered probable by the appearance and chemical reaction of the fluid.

The case was one in which it was very difficult to decide

(b) It is only just that I should say my statement of Dr. Foulis's views is taken from the August number of the *Edinburgh Medical Journal*, 1875, pp. 169-170. It will be seen that I am also able to answer Dr. Foulis's query, as to whether the cell-groups are ever found in ascitic fluid due to the presence of malignant tumour of other organs besides the ovary.

whether there was a solid tumour, or tumours with ascitic fluid, or whether it was a case of ruptured ovarian cyst; and Mr. Wells thought an exploratory incision advisable. The incision brought to view a large ruptured cyst, with papilloma growing out of it, and similar papillomatous growths from the peritoneal surfaces, with extensive deposits of lymph on the cyst-wall, and the wound was at once closed. Mr. Wells kindly showed the above report on the fluid to those gentlemen who were present. The patient recovered, and is still alive, more than a year after, thus affording evidence of the slow malignancy of the growth.

I had hoped to say more on the subject of the examination, in doubtful cases, of small portions of the solid parts of tumours obtained either sticking to the canula after tapping, or by the exploring needle or harpoon; but the drawings and notes of this case, which I hand round, must serve as the only illustration. The diagnosis of malignancy has not been substantiated by operation or death, but is confirmed by the clinical aspects of the case—rapid growth of large solid tumour; appearance of nodules between rectum and uterus; and general state of patient. I may just mention that in two cases lately—one of Mr. Wells', and one of my own—in which there was just sufficient doubt to justify puncture with a fine aspirator, enough material was obtained for microscopic examination to support the ovarian diagnosis; and both cases have since been further confirmed by successful ovariotomy.

IS LEPROSY CONTAGIOUS?

By "MUCOR."

In the *Medical Times and Gazette* for July 17, Dr. Gavin Milroy concludes his paper on leprosy by observing that no more need be said touching contagion "until further and more exact information is obtained." Whilst concurring with Dr. Milroy in this view, may I be permitted to suggest that the matter he discusses cannot be determined without a knowledge of the infectious principle of the disease? This is an essential element in the inquiry Dr. Milroy has entered upon, and indeed I think it will be obvious on reflection that the issue cannot be scientifically tried even until the great question of causation has been decided. As a contribution to this question, perhaps the following etiological speculation may be found curious, if not sound. The substance of it was given in a work "On the Causation and Prevention of Dysentery, Typhoid, etc.," published in 1873, but as it is not likely to attract attention where it is, I venture to bring it into the strong light.

Writers upon leprosy have exhausted all the probable and possible factors of the infective agent, except fæcal matter. This material has not been eliminated. I conceive that the relation of excrement to leprosy is as that of excrement to typhoid. Certainly the precise connexion between fæcal matter and typhoid has not been made out, or, rather, it has not yet been shown experimentally; but now that Dr. Klein has, as Mr. Simon has announced, demonstrated that the intestinal lesion is due to a "mycosis," it is not difficult, I apprehend, to infer the source of the micrococci in the tissue—namely, a mildew growing on fæcal matter. For since sewer-gas may contain the vegetation which will induce the specific typhoid mycosis, whence can this vegetation come but from a mildew on the free surface of the substrate in the sewer? There is no other efficient explanation of an aërial vegetable poison, and the only rational interpretation of water-pollution appears to me to be, that the submergence of the fæcal mildew forces it into another phase of existence, and changes its mode of fructification, but does not alter its specific character or its specific effects on the organism. Although this view of typhoid causation may be held to be premature, and to offer insecure grounds for analogy, yet I will assume it to be sound here, *ad interim*, in order to illustrate my hypothesis of the causation of leprosy. Not that I have the least doubt of its soundness, be it understood, for I inferred both the mycosis and its derivation from a fæcal mildew long before Dr. Klein discovered the specific micrococci. If it be granted that the micrococci he has found are the morbific agents or carriers of infection, it follows, of necessity, that they must sometimes come of some form of vegetation occasionally contained in the air of sewers. Inferentially this air-borne vegetation is, to a certainty, given off from the parasitical plants grown upon the substrates contained in the sewers.

I submit that the destructive changes of the tissues in leprosy are caused by a mycosis, and that the specific micrococci concerned in the mycosis are the direct descendants of a mildew occurring on fæcal, and perhaps other organic, matter placed under certain conditions of heat, moisture, and light. It is assumed that the parts involved in leprosy are infiltrated by colonies of micrococci.

Dr. Carter has suggested the same view as a probability,—and it is a question of probabilities. The only other explanation of the leprous necrosis of any weight is that it depends on abnormal cell-growth, or cell-degradation, from defective or vitiated nutrition. Many, if not sufficient, reasons in favour of the explication by parasitical vegetation could be adduced, but I will content myself with observing that the supposition of a mycosis is fairly warranted by analogy. The alteration of the textures in leprosy is so nearly allied to the disintegrative changes of tissues which have been proved to have been effected in so many specific diseases by specific micrococci, that it will not perhaps be considered a strained assumption that leprosy has its origin in some low form of vegetation.

At all events, let this assumption be granted provisionally as a postulate. The micrococci in the body being inferentially the progeny of a form of vegetation originally existing outside the body, the only presumable form of the parent vegetation is a mildew. The question then arises as to the last habitat of the mildew before its spores or mycelium are imbibed. What is the substrate on which the mildew was subsisting at the time when the migration into the living substrate took place? The only efficient substrate common to tropical and arctic countries with which man comes into sufficiently close relations is fæcal matter. By no other substrate can it be understood why leprosy should be almost entirely limited at this epoch to races living under opposite conditions of atmospheric heat and cold. The fact that the disease chiefly affects the high and the low latitudes, and is now rarely met with in temperate zones, has been an etiological difficulty. The phenomenon, indeed, would appear to preclude the supposition that fæcal matter is essential to causation, inasmuch as the intermediate races would seem to be as largely exposed to its influence as are those subject to leprosy. How is it possible that the excreta of races living at thermometrical extremes should be brought under such identical or similar conditions as to produce identical or similar poisons, whilst the excreta of the races between are not brought under those conditions?

The key to the solution of the problem is to be found in the outbreak of leprosy in New Brunswick. There the French were exclusively attacked, and the gist of the official investigation into causation, etc., was that the disease appeared to have been induced by a fish diet and the use of stoves. But the English colonists also ate fish and used stoves. There was probably, therefore, something more cardinal in a differentiation which resulted in a line of demarcation so sharply cut between the French and English. Heredity has, of course, been suggested. French Canadians had long before been afflicted, and leprous families had migrated from Canada to New Brunswick. The evidence on the point is weak, and, indeed, altogether insufficient to establish blood-relationship in all cases; but, supposing heredity could be clearly shown in every case of leprosy in New Brunswick, the question as to origin would merely be shifted to Canada. If heredity be again assumed, it must also be assumed, as a consequence, that a taint which has lain dormant in French families for several generations declared itself in those branches of the families only which emigrated to Canada; or that every leper—*in esse et in posse*—left France within a given period, went to Canada, and never returned to France; for there are no French lepers out of North America. But, even granting either of these absurd propositions, there would still remain a phenomenon in connexion with the appearance of leprosy in New Brunswick which could not be accounted for by any known law of heredity—the simultaneousness of the attack. By what principle in heredity were all these apparently healthy people suddenly transformed into active lepers? In authentic instances of heredity it would appear that the transmitted virus matures in the offspring, as a general rule, before or about the time of puberty. How is this to be squared with the well-known facts of the outbreak in question? In short, heredity cannot be rationally assumed as its sole or sufficient cause.

As we may safely strike contagion out of this calculation, and as climatic, atmospherical, and other general conditions were common to the two races, what remains to explain how the

French colonists were ravaged with leprosy while their English neighbours escaped entirely? I suggest that the explanation is to be found in their excreta-disposal systems. By inference I conclude that the English colonists placed their privies at some distance from their dwellings, and that the French had their *cabinets*, or receptacles, in close proximity to their dwellings, very near the flues of the stoves, so that while the excreta in the one case were in a state of congelation, in the other they were subjected to such a degree of heat that the fluid contents of the receptacles evaporated, and the fæcal matter was thus brought under conditions which admitted of its sustaining the tropical mildew which induces leprosy.

If this hypothetical view be extended to still colder regions where the people are snowed up for weeks together, it will be seen that the excreta of such a community must periodically come under similar conditions, in regard of heat and moisture, as the excreta of the inhabitants of the tropics; for the breathing-spaces under the snow are hot and muggy, even though the snow-crust is pierced by hollow poles from below. In some, perhaps many, instances it will happen that a large extent of surface of fæcal matter will be left exposed to this atmosphere, and it will depend upon the term of the exposure and upon other conditions in what proportion of cases the leprosy plant will be forced in these aretic hothouses.

I infer that the chemical rays of the sun are not only not necessary for, but interfere with, the development of the assumed mildew, or, in other words, that the mildew will grow only in the dark or in deep shade. By coupling this inference with another—viz., that the area of infection surrounding the mildew is very circumscribed—one may understand how so few lepers proportionately are met with amongst the millions of the surface-polluting races. By this light also the remarkable increase of leprosy of late years in Honolulu may be read. The occupation of the land by the whites has probably disturbed the native plan of excreta-disposal. Instead of making the sea the common *cloaca*, as of old, I suspect that near the more populous places the Sandwich Islander is now driven by the exigencies of the position to resort to the shady ravines, where fæcal matter is deposited in large quantity and left under the requisite conditions for the mildew.

That there are weak points in the hypothesis of causation herein submitted, I am aware. Certain facts in the history of leprosy might seem at first sight impossible to reconcile with the view—for example, the former prevalence of the disease in Europe. This and many other objections have suggested themselves, but after prolonged scrutiny I have not found anything fatal to my conclusions, nor anything, indeed, that may not be shown to be in accord with them. It would take too much space, however, to deal with the subject fully, and I will therefore leave the rough sketch as it is, merely adding that observers in Norway and other cold countries where leprosy occurs have every facility for determining whether or not the excreta of households are heated by the stove-pipes or flues, and that residents in Canada and New Brunswick can readily upset or confirm the assumption as to the difference in the excreta-disposal arrangements of French and English colonists.

Melbourne, Victoria.

Death of Professor Körner.—Professor Körner, who occupied the chair of Clinical Medicine at Gratz, has lately died of meningitis, after a three days' illness. A few years ago his name was much spoken of as a probable successor to Professor Oppolzer at Vienna, although Professor Bamberger was eventually appointed.

Christianity and Medical Study in Turkey.—For the purpose of receiving information in reference to the proposed establishment of a Christian college and medical school at Aintab, in Central Turkey, a meeting, which was numerously attended, was recently held in Pall-mall at the residence of the Hon. Arthur Kinnaird, M.P. Dr. Daniel Bliss, of Beirut, and Professor K. H. Sewny, M.D., a native Armenian, were present, and addressed the assembly. The success of the medical department of the Syrian Protestant College at Beirut was considered to afford sufficient proof that such an agency is required, and may be made productive of great public benefit in Asia Minor. Aintab is about 120 miles east of the north-eastern corner of the Mediterranean. It has a population numbering more than 40,000, and the inhabitants have contributed upwards of £1400 towards the object proposed.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES OF CHOREA.

(*Continued from page* 494.)

Case 12.—*Bilateral Chorea—Treated as an Out-Patient for four weeks—Cured.*

(Under the care of Dr. SANSOM.)

M. A. W., female, aged five years and a half, was admitted an out-patient under the care of Dr. Sansom on January 6, 1874, suffering from bilateral chorea, chiefly affecting the arms.

The mother states that she first observed the choreic movements about a month ago. Can give no cause for the onset of the attack, but remembers that the child complained of pains of the limbs and joints a short time before the chorea commenced, which she thought was rheumatism. On auscultation a loud systolic mitral bruit was audible.

Two minims of Fowler's solution were given three times a day, and, as the child was said to be very restless at night, a draught containing a quarter of a grain of extract of belladonna every night.

January 20.—The child has improved in general health, and choreic movements are less marked. Sleeps well.

27th.—Still improving. Night draught to be discontinued.

February 3.—Choreic movements have entirely ceased. Bruit remains unaltered. Patient looks quite well. Discharged.

Case 13.—*Unilateral Chorea—Treated as an Out-Patient for four weeks—Cured.*

(Under the care of Dr. SANSOM.)

W. D., male, aged ten years, was admitted as an out-patient under the care of Dr. Sansom on February 4, 1874.

Has been a healthy child, and never had any symptom of chorea up to two weeks before admission, when choreic movements of the left arm were observed. He has been getting worse daily since. On admission, frequent choreic movements of the left arm and left side of the face were observed. Speech not affected. Could not hold anything in his left hand for any length of time. No cardiac murmur audible.

Was ordered three minims of Fowler's solution three times a day, and a draught containing a quarter of a grain of extract of belladonna every night.

Under this treatment the patient soon began to improve, and he was discharged cured at the end of four weeks.

Case 14.—*Unilateral Chorea—Treated as an Out-Patient for eight weeks—Cured.*

(Under the care of Dr. BATHURST WOODMAN.)

M. A. S., female, aged six years, was admitted as an out-patient under the care of Dr. Woodman on May 14, 1874.

Choreic movements were first observed about a week before admission. The left side only was affected. No cause could be given for the attack, but the mother of the child was of opinion that "she had taken it from a little boy" who was similarly affected, and with whom she was accustomed to play. A systolic hæmic murmur was audible over the heart's apex. The murmur was intensified on the patient lying down.

To take three minims of Fowler's solution and ten minims of solution of perchloride of iron three times a day. This mixture was continued for three weeks, when the arsenic was discontinued. By this time the choreic movements were much less frequent. The patient continued to take the perchloride of iron until July 9, when, having lost all symptoms of chorea, she ceased to attend the hospital.

Case 15.—*Severe General Chorea with Pericarditis—Treated as an In-Patient for seven weeks, and as an Out-Patient for four weeks—Discharged Cured.*

(Under the care of Dr. BATHURST WOODMAN.)

W. C., male, aged four years, was admitted as an in-patient under the care of Dr. Woodman on June 1, 1874.

Patient had been a healthy child up to four weeks before admission, when he complained of pains of the limbs. Shortly afterwards twitchings of the arms and legs were observed. Twitching movements of the muscles of the face followed, and

the speech also became affected. All the symptoms speedily became aggravated, and the child gradually grew worse up to the time that his mother brought him to the hospital.

On admission the patient was found to be suffering from general chorea in its worst form. He was quite unable to stand, or even to sit up in bed. Choreic movements of the arms were almost constant, and he was quite unable to hold anything in his hands. He was also unable to articulate a word, although before the present illness he could talk well for a child of his age. Was unable to drink out of a vessel or to keep the head steady for a moment. Had to be fed with liquids by means of a teaspoon. Was much wasted, anæmic, altogether helpless, and had a semi-idiotic appearance.

On auscultation a loud systolic cardiac murmur was heard at the apex, and pericardial friction-sound over the left edge of the sternum. The cardiac signs, together with the history of the case, left no doubt that the origin of the disease was rheumatic fever.

The patient was kept in bed and placed on milk and beef-tea diet. Ten grains of bromide of potassium were given three times a day.

June 8.—Slight improvement in the general condition. Sleeps well. Is able to drink from a teacup if the vessel is held to his mouth.

22nd.—Has progressed steadily since admission. Can now sit up in bed, and amuses himself by playing with toys. Cannot stand without assistance. Choreic movements are much less frequent. Can now eat solids, and is able to feed himself. Is also able to articulate a few simple words. To continue the bromide of potassium.

July 6.—Improvement continues. Is now allowed to get up a little daily. Can stand alone, but is unable to walk unless held by the hand. Speech much improved. Friction-sounds not audible. Slight choreic movements continue.

13th.—Able to walk without assistance. Speech normal. Placed on ordinary diet.

On July 21 the patient was discharged from the hospital, only slight symptoms of chorea remaining. He continued to attend as an out-patient for four weeks, during which time he took five grains of citrate of iron and ammonia three times a day. He gained considerably in weight; his face presented a ruddy appearance, and he looked perfectly intelligent. He was discharged at the end of August, having lost all symptoms of chorea.

(To be continued.)

ST. THOMAS'S HOSPITAL.

OPERATIONS ON MARCH 25.

Chronic Disease about the Hip-joint following Excision of the Joint.

(Under the care of Mr. SIMON.)

Mr. Simon operated upon a young girl about fifteen years of age. She had for a long time suffered from very severe disease of the right hip-joint, and in October last had undergone the operation for excision of the joint. It was then found that the acetabulum, as well as the head of the femur, was diseased, and a portion of the floor of that cavity was removed at the time. Latterly there had been increased suppuration, and a good deal of fulness and hardness within the pelvis. This condition Mr. Simon considered to be due to necrosis on the deep aspect of the acetabulum; and such was proved to be the case. An incision having been made down to the joint above and in front of the trochanter major, diseased pelvic bone was found, and removed, after well-directed, persevering efforts had overcome the mechanical obstacles, which rendered the operation one of much difficulty.

Scirrhus of Breast — Removal.

(Under the care of Mr. CROFT.)

A woman, aged forty-five, had, three weeks previously, noticed a small tumour in the lower margin of the right breast. The operation was performed antiseptically. Only a small portion of the mamma was removed, and the nipple was left untouched.

Cystic Tumour of Lower Jaw.

(Under the care of Mr. S. JONES.)

Female, aged seventeen. Tumour noticed a year ago. In December it was incised, and stuffed with lint. As the sinus had not closed, and as there was still a good deal of solid structure to be felt, the expanded alveolus was removed with the gouge. It was a simple growth, not involving the body of the jaw.

Castration.

(Under the care of Mr. MAC CORMAC.)

A man, aged twenty-five, first noticed an enlargement of the testicle eighteen months ago, which was thought before removal to be "cystic disease of testis." It had been tapped, and sperm-cells were seen under the microscope. On the present occasion the cord was isolated, and the clamp was applied. At the moment of its application the patient suddenly became blanched, although fully under chloroform; he quickly rallied with artificial respiration and the use of a cold wet towel. The cord was divided, and the tumour removed from above downwards. A ligature was passed by transfixion through the stump, to be used only for drawing down stump in case of any subsequent hæmorrhage. The vessels were separated and twisted. The proper gland structure of the testis, on section, appeared healthy; behind it no epididymis was to be seen, but a loculated space containing sanguineous fluid, with some nodules of almost cartilaginous hardness, was found.

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Medical Times and Gazette.

SATURDAY, MAY 13, 1876.

THE NEW ARMY MEDICAL WARRANT.

Will the general opinion with regard to the new Army Medical Warrant become more favourable as time passes, and the Warrant is more carefully and closely studied? We greatly doubt it. The boons granted by it can be very quickly and easily summed up; while some grievances (very real and of long standing) are untouched, objectionable regulations come to light, and it seems evident that not a few of the officers at present in the Service may be injuriously affected. The good points in the Warrant are:—Compulsory retirement at sixty years of age for the administrative ranks, with compensation for the loss of any additional years of service to which the seniors are entitled by the previous Warrant; this will at once cause some promotion of Deputy Surgeons-General to the rank of Surgeons-General, and of Surgeons-Major to the rank of Deputy Surgeons-General; but

the promotions thus caused cannot, we fear, be many. Surgeons-General and Deputy Surgeons-General will at once on promotion rank as Majors-General and Colonels, instead of serving for three years respectively as Brigadiers-General and Lieutenant-Colonels. Surgeons of twelve years' service will at once be made Surgeons-Major, receiving on appointment the pay of £1 a day; and this Article of the Warrant will promote a large number of Surgeons at once, and will be a great boon to all Surgeons in the future—that is, so long as this Article of the Warrant remains in force. Lastly, the pay of Surgeons on appointment is £250 a year, or, with allowances, about £300; and the rate of pay will remain the same for ten years, at the end of which time the Surgeon may, and, if he is not specially selected to remain, *must* retire from the Service, with a bonus of £1000. This, the short-service part of the Warrant, is the very foundation and support of Mr. Hardy's measure for restoring life and vigour to the Army Medical Department. The experiment is as bold as it is novel, and no one can, with any reasonable confidence, predict whether it will be a success or a failure. One thing may, however, be predicted of it with absolute safety—namely, that it will complete the destruction of the Army Medical Service as a great public service. The abolition of the regimental system was a deadly blow to it; and we do not see how a service can be animated by any strong and vitalising sense of *esprit de corps*, or any active feeling of honour as a department, or body of men, when the great majority of its members are engaged for a short term of service only, and of the rest none will have any lasting or close connexion with any portions of the greater public service of which they constitute a part.

Admission to the Department is, as before, by public competition, and, after passing through the course of instruction at Netley and the final examination, the successful candidate will receive a commission for ten years' service on full pay. At the end of that term, unless he is especially selected for further employment in the Department, or if he is unwilling to continue to serve, his services will be dispensed with, and he will receive the £1000 bonus. Should he during that period become disqualified by ill-health, "contracted in and by the service," he may, "at the discretion of the Secretary of State for War," be granted rates of half-pay of eight or of six shillings a day according as he has served more or less than five years, but for not more than six months at a time. If at the expiration of the six months he is still unable to resume duty, he will be allowed, if he has not served five years, a further period of six months, without half-pay, at the expiration of which, if still unfit for duty, his services will be dispensed with; and he will get no bonus. But if he has served five years or more on full pay he will receive a gratuity calculated at the rate of £100 a year, less by one, for the years of completed service. Article 13 of the Warrant provides that if a Surgeon is disqualified for duty by ill-health caused by vice or misconduct he shall not be allowed more than six months' leave, without pay; after which, if still unable to resume duty, his services shall be at once dispensed with, and he shall have no further claim on the Department. Every year it will be "competent for the Commander-in-Chief," on the recommendation of the Director-General of the Medical Department, "with the approval of the Secretary of State," to select a number of Surgeons, *not exceeding six*, to be retained in the Service, and these will be promoted, after twelve years' service on full pay, to the rank of Surgeon-Major. We feel confident that Mr. Hardy will not by this scheme obtain the best men of our medical schools, nor even the best after the wants of the Indian Medical Service have been supplied. And we greatly doubt if he will obtain year after year the number of medical officers that he will require, though as nothing is said about the age of candidates for the Service it is probably intended to admit them at a greater age than hitherto. The field of competition will thus be widened, and a considerable increase of candidates, "of sorts," may no doubt be thus obtained, but it remains to be seen whether *desirable* men will come forward in sufficient number. We much doubt whether the permanent service is made attractive enough for that. No concession is made regarding the forage grievance; the Surgeons-Major rank as field officers, but they are only to be granted forage allowance for such horses as are *necessarily* kept by them for duty. Over and over again redress of this grievance has been urged upon the authorities, but still nothing has been done. Then the medical officer still remains at great and grievous disadvantage, compared with combatant officers, with regard to sick leave. If a combatant officer is disqualified for duty by ill-health he gets eighteen months' or two years' sick leave on full pay before he is, if still disqualified, placed on half-pay; while a medical officer is allowed only six months' sick leave on full pay. This difference is, to our mind, a most weighty and serious grievance, and altogether indefensible. We observe that the new Warrant provides that "the pay of officers shall be issued monthly in arrear." This is, we suppose, because they are no longer regimental officers; but it appears to be one of those petty changes that may be very annoying and inconvenient. And generally, it seems as though the medical officers were doomed to lose the advantages of being regimental officers without gaining the full advantages, in allowances, etc., of being on the staff.

Lastly, the Warrant as it stands inflicts, or seems to do so, injury on some of the Surgeons-Major now in the Service. It provides that the Surgeon-Major, "after five years' service as such," shall get £1 5s. a day, instead of £1, and then no further increase of pay till he is promoted; while by the Warrant of 1873 the Surgeon-Major, after twenty-five years' service, had £1 7s. a day. Is the difference of 2s. a day to be lost to all present Surgeons-Major? It must be remembered that present Surgeons-Major have gained promotion to that grade after longer service than will be the case in the future, and that in that rank, if obtained under fifteen years' service, they at first received only 17s. 6d. a day. This is one of the points in which it seems that officers now in the Service may be injured, unless the new Warrant is considerately and even generously administered.

We have surely showed cause enough to justify our warning all tempted candidates to consider very carefully the whole Warrant before attempting to enter the Service; and we would only advise them further to remember that Army Medical Warrants have shown great capacities for change or supersession, and for strange and unexpected phases of interpretation by the authorities.

LUNACY AND SCIENCE.

None of our large public institutions are so completely under medical supervision and control as pauper lunatic asylums. The medical superintendent of such an asylum, if he is on good terms with his visiting committee, rules his petty kingdom in a manner which is little short of autocratic. He not only controls his patients, but in addition regulates the conduct and corrects the morals of the large and varied body of sane men and women who constitute his staff. He dispenses the law and administers sumptuary regulations in a manner which throws the later law-givers of the Roman Empire into the shade. His functions are of the most diverse character, and his faculties are correspondingly varied. He must have

"An eye like Mars to threaten and command,"

under circumstances where the personal influence of the doctor has to take the place of the personal restraint of the patient. He must have a mind capable of gliding at once from the contemplation of the physiological actions of a new narcotic,

to the determination of the perviousness of a closet-pipe. Whitewash must at times distract his thoughts from psychology, and attention to the higher principles of ventilation must be varied by the occasional rescue of some demented wight from the opposite extreme of being

"Fanned by soft zephyrs through a broken pane."

He must have an ear for the complaints of every mendacious epileptic, an eye for recent bruises, and a nose for drains; and even his palate must not be so fastidious as to resent occasional contact with hashed Australian mutton, or disdain contamination with gummy steamed potatoes. But if the diversity of his duties is great, it is not without its advantages: it conduces to the development of his powers of observation, and tends to obviate the liability to becoming narrowed down to a limited course of thought and action.

And when the extent of the materials with which the scientific superintendent of an asylum has to deal are taken into consideration, it is at once seen how necessary it is that he should have a mind capable of taking wide views of things, and a decided faculty, so to speak, of editing the abnormal works of nature as they are manifested in the pathological conditions which give rise to the mental and bodily peculiarities of his patients. The observation of the "experiments of nature" has been the entrance upon a new philosophy; and in no department of science is there a richer promise, or a more decided, if limited, realisation of great results, than in the study of the anomalous operations of nature as evidenced in diseases of the brain.

On such grounds, it is with pleasure that we draw attention to the remarks made by Dr. Crichton Browne, at a banquet commemorative of his assumption of the duties of Lord Chancellor's Visitor of Lunatics, and of his severance from the large body of friends and professional associates whom he has drawn around him in the West Riding of Yorkshire. Dr. Browne is reported as having affirmed that the humane method of treating the insane commenced only when Science lent her aid in the interpretation of the phenomena of insanity. "So long as the insane were regarded with superstition as the victims of Divine wrath, they were treated with great cruelty. It was only when Science stepped in, and showed that they were labouring under the affliction of diseased and disordered brains, that they were relieved from barbarous restraints and treated with forbearance and gentleness." However gratifying it must have been to Dr. Browne to listen to the laudations of his lay and professional friends, and especially to obtain a public expression of the great esteem and admiration of a friend like Lord Houghton, it must be still more pleasing to him to be able to leave behind him such a monument of the combination of science and humanity as that which he has built up for himself in the West Riding Asylum. We refer to personal matters to this extent in order that we may have the opportunity of advising others, in similar positions to that which Dr. Browne has occupied, to follow his example in enriching science by circulating the wealth of observation which all of them can so readily coin; in imparting to the raw material of science, which all superintendents of asylums can so easily collect, that imprint of their own mental character which will give a special value to the simplest facts, and to some extent compensate general society for the social impoverishment incidental to the very existence of such material as they usually have to deal with. It cannot fall to the lot of all superintendents of asylums to meet with generous committees ready to act in harmonious concord with their medical advisers, and willing to take a wide view of the principles involved in the prevention, cure, and utilisation of insanity. It is impossible that every man at the head of a home for the insane can act at the same time as the professional Mæcenas of a county. Unfortunately some committees of justices entrusted with the management of asylums attach more importance to a knowledge of and compliance with the rubric as a special qualification for the management of lunatics, than they do to a scientific turn of mind and the evidence of accomplished scientific work. Others tend to look askance at science as likely to lead indirectly to an increased rate of maintenance. It is unnecessary in our columns to expose the fallacy of these notions, but if our voice should be able to reach the lay administrators of such institutions, we would anxiously endeavour to persuade them that no mode of procedure could be more suicidal to the interests of the insane than this; and that, on the other hand, nothing could tend more to the lightening of their own responsibilities, and the promotion of the highest good of the stricken and afflicted members of the community of whom they are the voluntary curators, than the appointment of such medical superintendents as will, by a reputation for science and humanity, establish in the minds of patients' friends and of ratepayers the conviction to which Mr. Spencer Stanhope has given expression—that lunatic asylums are "not merely places for the custody of excited persons, but hospitals for the cure of mental diseases."

THE DEBATE ON SYPHILIS.

No. IV.

What have we learned with regard to the laws governing the transmission of acquired syphilis? First comes Mr. Berkeley Hill's statement that the severity of acquired disease is greater in proportion as the disease of the donor is in an early stage. This opinion will, we think, accord with that of most surgeons, as will also that which makes the same rule apply to hereditary syphilis. But we sadly want facts rather than opinions, and it is to be regretted that more have not been forthcoming from our Lock hospitals and children's hospitals. Mr. Hutchinson's experience was valuable on this question of transmission. He limits the power of syphilis in this respect to usually less than two years after the disappearance of secondaries. We regret, however, that he did not bring this result of his experience forward at the commencement of the debate, as it is certain that more practical value would have resulted from it. On the other hand, an impression seems to have pervaded the minds of several speakers that no limit to the time of contagiousness could be given. But as our knowledge stands now, we can only say with certainty that all manifestations of the disease during the first year or two are inoculable, and during this time the blood, and more rarely other physiological secretions, contain the syphilitic poison.

What have we learned with regard to the laws of protection against syphilis? Nothing has been brought forward to overthrow the doctrine of one attack of syphilis giving absolute protection against a second. Lancereaux makes mention of several cases of second infection which have been recorded, but not in detail, and he gives a rather qualified assent to them. Still, it would be strange indeed if a second inoculation did not sometimes occur. Syphilis is eccentric enough already; but it would be more eccentric still if it refused invariably to let its stamp be worn out by time. Moreover, we see cases of acquired syphilis in patients whose appearance leads one to the conclusion that they have been the subjects of congenital syphilis, and thus the protecting power of the contagium must have worn itself out. Colles' law was subscribed to by Mr. Hutchinson in his reply, and it is one upon which we shall be glad to see Mr. Hutchinson's promises fulfilled by publishing his observations on that and kindred subjects. By this law the mother of a child infected by the father is protected against the disease by having it in a very modified form. Just as vaccine, which is variola passed through a different animal, gives protection against variola, so here sperm-begotten fœtal syphilis is inoculated into the

mother and gives protection against ordinary syphilis, and the sperm-begotten syphilis produces in the mother no external signs. Can we accept Dr. Wilks' suggestion that protection against tertiary manifestations is given by the copiousness of the secondary? Mr. Berkeley Hill and others supported this view, which was originally thrown out in a crude form by Lancereaux. We are not as yet prepared to accept it, and would be glad to see it worked out more thoroughly. Meanwhile, we must bear in mind that an exactly opposite opinion is held by very eminent authorities. Diday, for instance, urges that the first syphilide is the most valuable sign to rely upon, and that, in fact, the greater or less intensity of the prodromata shows only the less or greater power of resistance in the constitution.

While considering the means of protection we may glance at the questions raised by Mr. John Wood, "Is syphilis milder now than formerly? And if so, is this due to general syphilisation?" That it has become milder, even in our own time, is the experience of most living surgeons of thirty or forty years' standing, but that it is due to gradual syphilisation is not by any means so certain. Doubtless, much more is due to improved hygienic conditions, and the horrors of the Naples epidemic are not likely to be repeated while public attention is given to the laws of sanitation. It is equally possible that the more judicious use of calomel is now attended with less serious symptoms.

Mr. Pollock drew attention to the influence of climate and race upon the severity of the disease, and appeared to support Gauthier's view, that syphilis may become aggravated by transmission from one race to another. But this appears to us to require confirmation. That climate influences the nature of the symptoms seems, however, only reasonable, since climate will bring into excessive functional activity different organs, and make them more or less liable to the poison.

That there are individual differences in the power of receiving syphilis is generally accepted, but hitherto nothing definite has been arrived at which will aid us in prognosis in any particular case. Basserdan, indeed, says that no temperament, no constitution can be regarded as disposing particularly to the generalisation of syphilitic symptoms. We think that further observations in this direction might be made with benefit, as our means of arriving at a conclusion are at present only scanty. A suggestion of some importance was made by Sir James Paget, that individual peculiarities especially affect the tertiary manifestations, because the syphilitic poison has by that period lost much of its power, and the idiosyncrasy of the individual is then declaring itself.

What have we learned with regard to transformation? One of the questions on which there was unanimity of opinion was that syphilis did not specially predispose to scrofula. It seemed generally accepted that syphilis was not scrofula, but that as scrofula was a manifestation of low vitality, so syphilis, in common with other deteriorating influences, tended to the appearance of scrofula in an individual. This view was forcibly urged by Dr. Greenfield, who even went so far as to suggest that some of the ordinary after-results of syphilis might be classed as those of malnutrition rather than as consequences of the specific poison.

With reference to hereditary disease, what have we learned? Here we are met with an important divergence of opinion. One class of pathologists accepts hereditary disease as affecting the fœtus *ab initio*. These authorities look upon the disease as sperm-begotten, and showing itself in some form or other from the very first. The second class of pathologists looks upon the disease as acquired, and therefore manifesting itself in much the same way as in adults. These authorities practically deny that syphilis can be transmitted by the sperm directly. The balance of evidence, however, is in favour of both views being at different times correct. The observations of Kassowitz on this point are important, and have already been detailed in this journal (*Medical Times and Gazette*, March 4). But attention has been called during the debate to the nature of the pathological lesions of hereditary syphilis, and it is to be hoped that the Pathological Society will be able to throw some light on these. Meanwhile, we may ask again, What evidence is forthcoming as to the protective influence of infantile acquired syphilis against subsequent syphilis?

We must refer again to the very important question as regards Colles' law, which Mr. Hutchinson referred to in his reply. A mother bearing a syphilitic child, she herself never having had the disease, is protected against syphilis. If true, he then asks, What are the ulterior liabilities of the mother? Can the taint be transmitted to her offspring born subsequently to a healthy father? Is her blood at any period contagious, or the disease inoculable by it? Does the taint in her last as long as when the disease is acquired in the ordinary way?

Among the suggestions which have arisen during the debate, we may point to that by Mr. Simon, that pathologists in family practice should take careful note of the ulterior effects of syphilis in the individuals themselves, in their offspring, and in the third generation. Dr. Broadbent put the question, Can a woman contaminated by a syphilitic fœtus go straight to the tertiary form of the disease? But the answer to this is involved in Mr. Hutchinson's inquiry into the truth of Colles' law. Other suggestions made by Mr. Hutchinson are very important, and deal essentially with the philosophy of contagion and the scientific examination of specific fevers, and these points can be best seen by a perusal of his reply.

This debate has been one of great importance, and we congratulate the Pathological Society upon the stimulus to observation which it will give. Debates like this do not show their results immediately. They bring to light the experience of those whose opportunities are large, and leave with us a means of knowing the opinions of different schools of thought. Few are immediately converted by the arguments, but the arguments remain for digestion by those who will examine them. Moreover, we require a periodical examination of our opinions, to see what foundation they are grounded upon; for opinions are subject to such constant variation, and develope other new and often such eccentric opinions, that they require to be overlooked from time to time.

We close this review of the debate with a feeling that the discussion has been a profitable one, and one that will bear, eventually, good fruit. We look forward to the further outcome with considerable interest; and this is a fitting end to our pathological feast—we leave off with an appetite for more.

THE WEEK.

TOPICS OF THE DAY.

The residents in the city of Dublin will have heard with much pleasure the steps which (as we published last week) have been taken to improve the dwellings of the working-classes in that locality. The excessive death-rate of Dublin has been, and is, a subject of much anxiety to all its residents, and the efforts to reduce it to the average of other large cities have been received with much satisfaction. The insalubrity is traced to various causes, but the most probable are the want of a proper system of drainage, and the condition of the streets and houses occupied by the labouring classes. This latter difficulty may now be ameliorated by the action of the committee which has been formed to report on the subject; but for the former there would seem to be no immediate prospect of relief, as the main drainage scheme has broken down, and the Corporation cannot (as they say themselves), their funds being insufficient, or will not (as the public say) keep the thoroughfares clean, and the effect of their present state is that there are constant exhalations which are injurious to the public

health. The want of a Building Act in Dublin is also a serious drawback to any improvement, and efforts are now being made to have this want supplied, the subject having recently been discussed at a meeting of the Corporation.

A meeting was held last week in the Jerusalem Chamber, Westminster Abbey, to consider the best means of giving effect to the suggestion of Lord Hatherley, made in a letter in the *Times* of the 21st ult., that the most enduring and appropriate memorial of the late Lady Augusta Stanley would be to place the Westminster Training School and Home for Nurses on a solid and permanent foundation, and associate her name with it. Lord Hatherley took the chair, and opened the proceedings by reading a letter from Dean Stanley, explaining the interest which his late wife had always taken in the establishment of a Home for Nurses, and the gratitude with which he should hear that her name had been inseparably connected with so beneficent an institution. The chairman also read letters from the Duke of Westminster, who sent a donation of £500; the Speaker of the House of Commons; Mr. W. H. Smith, M.P., who sent £100; Lord Overstone, who sent £100; and several others. He said that the Westminster Nurses' Home had been in existence about eighteen months. Its operations were carried on in a small rented building, which would accommodate only twelve nurses; and the object of the meeting was to erect a larger building for the purpose. When erected, there was no doubt it would be to a large degree self-supporting, and it would provide skilled nurses for rich and poor; and, in proportion as it did its work well, the poor in the Westminster Hospital, with which the Home was associated, would be properly and well cared for. Resolutions embodying the views of the meeting were then proposed and carried, and a committee appointed to carry out the details. Several subscriptions and promises were received, making, with £1000 in hand, about £2000. It is estimated that £12,000 will be required if a freehold site for the purpose is to be purchased.

The *Manchester Examiner* reports that overtures have been made to the Corporation of Salford by a wealthy gentleman connected with the borough, for the transfer to the Corporation of a suitable site and buildings outside the borough for the purposes of a convalescent hospital. The value of the proposed gift is estimated at upwards of £20,000. The *Norfolk Chronicle* also states that the friends of the Norfolk and Norwich Hospital will hear with pleasure that the Lord Lieutenant has promised £5000 towards the extension of the building, provided that £30,000 additional is promised within twelve months' time.

At a meeting of the Brentford Local Board, held last week, a statement was read by the Sanitary Committee on a report by Colonel Ponsonby Cox, R.E., on the drainage of the Thames Valley, recommending the abandonment of the Bazalgette scheme proposed by the Surbiton Commissioners, and the substitution of unions of smaller dimensions. The Committee advise the Board not to take any steps until it has become informed of the views of the Local Government Board on this subject.

The Marquis of Bute, as President of the Hospital for Diseases of the Throat, has addressed a communication to the papers, in which he states that Madame Christine Nilsson has kindly consented to give a concert at St. James's Hall on the 24th inst., on behalf of the building fund of the institution. His lordship states that the present building, which consists of two dwelling-houses adapted to hospital purposes, has now become quite inadequate for the reception of the daily increasing number of applicants for relief. The amount required for the purchase of the site for a new building having been raised, the Committee now earnestly appeal for funds to enable them to construct a hospital with at least fifty beds, and provided with the improvements which modern sanitary science requires.

At the Worship-street Police-court, last week, Mr. Enoch Walker, Vestry Clerk of the Parish of St. Leonard, Shoreditch, attended to support summonses taken out against several dairymen and cowkeepers for having on their respective premises a foul well containing water in such a state as to be a nuisance and injurious to health. The cases were taken *seriatim*, and the existence of the wells on the premises of each defendant was proved by the inspector of nuisances to the parish. Samples of the water had been submitted to Dr. Stevenson, Guy's Hospital, and to Professor Wanklyn. In each case it appeared that the water was in use on the premises for all drinking and domestic purposes. The scientific evidence went to show that, on analysis, the water was found to be highly polluted, and both Professor Wanklyn and Dr. Stevenson agreed in describing it as "diluted sewage." Its condition was illustrated in court; a sample of the well-water, and another from the New River mains, were put into tubes by Dr. Stevenson, and the different appearance was then observable by the naked eye. Nessler's test was then applied, which speedily turned the well-water sample to a thick yellow colour, with a deposit at the bottom of the tube; whilst the New River sample was perfectly unaffected. In two cases the magistrate made an order for the closing of the wells within fourteen days, but the proprietor of one of them (Evan Meredith) asked for two months' grace, deposing that the well had been in use for twenty years, and that there was not a butt or tank on the premises. Dr. Stevenson said that in Meredith's case the water was so highly polluted as to be dangerous, and the magistrate refused to allow more than fourteen days. The other cases were adjourned, it being stated that the defendants were anxious to call scientific evidence on their side.

On Saturday evening last an inquest was held on the body of Edward Wellesley, a Chelsea pensioner, seventy-eight years of age. He was an inmate of St. Pancras Workhouse, and had been on the previous Monday to receive his pension. On his way back he trod upon a piece of orange-peel lying on the pavement, and fell, producing concussion of the brain. A verdict of accidental death was returned, the coroner remarking upon the danger of the practice of carelessly throwing orange-peel upon the pavement.

The general abstract of the number of marriages, births, and deaths registered in Ireland during the year 1875 has just been published by the Registrar-General for that country. The births registered during the year amounted to 138,382, affording a ratio of 1 in every 38·4, or 26·1 per 1000 of the population, against an average rate of 26·9 per 1000 for the previous ten years. The number of deaths registered was 98,243, equal to a ratio of 1 in every 54, or 18·5 per 1000 of the population, being 1·5 per 1000 over the average rate of the ten years 1865-74. Of these deaths, 13,135, or 13·4 per cent., were of children under one year of age, and 39,450, or 40·2 per cent., were of persons aged sixty and upwards. During the year, 11,379 deaths were recorded as having occurred from the eight principal zymotic diseases, being 11·6 per cent. of the total deaths, and equal to 2·14 in every 1000 persons living. Of these, 543 were caused by small-pox, nearly all of which took place in the province of Connaught; 792 by measles; as many as 3635 by scarlet fever, which was epidemic in the province of Ulster; 468 by diphtheria; 1356 by whooping-cough; 2661 by fever; 1877 by diarrhœa; and 47 by simple cholera. There were 2707 inquests reported to the registrars, being 1 inquest to every 36 deaths registered. The returns show that the emigration during the year in question was comparatively small, the number of emigrants equalling only 97 in every 10,000 of the estimated population, against an annual average of 146 in every 10,000 for the previous ten

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years, and being the lowest number recorded in any year since the collection of emigration returns through the Registrar-General's department commenced in 1851. The estimated population of Ireland in the middle of the year 1875 was 5,309,494.

The Sanitary Authority at Oldham has reported that the prevalence of typhoid fever in that town is in all probability largely due to the adulteration of the milk-supply with poisoned water. The medical officer has presented a report on the state of several dairy farms, which is even more disgusting than the revelations which followed upon the outbreak of typhoid fever at Eagley. During April there were forty-six cases of typhoid fever in the town, and seventeen deaths; and the dairy farms in several cases appear to have been used as "tips" for town refuse and the offal of the slaughter-houses.

An important statement was made to the Metropolitan Asylums Board, at their meeting last week, by Mr. J. Shaw Stewart, the chairman of the Stockwell Fever and Small-pox Hospitals, regarding the increase of small-pox, which has quickly risen from one case reported for the whole metropolis to twenty-four. Mr. Stewart read the statement of John Burns, a patient in the Small-pox Hospital, who said that he had lately come from the Seamen's Hospital at Greenwich, where he had stayed seventeen days. Two days after he was admitted at the Seamen's Hospital he came out in an eruption, and he was kept there fifteen days longer. Since the man had been at Stockwell—and he was admitted there in a convalescent condition—seven other men who had been patients in the Seamen's Hospital had been admitted to Stockwell suffering from small-pox. These had been sent from Stepney and other unions. If the statement of Burns turned out to be true, no more certain means could be taken to spread the plague of small-pox than to keep a man suffering from the disease in a place where seamen of all nations were gathered together; and it would appear as if great mischief had already been done. He therefore moved that the matter be reported to the Local Government Board, in order that the officials of the Central Authority should make inquiry into the matter. The motion was carried, and Dr. Bridges, of the Local Government Board, said the subject should be reported. The reports of the fever hospitals were presented, showing that there was a decrease of fever over the metropolis. In Stockwell only one case of typhus was among the nineteen cases received, and that was from Chelsea, while there were nine at Homerton in the twenty-eight cases received there. Of these nine no fewer than five came from Holborn, so that this Union has sent as many typhus cases in a fortnight as all the rest of London put together.

The Liverpool Town Council have this week been discussing a scheme for obtaining an additional supply of water from Lake Windermere. The estimated cost of such an undertaking is set down at £1,500,000. The further consideration of the matter was adjourned for a fortnight.

We learn that Sir Joseph Fayrer's friends of the Indian Medical Service have invited him to dine with them at St. James's Hall on May 24, at 7.30 p.m. Gentlemen desiring to take part in this welcome to Sir Joseph on his return to England can obtain tickets from the Manager, St. James's Hall.

Professor Tyndall has been presented by the Royal Institution with a piece of plate and a purse containing 300 guineas, as a congratulatory testimonial on his recent marriage.

Her Majesty has been graciously pleased to confer the Companionship of the Order of the Bath, Civil Division, on Mr. John Simon, Medical Officer of the Privy Council and the Local Government Board.

DR. TIDY AND THE PROFESSION IN ISLINGTON.

We are not surprised to hear that Dr. Tidy's report on the state of health in the parish of St. Mary's, Islington, for last year has given great offence to some of the medical practitioners of the district. In referring to the deaths from puerperal fever and peritonitis, which were above the average in Islington last year, Dr. Tidy hinted pretty plainly that medical men were themselves much to blame for the deaths of their patients from these fatal diseases. He said—"The necessity for never relaxing care may be the lesson our profession should learn from these facts, and I trust I may be pardoned referring to what, perhaps, may be now and then—I do not say forgotten, but—by pressure of work, overlooked. It is clearly our duty to watch with jealous eye every possible inlet through which disease may find its way into the body. Our profession is doing a great work when it busies itself in curing disease; but it is doing an infinitely greater work in endeavouring to prevent it. Of curative medicine it may be said that it has saved its thousands; but of preventive medicine, that it has saved its tens of thousands. Through every possible crack and crevice, and when we least expect it, disease finds an entrance. Of course, we see plainly enough how it gets in when it comes through the widely opened door. But this is not its usual way, and it is more difficult to be on the alert when it comes in an unexpected manner and at an unexpected time. We see, moreover, the open door clearly enough when other people leave it open, but we do not see it quite so readily when we leave it open ourselves. Churches, chapels, schools, large assemblies of every kind, the waiting-rooms of hospitals and dispensaries, public conveyances, perchance even circulating libraries, books or tracts, may have much or little to answer for, but the medical profession must remember the possibility that they may themselves act as the carriers as well as the curers of disease. I wish I could feel that it was unnecessary to mention so ugly a fact, but the remedy is only to be found in thoroughly grasping the difficulty. It is folly to preach that we as a profession possess any peculiar or special immunity from disease ourselves, and the day, I hope, has for ever gone by when we should attempt to persuade the public that we are in the possession of some secret drug—some alchemical elixir—some patent nostrum whereby we alone of all men fail to spread disease in the course of our daily rounds. We carry with us no charmed life, no supernatural existence, rendering us exceptions to the ordinary laws of disease governing the lives of men generally. I have been painfully impressed with certain cases of late which leave me but little reason to doubt what has been the true cause of an outbreak of infectious disease in a family known to me. Of course, the physician must visit more than one patient a day, and he must be at the bedside of infectious cases; but the least he can do, after seeing a patient suffering from a disease possible of communication, is to adopt every means in his power to prevent his being the innocent cause of its spread, and more especially should this be the case when he is called to the bedside of one who is peculiarly ready to receive the seeds of diseases which prove in her case so invariably fatal, and so rob her of life at the very moment she is giving life to another." There may be some truth in Dr. Tidy's remarks, but it is felt that, if he wanted to read the profession a lecture, he might have found a less objectionable way of doing it than by writing a sensational paragraph for circulation among the general public. The objectionable paragraph was the subject of discussion at the meeting of the Islington Medical Society a few evenings ago, and strong opinions were expressed by the members that Dr. Tidy's remarks were unjustifiable. Dr. Tidy was present, and gave the reasons that induced him to write in the way he did on the subject; but although no formal

resolution was passed, the general feeling of the meeting as to the remarks being uncalled for remained unchanged.

MEMORIAL TO THE LATE DR. PARKES, F.R.S.

THERE is such widespread expectation and desire to see some memorial raised to the late Dr. Parkes, that we have much pleasure in stating that at a meeting of army medical officers, held in the Mess-room at Netley, April 20, 1876, the Principal Medical Officer in the chair, the following resolutions were unanimously agreed upon:—1. Proposed by Surgeon-General Longmore, C.B., seconded by Surgeon-General Maclean, C.B.—"That it is desirable to establish a permanent memorial of the late Dr. Parkes, Professor of Hygiene in the Army Medical School." 2. Proposed by Surgeon-Major J. Coates, M.D., seconded by Surgeon-Major G. Pain—"That the memorial consist of a portrait, to be painted by an eminent artist, which should be placed in the mess-room of the head-quarters of the Army Medical Department, whether at Netley or elsewhere; and of a replica of the bust of Dr. Parkes, now at University College, to be placed in the lecture-room of the Army Medical School; and, further, if the fund collected admit of it, the foundation of a Parkes Scholarship, or Prize, to be competed for in the Army Medical School." 3. Proposed by Surgeon-Major J. H. Porter, seconded by Surgeon J. O'Reilly, M.B.—"That all medical officers in the Army, Naval, and Indian Public Services be requested to subscribe; and that contributions be also received from any other friends and admirers of Dr. Parkes who may wish to join in the memorial." It was also resolved—"That the subscription from officers be limited to one day's pay"; and "That the following gentlemen be appointed to act as a local committee to carry out the objects of the meeting:—*President:* Surgeon-General Longmore, C.B. *Members:* Surgeon-General Maclean, C.B.; Deputy Inspector-General J. D. Macdonald, F.R.S., R.N.; Surgeon-Major J. Coates, M.D.; Surgeon-Major J. H. Porter; Surgeon-Major W. M. Webb; Surgeon-Major D. Cullen, M.D.; Surgeon-Major C. Rattray, M.D.; Surgeon-Major W. Cherry; Surgeon-Major F. Welch; Surgeon A. B. Robinson; Surgeon J. O'Reilly, M.B.; Dr. Aitken, F.R.S.; Surgeon-Major C. D. Madden; Surgeon-Major G. Pain; Surgeon-Major T. M. Bleckley, M.D., C.B.; Staff Surgeon W. F. C. Bartlett, R.N.; Surgeon-Major R. Waters, M.D.; Surgeon-Major T. W. Wright; Surgeon-Major S. G. White, M.D.; Surgeon J. Fleming, M.D.; Surgeon R. Bowman, H.M.'s Indian Medical Service; Surgeon A. S. Lethbridge, H.M.'s Indian Medical Service. *Treasurer:* Surgeon-Major F. S. B. F. De Chaumont, M.D. *Secretary:* Surgeon G. E. Dobson, M.B." It is intended, we believe, if the funds received will admit of it, to send a heliotype (cabinet size) of the portrait to each subscriber.

MEDICAL MEN ON GIVING NOTICE OF INFECTIOUS DISEASE.

AN attempt is being made by the Corporation of Huddersfield to get a clause inserted in the "Huddersfield Waterworks and Improvement Bill," now before Parliament, to make the local medical practitioners act as informers in every case of infectious disease to which they may be called. The medical men of the town are, most rightly, taking active steps to oppose such an unpleasant duty being forced upon them, and have held a meeting, at which the following resolutions were unanimously adopted:—"That this meeting is of opinion that, while medical men will be always willing to advise the householder in whose house a case of infectious disease may occur as to the best means of preventing the spread of the disease, and even to advise him to communicate with the sanitary authority, they, nevertheless, consider it oppressive, unnecessary, and unjust, that it should be made a penal offence for a medical man to fail to report the existence of infection." "That this meeting considers that such a clause as the one proposed, to compel medical men to report all cases of infectious disease, would defeat its own purpose; for many cases of infectious disease, considered by the friends of the patients as slight in their nature or doubtful in their character, would in consequence never come under the cognisance of the profession, and either not be treated at all or be treated by unqualified practitioners, who would not be compelled to report such cases, and thus the spread of such diseases would be increased rather than diminished." As the profession in Huddersfield have thus taken such a decided position in opposing the proposed regulation, it is to be hoped that the Corporation will withdraw the objectionable clause. Whether they do or do not, we cannot believe that Parliament is as yet prepared to cast such a burden on the shoulders of medical men, in Huddersfield or elsewhere.

CITY WATER.

A CASE has twice come before a City magistrate which we can hardly allow to pass without some comments. Dr. Sedgwick Saunders, the Medical Officer of Health for the City, most properly brought up the case of certain houses in Queen Victoria-street, where the proprietor, to avoid the somewhat onerous charges of the New River Company, had caused a well or wells to be dug in order to supply the houses with water. As could easily be imagined, this water was hardly of a kind to be employed for domestic purposes, though varying in quality from time to time,—this, by-the-bye, being one of the worst characteristics of a water. The application was to close the well, and this should promptly have been done, but the owner was let off on condition that the water should never be used for drinking purposes. We cannot help thinking this an utterly lame and impotent conclusion, for when water is readily available it is impossible to limit its application to any given set of purposes. Moreover, as is well known, some people prefer the dangerous, but cool and sparkling, well-water to the flat and tepid supply of the water company. Be that as it may, the teaching of the Marylebone milk epidemic should not yet be forgotten.

PATHOLOGICAL SOCIETY OF DUBLIN.

THE closing meeting of this Society for the session 1875-76 took place on Saturday afternoon, the 6th inst., in the Anatomical Theatre of the School of Physic, Trinity College; Dr. Henry Kennedy, the President, occupied the chair. The following specimens were submitted to the Society:—A case of coincident enteric fever and scarlatina in a girl aged eighteen, with diphtheritic exudation on the pharynx, and engorgement of Peyer's patches, by Dr. Nixon; a case where pressure by enlarged bronchial glands simulated the presence of thoracic aneurism, by Dr. Finny; a case of narrowing of the thoracic aorta above the sigmoid valves, in a boy aged fourteen, by Dr. W. G. Smith; a case of enormous thoracic aneurism, causing death by pressure on the left bronchus, which, in turn, induced collapse of the left lung and hydrothorax *e vacuo*, in a man aged sixty-seven years, by Dr. J. W. Moore; and an abscess of the spleen in enteric fever, by Dr. Nixon. The Society's Gold Medal was awarded to "Πεῖρα" for his essay on "Bursitis: its Pathology Symptoms, Diagnosis, and Treatment." On opening the sealed envelope containing his real name, the successful essayist proved to be Mr. J. B. Beattie, of Steevens' Hospital.

PRESENTATION TO DR. CRICHTON BROWNE.

ON Wednesday, May 10, a meeting of the past medical officers and others associated with the West Riding Asylum was held at 6, Trevor-terrace, to present Dr. James Crichton Browne with a testimonial. The gift consisted of a handsome tea and coffee service, and also a pair of antique silver cups for the dining-table. The following gentlemen subscribed towards the testimonial:—Dr. C. Aldridge, Dr. Lennox Browne, Dr.

Lauder Brunton, Dr. Wilkio Burman, Mr. W. C. S. Clapham, Dr. E. Mazierc Courtenay, Mr. Watson Dove, Dr. D. Ferrier, Dr. Milner Fothergill, Dr. E. C. Fox, Dr. Galton, Dr. Hughlings-Jackson, Dr. A. Lawrence, Dr. R. Lawson, Dr. Liveing, Dr. Lowe, Dr. H. Major, Dr. Mayhew, Dr. J. Merson, Dr. S. Mitchell, Dr. C. F. Newcombe, Mr. G. H. Pedler, Dr. Octavius Sankey, Dr. H. Sutherland, Dr. Wallis, Dr. Bywater Ward, Dr. J. Ferra Watson, Dr. Woods, Dr. F. W. Wright, Dr. T. G. Wright.

THE HEALTH OF SUNDERLAND.

Dr. Henry J. Yeld, the Medical Officer of Health and Public Analyst for Sunderland, has published his annual report on the health of the borough for the year 1875. Taking into consideration the surroundings of the town of Sunderland, it is a matter of some surprise to find that, according to the returns of the Registrar-General, it is one of the two healthiest towns in England, Portsmouth being recorded as the other. Notwithstanding a severe and fatal epidemic of whooping-cough, and an estimated increase of 3000 to the population, the total number of deaths was fifty less than in the previous year. In the Sunderland district, where the population is very dense and the people themselves belong to the very lowest class of society, the death-rate, which a few years ago used to be at the rate of 30 per 1000, last year was but 24·6. This reduction of the rate is attributed to the working of the Town Improvement Bill, by which all the old fever-dens and close lanes and alleys have been swept away. Dr. Yeld, in his report, bears testimony to the necessity which exists for some legislatory enactment by which all medical officers of health shall be immediately apprised of every outbreak of infectious disease in their districts; and he quotes two instances, out of many in his recent experience, showing the advantages which would accrue from a stringent law on the subject. A young man came home ill from sea, and died from typhus fever. On the inspector visiting the house after the funeral, for the purpose of disinfecting it, he found a number of women sitting drinking in the room in which the patient had died. He remonstrated with them to no purpose—they would not leave; so he at once set fire to some sulphur, and, the fumes becoming unbearable, they rushed out, carrying their bottles with them. In the second instance, scarlatina broke out in a shop at the corner of a street. The circumstance was kept very quiet, and no information was given to anyone, the result being that scarcely a family in the whole street escaped the infection. Between thirty and forty persons of all ages were attacked by the disease, which fortunately, however, was only fatal in one case. This outbreak might very possibly have been prevented, had the medical officer been communicated with in time to secure isolation on the appearance of the disease.

DEATH OF M. BÉHIER.

M. Béhier, Professor of Clinical Medicine in the Hôtel-Dieu, died in Paris on Sunday, the 8th inst., and was buried on the 10th in the presence of the principal members of the profession and an immense gathering of medical students. Born in 1813, Béhier has had a highly distinguished career as a physician. For eleven years he has been on the visiting staff at the Hôtel-Dieu, and for several years Professor of Clinical Medicine. He died of a lingering disease, but worked to the last among the patients and students. The lament for him is very great in Paris, which can ill afford to lose so energetic and popular a teacher, or so skilled and amiable a member of the profession.

EXCISION OF THE SCAPULA.

On Wednesday last Mr. Mac Cormac excised the scapula and outer end of the clavicle for a very large tumour of the former bone. The nature of the growth was a mixed enchondroma and myxoma. The operation was completed in twenty-four minutes. There was very little hæmorrhage, although the subclavian artery was exposed and the subscapula had, of course, to be divided. After the operation, the flaps of skin fell together readily, although a good portion of the integument had to be removed with the growth.

THE OBSTETRICAL SOCIETY'S CONVERSAZIONE.

The *conversazione* given by the Obstetrical Society in the Royal College of Physicians, by the permission of the College authorities, was a decided success. Much care and pains had been bestowed by the secretaries, Drs. Wiltshire and Edis, to make the affair go off well, and in this they succeeded admirably. Visitors were received by the President, Dr. Priestley, and promptly ushered into the library of the College, which was filled with many objects of interest—too many, in fact, to be here noticed. Chief, of course, were the obstetrical instruments, a formidable and fearful array; though, to the casual visitor, the display of pictures and engravings was much more attractive. The band of the Grenadier Guards, under Mr. Dan Godfrey, added decidedly to the enjoyment of the evening, upon the success of which the Society and its officers are decidedly to be congratulated.

THE SEAMEN'S HOSPITAL, GREENWICH.

From the report of the Seamen's Hospital for 1875 we learn that during the year 2045 patients were admitted for treatment, 878 being medical and 1167 surgical cases. Of the former a large proportion were cases of rheumatism and of pulmonary disease, and of the surgical cases no less than 432 were cases of venereal disease. In the surgical wards there was a large diminution in the number of cases of pyæmia, which Mr. W. Johnson Smith, the senior resident medical officer, believes is due in a great measure to the adoption of Professor Lister's antiseptic system of treating wounds.

MEDICAL DEFENCE ASSOCIATION.

At a meeting of the Council of the Medical Defence Association on the 5th inst., the following gentlemen were unanimously elected members of the Association, viz.:—Dr. A. Carpenter, J.P., Croydon; Dr. Dudfield, Kensington; Dr. H. Cooper Rose, Hampstead; Dr. G. Hill, Earl's Court House; Dr. J. F. Plomley, Maidstone; Dr. H. Cooper, Hampstead; Mr. D. Havard, Newport; Dr. J. A. Campbell, Northampton; and Mr. F. B. Burton, West Brompton.

THE CLOTHWORKERS' COMPANY AND THE ROYAL MEDICAL COLLEGE, EPSOM.

The Clothworkers' Company, through Dr. Carr, have presented to the Medical College, Epsom, a free medical scholarship of £50 per annum, tenable for four years, and £50 to start life with on the scholar attaining the usual qualifications to practise medicine. The College already possesses four free medical scholarships of a similar value, which are especially reserved to the foundationers.

Primary Examinations.—The following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of Membership of the Royal College of Surgeons on the 5th inst., when eighty-seven candidates offered themselves, who were required to answer four, including one of the first two, viz.:—1. Describe the structure of the crystalline lens, and the changes which occur in it during accommodation. 2. State the average quantity and specific gravity of the urine. Enumerate its chief constituents, and the circumstances which affect their proportion. 3. Describe the os trapezium. 4. Describe the sterno-mastoid muscle. How is it supplied with bloodvessels and nerves? What parts come into view when it is reflected? 5. Having removed the stomach and intestines only from the abdomen, mention in order the parts seen on the posterior wall of the cavity. 6. Describe the dissection necessary to expose from above the third ventricle of the brain; and enumerate the parts which bound that cavity.

A DESCRIPTION AND EXPLANATION OF THE

METHOD OF PERFORMING POST-MORTEM EXAMINATIONS

IN THE DEAD-HOUSE OF THE BERLIN CHARITÉ HOSPITAL; WITH ESPECIAL REFERENCE TO MEDICO-LEGAL PRACTICE.

By PROFESSOR RUDOLPH VIRCHOW.(a)

(*Continued from page* 506.)

Case II.

A PERSON known. Gunshot wound of head (suicide). Death in twelve hours, or rather more, from œdema of the lungs. On examiuation post-mortem, the track of the wound found to be through the right hemisphere, and involving the extra-ventricular part of the corpus striatum. Extensive œdema and interstitial emphysema of the lung. Numerous manifestations of older affections; irregularly shaped cranium; unsymmetrically formed brain; contracted aorta; endocarditis mitralis; herpes zoster; chylification going on in the intestines.

B. W., aged twenty-one, a tradesman's assistant, had shot himself through the head with a pocket-pistol above the middle of the left eyebrow. Quite insensible when brought to the Charité at 6. a.m; breathing stertorous; pulse scarcely perceptible; urine passed involuntarily; loud tracheal râles; heart-sounds scarcely audible; no albumen or sugar in the urine; the left pupil larger than the right. From time to time a whitish greasy matter, mixed with blood, exudes from the small wound. At midday the pulse had somewhat risen; the respiration was still stertorous, though a little easier. In the afternoon the man's coudition rapidly changed for the worse, and he died at four o'clock.

Post-mortem examination (occupying two hours and three-quarters):—

A. *External Examination.*

1. Body generally well developed; appears to be that of a man of twenty years of age; height, 1·7 metre.

2. Anterior surface generally pale, but the left half of the face, the left ear, the adjacent part of the neck, the arms and forearms, and the thighs and legs much discoloured, and exhibiting large, bluish-red, irregularly shaped spots, of varying size, generally more marked on the left side; but on those parts of the back which have not been exposed to pressure the discoloration is uniform and of a deeper red. On pressing firmly with the finger the redness almost entirely disappears; on an incision being made, a few large drops of semi-fluid blood escape from the skin and subcutaneous tissue, but there are nowhere any permanent reddened patches, such as cannot be removed by water. There is one place on the left thigh, a hand's-breadth above the patella, where, on incision, we find a small spot extending through the adipose layer, and infiltrated with blood which cannot be pressed out. On the right shoulder-blade there are a few dry, brownish-red spots running obliquely from above, and externally in a direction downwards and inwards. These on section appear to be only thin, dry crusts involving the corium proper.

3. On turning the body over, a large quantity of yellowish-brown fluid, containing dark-brown particles, escapes from the mouth.

4. Rigor mortis marked in the extremities and in the muscles of the neck and abdomen.

5. Numerous greyish-brown spots—not to be removed by washing—on the anterior surface of the body, especially on the breast. On the left side, near the seventh, eighth, and ninth ribs, there is a broader zone of these spots; this is continued to the arm, where the patches are brownish, and covered with thick masses of epithelium. Other parts, also, of the surface of the body, especially the lower extremities, are covered with grey spots, completely removable by washing. Blackish marks on many parts of the face, neck, arms, and trunk: some of a larger size on the abdomen; these appear, on section, to extend no further than the cuticle.

6. A few pale-greenish faint spots on the abdomen and in the neighbourhood of the groins. Cadaveric odour not perceptible.

7. Hairs dark brown, on right side stained red; much matted together, and their roots covered with dry blood.

8. On the forehead, a finger's-breadth above the middle of the left eyebrow, a small hole three millimetres in diameter, surrounded by a dry, blackish-brown, somewhat depressed border of skin, one to two millimetres broad, around which externally and towards the left side the integument is slightly reddened, and the cuticle abraded. The parts surrounding the wound are slightly swollen. A long transverse incision carried down to the bones shows extensive separation of the connexions of the tendinous expansion and the subjacent connective tissue, extendiug in one spot to the periosteum, and corresponding with a hole in the bone. There is here a flat splintered piece of bone, triangular in shape, five millimetres long, four millimetres wide, retained in its place. The separation thus caused in the parts forms no regular cavity; the wound is traversed by numerous projecting filaments and cross-bands of tissue. For five centimetres around this the soft parts are infiltrated with blood, which cannot be pressed out. The tissues for some distance beyond this contain a watery fluid.

9. Eyelids open; corneæ firm and transparent.

10. Nostrils filled with a great quantity of dried blood, which also covers the adjacent parts of the skin.

11. Mouth slightly open at its middle. Lips somewhat red. The teeth closely shut.

12. No other foreign bodies discovered in the apertures of the head.

13. A pale streak on the neck, three millimetres broad, over the larynx, increasing towards the left side to a breadth of fifteen millimetres, and terminating here under the ear; neither a groove, nor injury of the surface, nor any change of colour to be perceived. There is nothing of the kind to be seen on the right side. The skin and subcutaneous tissue quite pale on section.

14. Thorax somewhat flat.

15. Abdomen somewhat retracted.

16. Penis small; much contracted; very little prepuce. The glans and what remains of the prepuce dark red and rather dried. The scrotum likewise small and much wrinkled; externally on both sides some appearance of blood. On incision the integuments of these parts dry superficially and very red.

17. Anus closed.

(*To be continued.*)

(a) From the *Charité-Annalen.*

PROPOSED MEMORIAL TO THE LATE CAMPBELL DE MORGAN, F.R.S.

A MEETING was held at the Middlesex Hospital on May 8, 1876, to consider the subject of a memorial to the late Senior Surgeon of the Hospital. Present:—A. H. Ross, Esq, Dr. Greenhow, Dr. Cayley, Mr. Hyde Hills, Dr. Hall Davis, Dr. Edis, Mr. Watson, Mr. Morris, Mr. Gregory Forbes, Mr. Sibley, Capt. Darley, Mr. Lawson, Dr. King, Mr. Clark.

On the motion of Dr. Greenhow, Mr. Ross took the chair.

Dr. Greenhow then stated that at a meeting of certain members of the staff of the Hospital, held on April 19, it was resolved—"That a committee be formed for the purpose of founding a memorial to the late Campbell de Morgan, Esq., in connexion with the Middlesex Hospital." Those present at this meeting formed themselves into a committee, and an invitation to join it was issued to several friends of the deceased.

The meeting now referred to was the first meeting of this general committee. The following resolutions were proposed and carried unanimously:—

"That, in testimony of the admiration and affection entertained for the late Campbell de Morgan, Esq., Senior Surgeon to the Middlesex Hospital, by his colleagues and pupils, by the Hospital authorities, and by a wide circle of professional and non-professional friends, some worthy memorial be founded to connect his name in perpetuity with the Hospital with which he remained identified during his whole professional career, and to the service of which he devoted his best energies during a period of forty years."

"That the money subscribed to the De Morgan testimonial be devoted to affording increased hospital accommodation by the building of a new wing for the treatment of special cases."

"That notices of the formation of this committee for the purpose of founding such a memorial be sent to other professional and non-professional friends of the late Mr. De

Morgan, inviting them to authorise the placing of their names on the committee and to co-operate in carrying out the work."

"That subscriptions for the purpose of the memorial be invited from all the gentlemen educated at the Hospital and from other friends."

"That Messrs. G. Lawson, B. King, M.D., and Augustus Chichester be the honorary secretaries; and that Messrs. E. H. Scott and R. Ruthven Pym be the honorary treasurers."

"That the executive committee consist of the following gentlemen:—Lord Josceline Percy, Captain Darley, Drs. Greenhow and Barclay, the Rev. B. Webb, Messrs. H. Mitchell Henry, M.P., A. H. Ross, Watson, Hills, Nunn, Forbes, Sibley, Hulke, Taylor, Oscar Clayton, Flower, and W. Hawes, with the treasurers and the secretaries."

FROM ABROAD.

Case of Extra-Uterine Pregnancy.

In the *Lyon Médical* for April 23, Dr. Chabot, Senior Physician to the Chambéry Hospital, gives the account of a remarkable case read to the Medical Society of that town.

While he was chief medical officer to the military hospital at Médéah, in Algeria, a woman, aged twenty-five, the wife of one of the natives, was brought in on November 13, 1874. She had been pregnant four times, all the deliveries having been easy. The last of these occurred six months previously; and about a month afterwards she perceived a tumour at the umbilical region, which, without giving her any pain, had in about the fifth month after her confinement reached the size of an ostrich egg. Then, symptoms analogous to those of labour were set up, and the tumour inflamed and ulcerated, a foot of a fœtus projecting from the aperture. The husband tied a string around this, and detached it by strong traction. No accident followed, but a fistulous aperture remained, which during three weeks gave issue to horribly fetid ichor, with, from time to time, fragments of bone and putrefying flesh. Paroxysms of fever, apparently due to septico-pyæmia, accompanied the discharge.

On her admission, the patient was very emaciated, excessively feeble and anæmic, the secretion of milk, however, continuing in tolerable abundance. The umbilical tumour resembled in size and shape the head of an adult, and gave issue, by a fistulous opening of about the size of a florin, to a discharge of a most insupportable stench. Examination proved that the uterus was entirely unconnected with the tumour. Gastrotomy was performed on the 14th under the influence of chloroform. The thickness of the walls of the abdomen and of the cyst amounted to from two to three centimetres, the peritoneal cavity not being opened. The hæmorrhage was inconsiderable, and the flaps of the T-form incision having been thrown back, a large number of bones, and parts of bones, of a fœtus at full time, together with masses of flesh and hair, were removed. After the cavity of the cyst had been cleared out, the intestines could be felt behind its not very thick posterior wall, which they projected forwards between the lips of the wound. The operation lasted thirty-five minutes, and, after detersive injections had been employed, two drainage-tubes and several balls of charpie soaked in permanganate of potash were placed in the wound, and the whole secured by compresses and bandage. The patient's recovery was somewhat retarded by febrile paroxysms, for which quinine was administered; but by November 30 she was able to sit up, the secretion of milk also having persisted. She was kept in the hospital until January 6, by which time her health was perfectly restored. She was last heard of eleven months after the operation, when she was quite well, cicatrisation having become complete a month after her discharge.

On examination of the fœtal bones, they were found to be at the full term, or even more ossified than is usual at that period. No tumour existed in the abdomen prior to the joint-pregnancy; so that it must be concluded that this was an example of twin pregnancy, consisting of an extra-uterine and an intra-uterine fœtus, both attaining the period of maturity.

The late M. Charrière.

The name of this distinguished Parisian instrument-maker is almost as well known to surgeons in England as in France, and we extract some passages of an address relating to his death delivered by Prof. Le Fort, at the Société de Chirurgie:—"Learned societies do not, in general, render public homage except to those who have formed part of them; but Science ought not to act ungratefully towards those who have rendered her direct, or even indirect, services. Called away by professional duties, I was unable to attend M. Charrière's funeral, which I all the more regretted, as, in the absence of more authorised persons, it would have become me, as Professor of Operative Surgery at the Faculty, to render homage to the memory of a man to whom operative medicine is so largely indebted. I should have liked to have shown the important part he has played in the progress of French surgery during near half a century, and which it would be unjust to leave unacknowledged; for, although with great modesty, he has always been of the greatest assistance to even our most celebrated surgeons. Without this skilful workman and ingenious mechanician, many of the operative procedures devised by these surgeons would have remained as mere theoretical projects incapable of realisation. Without him, perhaps, to cite only one example, the ideas and aspirations of Civiale, of Leroy d'Etiolles, and of many others, would have remained sterile, and lithotrity, that entirely French surgical conquest, would never have seen the light. Prior to M. Charrière there were but cutlers, and we may almost say that he has been the first modern maker of surgical instruments. His rivals had been for the most part his pupils, and as the head of an important branch of industry he has long rendered foreign nations the tributaries of France. I could have wished to reveal how often the manufacturer and man of commerce disappeared before the man devoted to the cause of surgical progress; and with what disinterestedness he devoted himself to the pursuit of trials that could not be attended with any pecuniary remuneration, as also with what liberality—having, as it were, formed a school among his successors and his rivals—he placed at the disposal of all the riches of his surgical arsenal. What I was prevented saying at his tomb I have thought myself justified in mentioning here, believing that this Society, as the President has just said, would wish to associate itself with this mark of respect for a man who during nearly fifty years was the assistant and modest and devoted *collaborateur* of almost every French surgeon."

St. Andrews' Graduates' Association.—The anniversary session will be held in the middle of June. The Council have invited the Very Rev. Principal Tulloch, D.D., and Principal Shairp, LL.D., of St. Andrews, to the dinner, when it is hoped that the members will muster in force to meet their distinguished guests.

Pathological Fractures.—Under this name, Prof. Broca designates what are improperly called "spontaneous" fractures, in which there is no proportion between the cause and effects produced, and whose production can only be explained by admitting a preceding diseased condition of the bones concerned. A boy, fourteen years of age, was recently in Prof. Broca's ward, who had been the subject of white swelling for twelve years. Two years since, he fractured the tibia at its upper third, no displacement being produced. In these fractures, in fact, the fragments usually remain *in situ;* and another circumstance which characterises them is the great difficulty with which their consolidation is effected. In this boy, after some months the fracture was supposed to be consolidated, but fourteen months after its first production it was again produced at the same part. There had been no external violence or traumatic cause to explain the occurrence, the child on both occasions having fractured the bone while walking in the room. The true cause of the fracture was the predisposition induced by a special pathological condition of the bone, which had become the seat of rarified osteitis, in which there simultaneously occur a "denutrition" of the osseous elements, and a great development of the vascular element. These osteites generally occur in young subjects suffering from white swelling, and principally affect bones situated below the tumour. In some cases, however, the osteitis occurs above this, an example of which was shown in a woman forty-five years of age, who, when sixteen years old, had a white swelling. She recently fell down and fractured the femur, without any displacement or riding of the fragments taking place, but with an immense effusion of blood, which greatly distended the thigh, and which was certainly furnished by the fragments of the femur affected with this form of osteitis, in which the rarified osseous tissue is very vascular—a frequent complication of these "pathological" fractures.—*Gaz. des Hôp.*, April 15.

REVIEWS.

Consumption: its Treatment by Climate; with special reference to the South African Health Resorts. By J. A. Ross, M.D. London: H. Renshaw. 1876. Pp. 70.

This little book may prove useful to invalids starting for, and especially to those proposing to settle in, the South African colonies. Details of the voyage and of the drive from the coast to the interior are pleasantly given. The author describes from personal experience a drive in a bullock-waggon, and shows that a month thus spent, travelling about twenty miles a day, and sleeping in the waggon at night, is often very beneficial to consumptive patients. He points out the fact that when good food is abundantly supplied, no need is felt for stimulants. In the neighbourhood of Bloemfontein, the capital of the Free State (elevation 5000 feet), the climate is warm and exhilarating; and here the Bishop is founding a sanatorium to be under the management of an English sisterhood, so that the want of nursing and home comforts will no longer be felt by the invalid. The country is treeless and uninteresting, but at Cradock (3000 feet elevation) the scenery is fine. A railway from Port Elizabeth is in progress, and there is a good hotel. The soil is sandy and porous, the air dry. The Trans Vaal is still higher, some of its towns being 6000 or 7000 feet above the sea-level. The weather is always dry and bracing in the winter, which is the most favourable season. The pamphlet contains meteorological tables, and comparative health statistics are introduced from the Army Blue-books.

On Stethometry. By Arthur Ransome, M.D., M.A. (Cantab.), Examiner in Anatomy and Physiology, and Pharmacology, in the University of Cambridge, 1868-1869; Lecturer on Public Health in the Owens College, Manchester. London: Macmillan and Co. 1876. Pp. 207.

In this volume Dr. Ransome professes to give an account of a new and more exact method of measuring and examining the chest, together with some of its results in physiology and practical medicine. In the field of thoracic stethometry Dr. Ransome has for some time been known as a persevering and enthusiastic worker; and the volume now before us is the result of extensive research, much labour, and patient observation.

In the diagnosis and prognosis of chest diseases, measurement, after a more or less accurate method, has always been adopted by careful observers; and the information thus gained as regards the advance or retrogression of fluid effusions, and the waxing or waning of intra-thoracic growths, is often most valuable. But the author of "Stethometry" is not satisfied to rest content with the results to be obtained by the use of the eye, the hand, the simple tape-measure, and the cyrtometer, but is sanguine enough to believe that the chest-rule, and three-plane stethometer, or some modification of them, will be called into requisition in the everyday study of disease—even if the thoracic callipers, the goniometer, and the two kinds of stethograph which he has devised, do not come into general use. The author has taken infinite pains to describe these ingenious instruments and their use; but we fear that his labours will not be appreciated by the profession to the extent that he anticipates. Medical men, as a rule, do not like to encumber themselves with complicated apparatus, and in general practice it is found that their use is not always pleasing to the patient or satisfactory to the physician. But although precise stethometry may continue to be pronounced impracticable by the majority of the profession, it is an interesting field of inquiry, and we shall be glad to hear that Dr. Ransome's observations have been supplemented by those of other investigators. Indeed, further and independent observation would appear to be absolutely necessary before the exact value of stethometry can be determined, for even Dr. Ransome himself is not at all clear as to the correctness of some of the conclusions at which he has arrived. Thus, after stating some of the fallacies which might mislead superficial observers in the use of the stethometer, he says, "Upon wider experience there may, perhaps, be found other sources of exception to the conclusions which I have ventured to draw from the limited number of cases so far examined. It is possible, also, that some of the peculiarities of motion which I have observed in phthisis may not be confirmed by others. The area of observation has undoubtedly been too small to afford a firm basis on which to erect a method of prognosis. But I submit that a case has at least been made out for further inquiry; and even if some of the conjectures here made should be contradicted by subsequent research, we may still confidently look to stethometry to furnish very valuable practical information not otherwise attainable." Again, after referring to Dr. Hutchinson's well-known observations on the movements of the chest-walls in respiration, which observations have been confirmed by Professor Humphry and others, Dr. Ransome states that in working with the stethometer his impression has been that the most usual form of breathing, at any rate in males, is the direct opposite of that mentioned by Dr. Hutchinson; but, with great modesty, he at the same time professes not to place his limited experience in opposition to opinions expressed by other able observers. Here, then, stethometry raises doubts as to the correctness of conclusions which have been commonly accepted, even if it does not upset them altogether. In time, perhaps, we may hope that the same agency will for ever set the question at rest.

It is impossible in a notice of this kind to give detailed descriptions of the various kinds of apparatus devised by Dr. Ransome, and their mode of use in chest-measurement. Neither can we give the results of his observations, which, we may say, certainly appear to indicate that stethometry is at least an aid to diagnosis. Before concluding this notice we would refer to one point in which we think the author's taste is at fault. We allude to the quotations which head each chapter, and which, though very excellent in themselves, and for the most part highly classical, seem somewhat out of place when occupying such prominent positions in a purely scientific work.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

(*From an Occasional Correspondent.*)

Paris, May 9.

The Old Hôtel-Dieu—The Professional Fee.

Paris has not seen the last of the Hôtel-Dieu yet, nor, according to all accounts, is she likely to do so very soon or with much advantage. The time has not yet come for judgment to be pronounced upon the old place; and, if it were, who would dare to pass the sentence? But I may assume that before long the new hospital will be finished; and I have thought some of your readers who may have pleasant memories of the old one may not altogether object to having them refreshed, while others may feel a certain, if sad, interest in the last days of the great institution. But it is no easy matter to write on a subject that is confessedly old. Who has not already seen or otherwise come to know the Hôtel-Dieu to his heart's content? Yet there is a certain amount of interest in learning that, after all the mighty revolutions that have taken place around it, the hospital is as much what it used to be as are the towers of Notre Dame. I am not aware that the three magic words which have graced its façade since the last great change of government have an influence that extends farther within it than they can be seen. The wards, the furniture, and the beds especially, are scrupulously clean; and, I am bound to say, the atmosphere is not unpleasant, except in some corners of the surgical wards. Yet, if there is nothing absolutely bad in the air, it must be said sadly to lack freshness. Every window is closed,—from obstinacy surely, not in ignorance?—while through them may be seen the brilliant green and white of the chestnuts, and, in these last days of wind, may be almost heard the sound of the refreshing breeze. An Englishman can hardly hold his hand when he finds himself in such a place; but even an open door draws exclamations of displeasure and distress from the professor. The sisters, and nurses, and (in the men's wards) male attendants are, of course, inasmuch as they are French, intelligent, clever, and attentive. It would puzzle some of your English readers to tell at first sight who is who, were he to join a professor and his class making "a visit." The professor, his *interne*, and the dressers, one and all, still wear the extensive and useful, if not very handsome, apron of white, which may be seen represented in the portraits of their immortal predecessors. Another feature that arrests the eye of the visitor, who may in a time of rest and idleness be inquisitive and curious rather than inquiring, is the sprinkling of the military medical students, with their characteristic French uniform; and, I may add, the presence,

and nothing more, of lady pupils—I have seen but three. Of the French medical students in general I forbear to speak at present; but the first impressions made by them are certainly in their favour. As for the treatment, from what is to be seen on "going round" at "a visit," it would be manifestly unfair to offer any general criticism of it, for there must be in Paris, as elsewhere, as many systems as there are members of the staff. Yet I need not hesitate to say that much considered out of date in our own country may be seen flourishing and fashionable here; and, probably, our country is none the better for its absence. I should like, for instance, to see as many of our out-patients sent away with scruple doses of ipecacuan to take every quarter of an hour, till their stomach is well emptied, as I daily see here. And perhaps we might return to the cupping-glass, and to the honest application of blisters, with some advantage. I will not say as much for the surgery I have seen, nor for the rather indelicate way in which women are examined in the lying-in wards. As for the trouble taken by the physicians, and the time spent over both the patients and the students, they are by no means little. The reward of all this, beyond personal satisfaction and a fair reputation, is even poorer here than in London.

Much has been written in the *Medical Times and Gazette* on fees, but the smallest fee that your consulting-physician will receive is said to be several times the size of the average remuneration in Paris of a man in a corresponding position. But, if I am not mistaken, a feeling is beginning to gather among its members here that in this all-important respect the status of the profession must be raised. Of course it is difficult to get the older men to move in the matter, and it is said that the initiative has been taken by a few young men of promise, who have the courage to ask either a respectable fee or to go without one altogether. I am sure you will wish them every success, remembering as you do that hospital appointments here can be obtained only after severe examinations and many laborious years of service, and that they are seldom bestowed until the man has reached an age that would be considered advanced in England.

The new Hôtel-Dieu has, I doubt not, been sufficiently abused in your columns as well as elsewhere. I will say nothing about it in this letter therefore; and, indeed, one can still see it only from the streets.

We are rejoicing here in a cloudless sky and a pleasant cool wind from the north-east; and Paris is wearing her spring dress of refreshing green.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 25.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

On a Case of Intermitting Hydronephrosis, with some remarks on Hydronephrosis as a Cause of Abdominal Tumours.

Mr. Henry Morris read a paper on the above subject. Since its introduction by Rayer in 1841, the name "hydronephrosis" has been used to signify distension of the pelvis of the kidney, or pelvis and ureter, by retained urine. The term "intermitting hydronephrosis" is here employed to express in a clinical sense an intermitting abdominal tumour due to the occasional accumulation and subsequent escape of urine in the pelvis of the kidney, or in the ureter and pelvis of kidney. It is not intended to refer to the pathological condition as seen in the post-mortem room only. A case is then described of a woman aged sixty-six, who for several years had suffered from a villous cancer of the bladder, and who, towards the end of her illness, had an intermitting tumour, sometimes the size of the head of a small fœtus in the right hypochondriac and lumbar regions. This tumour, which was sometimes very evident, was at other times quite undiscoverable. Its presence was associated with pain, vomiting, and constipation; and it arose from the distension of the pelvis of a hypertrophied kidney from obstruction at the vesical end of the ureter. The case was, briefly, one of double hydronephrosis, with an evident abdominal tumour on one side, caused by the presence of villous disease of the bladder. It is believed to be the only instance in which the one condition was the result of the other, for although another case has been recorded by Rayer in which the two pathological states co-existed, yet in that case the hydronephrosis was caused by a calculus at the lower end of one ureter. Some explanation is then given for the occurrence of an abdominal tumour in some cases of hydronephrosis and not in others, and it is suggested that in those cases, on the one hand, where a tumour is formed it will always be found that the obstruction has been both sudden and complete to the flow of urine from a kidney in its full functions; or else that after one kidney has been damaged by disease, and the other has undergone compensatory hypertrophy, some obstacle has arisen to the flow of urine from the hypertrophied organ. Instances of the first kind arise from the impaction of a calculus in the ureter; the case reported by the author is one of the second kind. On the other hand, where the obstruction is slight at first, and only gradually increases, there is a continual resistance rather than an actual impediment to the flow of urine, so that the secreting structure becomes destroyed *pari passu* with the distension of the pelvis of the kidney, and death occurs before the dilatation is sufficient to cause a tumour. In stricture of the urethra and in most cases of uterine disease (the most frequent causes of hydronephrosis) this resistance is opposed to both kidneys, and they each suffer, but cannot share, the results of the obstruction. Thus, although, as Howship said, there is less chance of detecting hydronephrosis in cancer of the uterus during life if the affection be confined to one side, the converse is true only when the obstruction has been confined to one side for a time and afterwards affects the other. Facts show that it is not true when both kidneys have been acted on similarly and for the same length of time. With regard to the treatment of hydronephrotic tumours, the importance of relieving pressure from retained fæces by the use of purgatives and enemata is just referred to, the successful practice in two or three cases of manipulation is pointed out, and then the question as to the best site for puncturing, when an operation is required, is considered. The conclusion arrived at is that when the tumour is of the left kidney the anterior extremity of the last intercostal space of that side is as good a spot as can be chosen; but that when the tumour is of the right kidney there is the almost certain danger of wounding the liver if the corresponding position is selected, and that the best place for puncturing on this side is half-way between the last rib and the crest of the ilium, from two inches to two inches and a half behind the anterior superior spine of the ilium. This spot is on a level with the front surface of the bodies of the lumbar vertebræ, and it may with safety be conjectured that when a tumour requiring to be tapped is present, a trocar inserted here, and directed inwards and somewhat forwards, will pass behind the peritoneum and colon in front of the kidney and below the liver, and will penetrate the cyst at its anterior and lower part. The rarity of intermitting hydronephrosis is then shown by a reference to an appendix of all the published cases found by the author in which hydronephrosis had caused an abdominal tumour. Frequent as hydronephrosis as a pathological condition is, there are comparatively few cases in which a tumour has been detected during life, and still rarer is it for such a tumour to intermit or disappear altogether. Six cases are referred to briefly in which complete subsidence occurred, and seven others are described in abstract in which the tumour intermitted. Cases of unquestionable pyonephrosis are excluded from the appendix. In conclusion, it is suggested that in all probability the greater number of the tumours which, having been called "ovarian" upon good authority, have nevertheless spontaneously vanished, have been hydronephrotic in nature, and disappeared by a normal process through a normal outlet of the body.

Mr. Spencer Wells thought it almost unnecessary to make a distinction between hydronephrosis and pyonephrosis, inasmuch as the former usually ends in the latter, and the symptoms are generally the same. It was an important matter to determine where the puncture should be made. In his own case there was only a very limited spot where it could be made with safety. In every case one had to be guided by circumstances; his own patient had done perfectly well. Drainage was kept up for a time, till the calculi had passed into the bladder, when the opening spontaneously closed. In Dr. Cooper Rose's case, the spot for safe puncture was also limited. He doubted the conclusion that ovarian cysts reported to have disappeared were all cases of hydronephrosis;

in point of fact, they often open into the peritoneum, and a cure follows.

Mr. T. Smith thought intermittent collections of fluid in the kidney were not so very rare. As to the spot for puncturing, the last intercostal space had been mentioned as the best; but here the diaphragm was likely to be transfixed. It was a question whether the fluid should be drawn off and the opening closed, or drained away. In two cases he had used drainage: in one, dilatation of the opening was necessary; this was followed by rigors and death. In another, the opening was allowed to close, and the patient did well.

Dr. Hare had seen three cases. One was a woman who had a tumour on the right side. By-and-by this began to diminish, and one to appear on the left side. No pus was ever formed. At the post-mortem examination the first tumour was found on the right side, but the left kidney was quite flaccid. There was no calculus, but a twist of the ureter like the letter S. In handling the right kidney this was made straight, and the fluid escaped. His second case was that of a young woman who had a tumour on the right side, which came and went from time to time; she was still alive. The third was also a female with a tumour of the right side. He applied continuous pressure, and it did not return.

Mr. Morris thought it well to distinguish hydronephrosis from pyonephrosis, the latter being more common and produced by other causes. Hydronephrosis might exist for years without any pyonephrosis. As to the point for puncture, one had to be ruled by circumstances, but it was best to go as far back as possible. The point referred to was on a level with the eleventh interspace, not in it.

Apparatus for producing Local Anæsthesia.

Mr. William Donald Napier exhibited an instrument intended for producing local anæsthesia, to be used in such operations as the removal of hæmorrhoids, the treatment of fistulæ, and particularly in many in dental surgery. It consists of two parts: the first a metal ball of the size of an egg, which contains ether, the vapour of which escapes by the simple warmth of the hand, through tubes so arranged that the internal one transmits a current of air, and the external one the ether vapour. At the termination of the tubes a surface of lint or felt is adapted in such a way that the ether vapour becomes frozen upon it, thus producing a very cold body, which may be applied to the parts about to be operated on. The second part of the instrument is a foot-bellows, with large reservoir, made of the best red indiarubber. The quantity of ether required to keep the piece of lint quite frozen is small as compared with that used in the usual vaporisers, and the inhalation of ether vapour, which in operations in dental surgery is injurious to the patient, is avoided. The foot-bellows Mr. Napier showed might be used with advantage in all instances where the hand-ball was now employed; and on account of the size and elasticity of the reservoir, equality and continuity were obtained in the current of air with very little fatigue indeed.

ASSOCIATION OF SURGEONS PRACTISING DENTAL SURGERY.

Wednesday, April 26.

S. Cartwright, F.R.C.S., in the Chair.

This Association held a very successful inaugural meeting at the Rooms of the Medical Society, on Wednesday last. A large number of well-known medical men were present, and the proceedings were of a very interesting character.

The Chairman delivered an able introductory address, in which he insisted upon the necessity of a thorough medical education for those who practised dental surgery; showing how, when that specialty was undertaken by medically educated men, there were many means of curing diseases, general and local, quite apart from mere mechanical means. Having, towards the close of the address, expressed a hope that the formation of the Association would be productive of great benefit to the profession, and further intimating his surprise at its having encountered any opposition, he added, in conclusion, that he thought it would be advisable for its Fellows to take under their consideration the subject of the dental advertisements which, appearing in the leading daily journals, so terribly mislead the public and disgrace the profession.

Mr. Cattlin: The applause with which our Chairman has been greeted makes it almost unnecessary that I should propose the vote of thanks which is usually adopted on these occasions. I have had the pleasure of knowing Mr. Cartwright for upwards of forty years. We were students together at the same hospital; and since then, at every movement which has taken place for the benefit of the branch of surgery which he practises there, he has been giving his time and money, as he is now, to promote the interests of his own profession. At the formation of the Odontological Society he was foremost among the promoters; at the foundation of the Dental Hospital he was there, doing as he is now; and, therefore, he is acting with perfect consistency when he says that he and all of us who take an interest in this Association are merely anxious to promote the general and professional knowledge of those who practise dental surgery, and by that means to increase their status in society, and to make them have more the feelings of gentlemen than has hitherto been the case. As to the rivalry and jealousy which this new Association seems to have caused, I cannot help feeling a great deal of surprise at what I have heard to-night. To extend knowledge, or to do anything to promote the good of the profession, surely ought not to excite jealousy. There is no one in this room who has not, I dare say, in some way or other, seen the advantage of a good knowledge of medicine and surgery in the treatment of any special case,—I care not whether in the treatment of the eye, the ear, of cancer, or any of those things which are becoming, I am afraid, too general as specialities. But in every cases we must have seen instances where want of medical and surgical knowledge has been a great injury to the patient, and where the possession of it has been a great benefit. I remember two particular cases which would illustrate the necessity for thorough surgical education. A poor woman applied at a dispensary with a slight appearance of tumour on the gum. The dentist, who was a surgeon, at once detected the real nature of the disease, and referred the case to Mr. Paget for his opinion on the subject. He said it looked exceedingly suspicious, and took the patient into Bartholomew's Hospital. She was watched for a time. The growth increased, and was seen to proceed from the antrum; the upper jaw was removed, and the patient's life saved. The contrary effect took place from the ignorance of a dentist, who was not a surgeon. A patient came, and it was found that a very innocent growth in its way if properly removed at first appeared in the lower jaw. The dentist who had it under his care did not detect the nature of the disease, but went on treating it for what he called scurvy of the gum. The disease increased, ran along both jaws, and ultimately killed the patient by suffocation. This, and many other reasons, show the necessity for a good general, medical, and surgical education. I must say it seems somewhat of a slur upon our noble institution, the College of Surgeons, that they should in the nineteenth century give any diploma without ascertaining that the recipient has received a fair general education. I do not say that anything should be done suddenly. It was not done suddenly in the case of the College of Surgeons; but we have suggested many years ago that there should be a voluntary examination for the diploma of Dental Surgery lasting one or two years, whatever may be determined, and then it should be made compulsory. I am sure we must all feel very much obliged to Mr. Cartwright, occupied as his time is, for taking so much pains to do everything that can be done to increase the status of the profession.

Mr. Hilton: Although it has not at all fallen to my lot to be associated with your special portion of our profession, yet I am sure it gives me very great pleasure to be here to-night; and to recognise the tendency of your section of our profession to improve the basis of their knowledge. And undoubtedly it is impossible for a man to be in practice more than a very short time without recognising the value of the principle that the principal parts of the body seem to be associated with the very remote parts. It is impossible to look at the teeth and the gums without recognising that they are sometimes the starting point of bodily disease, which may lead to a bad issue. I must say, Mr. President, it grieves me to find that there should be so much contention in your section of the profession. I cannot understand why any person seeing that a small portion of your profession are trying to improve its status, should object in the manner of which we have heard to-night. It has been observed that the College of Surgeons

has been at fault. Now, I have had the honour of being mixed up with the College of Surgeons for a great many years; and I have taken a very large interest in it, and have devoted a great deal of time to its proceedings. And although I am not now speaking on behalf of the Council, I take upon myself to say that if the College of Surgeons could have pointed out to them, by those who are practically acquainted with them, the necessities of your section of the profession, they would be highly delighted to be able to improve the examination in which you, sir, have for so many years taken an individual and important part. On the other hand, it must be borne in mind that the blame does not rest with them. I think the blame rather rests with you, and others who are now placing yourselves at the top of your section of the profession, that you have not previously pointed out to the College of Surgeons the necessity which there is, and which I think would be generally recognised, for some improvement in the way suggested, that any dentist who wished to be called a dental surgeon should be a surgeon first and a dentist afterwards. I am quite sure you would find the College of Surgeons as active as you could be in their good wishes. I say it grieves me very much that there should be anything like dissension or difference of opinion upon a matter in which there should be common consent. I believe that anything which can tend to improve your section of the profession, or as emanating from the broad basis of the College of Surgeons, ought to be highly appreciated, and for that reason alone I think we are deeply indebted to you for the step you have now taken.

The resolution was unanimously agreed to.

Mr. Napier being called upon by the Chairman to open a discussion upon "The Manifestations of Syphilis in the Teeth," then read the following short address:—Mr. Chairman and Gentlemen,—When it was decided by the Committee of this Association that on the occasion of this, its inaugural meeting, a discussion should take the place of the formally drawn up treatise that more ordinarily follows the chairman's address, I ventured to suggest a subject for debate that I believed would be found to be of general interest, the very diversity of opinion that is known to exist regarding it exciting a natural, and, I think, laudable desire that it should, as suitable occasions offer, be carefully and accurately investigated. But I must frankly admit that when I volunteered my assistance in proposing a subject, it did not for a moment occur to me that I could by any remote possibility be called upon to further the proposal by myself introducing it to this meeting, knowing that there were those present far better qualified than myself to open the discussion, upon whom I should have been glad that the lot had fallen, believing, as I still do, that they would have been found to be as ready as I knew they were well fitted to undertake the office. But it is, perhaps, of small moment from whom the few introductory remarks (for they are nothing more) that it is now my duty to offer may emanate, the object of all that I shall say being to elicit as much information as possible from those assembled here upon the subject that it has been agreed we shall offer for discussion—viz., "The Condition of the Teeth commonly known as Syphilitic." And although it is undoubtedly for the special advantage of this newly formed Society that I earnestly beg the free expression of your opinions, the results of your personal observations, and your unreserved testimony to the truth or the unsoundness of any of the various propositions that may be brought forward; yet I cannot deny myself the pleasure of hoping that others besides those who have made the treatment of the teeth the object of their special study, may not regret the devotion of an evening to the pursuit of an inquiry that has been raised with a view to the better elucidation of a subject that, from its admitted obscurity, offers points of interest to the pathologist from whichever side the course of his studies and the bent of his previous researches may lead him to regard it. Now, sir, as I have stated plainly (and somewhat boldly) the desire of the Society for which I have the honour to speak, for extending as widely as possible its opportunities of acquiring scientific knowledge, and as I readily own my own position to be that of one who desires to obtain rather than to impart instruction, I may perhaps be forgiven for arranging the matter of my topic in an interrogatory form, which I will do as concisely as possible, merely stating afterwards the conclusions that my own experience has led me to form. The primary question that the consideration of this subject has led me to propound is—Can inherited syphilis be diagnosed with absolute certainty from any peculiar condition of the teeth? And, leading from this, I would further ask whether one or other or a combination of the following causes may not produce that which is supposed by some to be attributable to syphilis only:—Struma; the administration of mercurial medicines in infancy or childhood; severe illness during the first or second dentition; deficiency in nutrition, such as (more obviously) induces rickets. From the form in which I have arranged this short disquisition, it will be inferred that I do not myself look upon the position of those who hold certain conditions of the teeth to be conclusive evidence of syphilitic disease as fully proved; and I acknowledge, with all deference to those whose opportunities and capabilities of forming an opinion are as good, or even better than my own, that I do consider that the special theory upon which they base their belief is insufficiently borne out by facts. As I take it, the existence of a semilunar notch upon the two upper central incisors is held to afford incontestable proof of syphilitic taint in the person who exhibits it. An eminent pathologist, Mr. Jonathan Hutchinson, whom I am glad to see present amongst us, has done much towards bringing together valuable proofs of what he holds to be the direct influence of hereditary syphilis as thus presented; and all who are interested in the object of this evening's discussion must be grateful to him for the conscientious and well-directed labour that he has bestowed upon the subject that he has so skilfully treated. But, whilst I acknowledge the worth and the force of his evidence, I incline to hesitate before accepting it as positive—admitting of no other inference being deduced from it than that which he has been led to form. My reasons for this hesitation are, as simply and as concisely as I can state them, very much these:—First, because the number of those whose teeth are affected in the manner described appears to bear no relative proportion whatever to that of the recognised victims of syphilitic disease. Briefly, hereditary syphilis is but too common; semilunar marks in the teeth are exceedingly rare. Secondly, because the teeth of the first dentition are, I believe, never affected in the manner indicated—a point of some importance when it is remembered how early in infantile life other results of descended syphilis assert themselves. And, lastly, I must own to a growing inclination to look with jealousy upon the decisive acceptance of any theory that has not been submitted to the most minute and careful examination, and that has successfully stood the test imposed by as broad a circulation as can possibly be obtained for it, fearing greatly lest the too ready admission of the irrefragability of any chain of evidence, however it may attract us by its apparent incapability of refutation, may tend to narrow the circle within which some great truth appears to be included, and so insensibly lead us to relax our efforts to increase the measure of our acquaintance with a subject, the evidences relating to which we are apt, under these circumstances, to persuade ourselves have been already exhausted. As I have in the course of these very imperfect remarks so strongly advocated the advantages to be derived from the free dissemination of individual opinions, I shall hardly lay myself open to the accusation of a desire to set a limit to the bounds of this discussion if I here suggest that evidence bearing upon the apparent effects of struma, mercurial medicines, defective nutrition, or the various forms of infantile or other disease contracted during the periods of dentition, would be, to my mind, at this time especially valuable, if only as an assistance to us in marking the points of resemblance, or of distinct dissimilarity, that they present when placed in comparison with those physical conditions that are supposed to derive their origin from hereditary syphilis, and from that alone. It is by such means only that we can, I believe, hope to reduce the difficulties with which we are encompassed, and which must always surround every attempt to obtain clear and definite proofs of the truth and value of any given data; and I have full confidence in the ability and willingness of many of those present to render us important service in this particular.

Dr. Drysdale: I am quite sure, in an assembly of gentlemen connected with dentistry, it is almost an act of boldness on my part to speak upon such a subject as that of the teeth, especially as I see beside me the great author of the observations upon that branch of the subject which has been brought forward. Nevertheless, as witnesses are required sometimes in the cause of truth, I have taken the liberty of bringing forward my small observations on the subject which is before us this evening. I cannot understand how a gentleman like Mr. Napier, who must be so thoroughly conversant with teeth, should have failed to have noticed the

difference between the teeth mentioned by Mr. Hutchinson. For the last twelve or fourteen years I must confess it has come to me to be an article of such faith—the matter of these teeth being pathognomonic of syphilis—that whenever I see patients with these notched teeth I am immediately certain that they have had a syphilitic infancy. That is to say, the patient has suffered at the age of some two or three months from rashes, or some form of syphilis. At first I was always inclined to get the mother to come and relate her experience. I did that so frequently and constantly that I am perfectly convinced now, without seeing the mother or any of the relatives, that, these teeth being present, the patient has had syphilis in infancy. I believe it is impossible that the child can have these teeth unless it has suffered in its infancy from the disease. This is a very important point, because I believe it is only in England that the subject has been thoroughly investigated. On the Continent at the present moment, and undoubtedly in Paris, there is great want of knowledge on this matter. Had Mr. Napier read at Paris the paper that he has read here this evening, he would have met with very great agreement, for the people there would have said that there was no distinction between strumous teeth and syphilitic teeth. The best French writers have failed to see it; and yet when I was in Paris I met with cases, both in the hospital and in the streets, where persons exhibited the very marks of corneitis. It does not, therefore, arise from the fact of there being no such teeth in Paris, and I believe they are seen chiefly by those who attend to diseases of the eye. I believe Mr. Hutchinson must have made his collection of cases from attending at Moorfields Hospital; and having for a long time attended that hospital myself, I have frequently been surprised at seeing that form of teeth. With it you see marks of corneitis. You find the patients are probably very pallid, the nose sunk, and the patient often deaf. When you get the parent to give you the history, you find the mother has had first of all dead children, and afterwards has had healthy children, but that at the time the child in question was born the mother was passing through the secondary period. The subject seems so clear that there is no possibility of doubt, and it amazes me to find gentlemen of such experience as the great dental surgeons of London doubting it for an instant. The only reason is that they do not see the corneitis that Mr. Hutchinson has described, and which is chiefly seen in large hospitals for the eye.

Mr. Francis Mason: I may, perhaps, be permitted to make one or two observations upon this interesting paper. In discussing the question, the first point is to be quite sure what we mean by the word "syphilis." I take syphilis to be a disease that infects the system—not a local disease. I am inclined to agree with Mr. Napier that it is very difficult indeed to be quite certain as to the condition of these teeth, and I think we ought to make out the history more completely. Dr. Drysdale said he inquired of the parents in cases of children showing this peculiarity, and that after a few examples he was so satisfied that he did not ask any questions in subsequent cases, but assumed that the disease necessarily existed. I do not think that is a fair conclusion to come to at all. I have frequently made inquiries as to the so-called syphilitic teeth. I have tried to get histories of syphilis, and I cannot on this point put my finger upon one single case in which the history has been perfectly distinct. It does not satisfy me to say that this person has got it or must have had it. Let me have a distinct history from beginning to end, and then, perhaps, I may be satisfied. Further, I have had very nearly fifteen years of hospital practice, and I cannot put my finger upon a single patient who has been under my care with an infecting sore who has had spots on him afterwards, and who has ever come back to me with ulceration of the palate, with exfoliation of bone, or even with ulcers on any part of the body. I make these observations with very great deference, and with almost a certainty of some one getting up immediately to refute my statements; but I can only speak as I feel from personal practical experience, and I give them for what they are worth.

Mr. Alfred Coleman: It was my very great good fortune to be a colleague of Mr. Hutchinson at the time he first noticed these peculiarities in the teeth, and my still greater fortune to see a very large number of the early cases that came before him. My first impression was that I was familiar with that form of teeth, and I fancied that I could call to mind that I had seen it among my own private patients. However, upon seeing these patients, on more careful investigation I found that I was in error, and my experience certainly has been that that form of teeth is almost invariably associated with patients who have inherited syphilis from one or other parent—I say almost invariably, because there have been one or two exceptions. Such cases, for instance, as occur in comparatively healthy families, where the older children possess no symptom of the disease at all, and where, perhaps, the third or fourth child presents these typical teeth; more especially the two central incisors in the upper jaw, the four rounded incisors of the lower jaw, and the first molars, showing the indication Mr. Hutchinson has so accurately pointed out. And yet the children following these present no such indications whatever. It would be quite possible to admit that the child had inherited the disease at that time; but still it would be difficult to imagine that it should not, more or less, have affected children born afterwards. But still I am convinced there is so much truth in the theory, that the more you see these cases the more you will be convinced of the correctness of Mr. Hutchinson's views; and you will lay it down that, if you cannot for a certainty say that the person having these teeth has inherited syphilis, you may certainly assure yourselves that there is the very greatest probability that they have, and therefore it is a most valuable diagnostic sign.

Mr. S. Hamilton Cartwright: Sir, I am very sorry indeed that I also have to enter the lists, to a certain extent, as an antagonist to Mr. Napier, after the temperate and clever way in which he introduced this discussion. I have no doubt that mercurial and stomatitic teeth have very frequently indeed been mistaken for syphilitic teeth, but from a somewhat large hospital experience everything has led me to believe that one of the truest tests which you can have of syphilis in the child is the indication which you see in the permanent teeth. Mr. Napier laid some stress upon the fact that the temporary teeth were not affected. Now, I think that that is the very thing which we should expect. We must recollect that their calcification commences in utero, and that this is a time when specific inflammations do not occur. With regard to the second teeth it is different; they are calcified at a much later period, the incisors and canines at about eight or nine months after birth, the bicuspids at about two years, the second molars at from five to six years, and the third molars later still. Syphilis, I am inclined to think, is an exanthematous disease, running a definite course like other exanthemata—the superficial structures, the skin and mucous membrane, being particularly liable to be affected. Now, the fact that the teeth are developed from the oral integument goes far to explain their abnormal formation, for, like the hair and nails, they are mere appendages of the dermal system. The hair is formed by a downgrowth of the Malpighian layer of the epidermis into the corium; and, in like manner, the teeth are formed by an involution of the Malpighian layer of the oral mucous membrane into the submucous tissue, this being differentiated into a sac lined with squamous epithelium. Inasmuch as the superficial structures are most affected in secondary syphilis, is it not possible, nay, probable, that the specific poison—Mr. Hutchinson would term it syphilitic yeast—which we may assume to be lying latent in them during intra-uterine life should develope itself in organs formed from such structures at a later epoch in existence? The point which more especially makes me adopt Mr. Hutchinson's theory as to the specific character of these teeth is the constant symmetry which is to be found in those *typically* notched. You may see teeth assuming a somewhat similar appearance as the results of rickets, stomatitis, or the administration of mercury; but the truly syphilitic teeth are always symmetrical. If the lateral incisor on one side has the peculiar lunated notch, the one on the other side has it also. It has been remarked that the bicuspids and other teeth are not often affected; but this is easily explained inasmuch as they are calcified at periods when there is not such a tendency to stomatitic eruptions, or when the poison may have been eradicated from the child's system. Mr. Napier has mentioned mercury as a cause of these abnormally formed organs, but I do not see any reason for assuming that mercurial teeth differ from other stomatitic forms, for I have seen as many so termed "mercurial teeth" in Germany as I have in England, whilst in the former country mercury is but very rarely given, and only in the smallest doses. Mercury affects the mucous membrane, and I believe the teeth are only affected by it as they would be by ordinary stomatitis. The symmetry which exists in the appearance of that malformation characteristic of syphilitic teeth convinces me that they owe their origin to

other influences than that of mere stomatitic inflammation; whilst it also constitutes a proof that inherited syphilis in the child is of the secondary stage, and is by no means, as some have supposed, an example of mere heredity.

Dr. Drysdale: Did you see many syphilitic teeth in Germany?

Mr. Cartwright: I was not looking out for them particularly at the time, but I recollect seeiug many of those peculiar forms of teeth which have been ascribed to the action of mercury.

Mr. Risdon: As no one rises to speak, I will venture to make a few remarks with regard to the diseases which have just been alluded to. I think we may take it that this discussion shows the absolute necessity for a society of this sort, for evidently, however we may all wish to arrive at the truth, we have differences of opinion, and it is only by a free and friendly discussion that we are likely to arrive at the truth, which we trust will be beneficial to our fellow-creatures. I myself meet with a great many children, being connected with a children's hospital, aud I must honestly state that I am very much in doubt whether all these diseases that have been written down as attributable to syphilis do *bonâ fide* rise from that disease. I think Mr. Coleman alluded to the children, sometimes to the third and fourth children, having disease commonly attributable to syphilis. I have met with many iustances where perhaps the second, third, or fourth child may have had it, and yet the other children have been perfectly healthy. I am inclined to think when syphilis once gets into the system, it is not to be eradicated in a short period, and I think some diseases which have been put down for syphilis must arise from other causes. I am not at all prepared to say what it is. I should rather give a broad term by saying it is want of tone of the system, and arising from a tendency to what I may term some strumous disease. Sometimes I fancy I can attribute it to scarlet fever—whether the scarlet fever has been treated with mercury I do not know—or even to severe congestion of the lungs. But I feel confideut many of these diseases which are put down as syphilis really do not arise from it at all. I have sometimes seen cases of private friends in which, if I were to take the *ipse dixit* of some of the professional gentlemen, I should have to say such and such marks arise from syphilis. I say I am at a loss how to account for cases amongst my own private relations and connexions, where, perhaps, the third or fourth child is born with strcng symptoms of so-called syphilitic disease, and yet I have seen younger branches of the family perfectly healthy, and those preceding them in the same state. This is a question very difficult to follow out, at least I find it so, because in large places like London we are uot able to follow the children year after year as we should like to do. If you are living in the country, you know the history of the whole family to the father and grandfather, and you see the children grow up and can watch them, but in London there is very great difficulty in doing so. I sincerely trust that the discussion that may follow in this Society will be highly beneficial to the profession in every respect.

Dr. Billing: I should like to say a word, as I am not a member of this Association, and am not likely to be at the next meeting. There are doubtless difficulties attaching to the organisation of a new society such as yours; and I would warn you of them. They are certainly not diminished by your desire to limit it exclusively to men of education and competence; for you will meet with much opposition from those less liberally educated. There have been in the profession medical men from a very early period who have treated it scientifically; and so far back as the year 1807 an intimate of mine, who was a Doctor of Medicine of Edinburgh, a Dr. Blake, wrote an excellent work upon the subject of dentistry. I mention this to show that I take an interest in your branch of the profession, and more especially in this Association, though it is plain to me that the educated men of this Association will find it difficult to make their less educated brethren adopt their high and liberal views.

Mr. Jonathan Hutchinson: I rise, sir, to state my more recent experience on this subject. That will really be the best way in which I can put it, for I have but little to add to the observations which have fallen from your secretaries. They have pretty much explained all that I have to state. I may first say I am very much disappointed in not secing casts on the table. I thought in a society of dentists I should be met with facts, and I quite expected that Mr. Donald Napier would produce either a series of cases or a number of casts showing the reason why he disbelieved in syphilitic teeth. I may say at once that the best way of arriving at the truth in this matter would be to offer a sort of friendly challenge to the surgeons practising dentistry who compose this Society that they shall produce at the Society patients or casts illustrating their exceptional cases. I am quite content with a good drawing or a good cast, and I will give my opinion as to the teeth, and I think we should very soon arrive at unanimity. I am quite sure we never shall whilst wc continue simply to talk about it. We must have the facts before us. I could very easily bring patieuts down here illustrating the occurrence of these syphilitic teeth in which we can get the history of syphilis; but of coursc it is the exceptional cases that we want. I do not meet with those. Mr. Napier may, but I do not, and so I must throw myself upon him for the production of that class of facts. I know it is not fair to expect gentlemen in your profession to produce their patients. Your patients are of a different class to ours, but I think the casts would be quite sufficient for me if the teeth arc typical. I say again I do not in the least wonder that there should be a degree of scepticism upon this subject in all branches of the medical profession, except in that in which the eye is concerned, because it is only in connexion with eye practice that we meet with the facts which convince us upon this point; and I do not wonder in the least that anyone practising the profession of dentistry should feel it to be an almost absurd statement that one little malformation like this—a malformation affecting only a single pair of teeth—should be invariably associated with syphilis. It is such a very improbable thing that we cannot wonder at any amount of scepticism. I quite admire the scepticism. I feel, if I were placed in similar circumstances, I should certainly question it; but it is because I have had a large class of facts under observation that I have come to entertain strongly the conviction that the symptom is reliable. I think we must be very precise as to the symptom. I am quite aware that since I first described these teeth, partly perhaps from want of accuracy in the description, and partly because the subject is very intricate and requires close attention, very mistaken views have been abroad in the profession. I demonstrated at another society, some time since, teeth which I considered typical of stomatitis and usually of mercurial stomatitis, and I was astonished at the number of my friends, of considerable experience, who came and looked at my patients and said, "These are syphilitic teeth." I said, "No; syphilitic teeth are totally different: these indicate mercury." Therefore I ask you to be kind enough to pay the closest possible attention to the details of the description, and to get clearly into your minds what are the characteristics which one relies upon as indicative of syphilis; and I wish to assert as strongly as possible my opinion that they are quite distinct from all ordinary forms of malformation. These syphilitic teeth are not very common, and they are very different from the others. I must say my conviction is as it was some twelve or fifteen years ago, when I first described them, that if one gets a pair of typical central upper incisors—for they are the test teeth—marked in this way I should feel perfectly certain that that patient was syphilitic. I admit that there are in syphilitic patients, and in non-syphilitic patients, a great many teeth which are not characteristic. I look every day into mouths with the view of estimating this question, and am obliged occasionally to say, "No, we must leave this in doubt. These teeth are not characteristic; they help us a little, they may create suspicion, but we cannot give any positive opinion." But, on the other hand, I do see many teeth by which I can swear. I can say, "These teeth certainly indicate that the patient has had inherited syphilis," and I never met with a pair of teeth looking exactly like this diagram, in which I do not get other facts corroborative of the suspicion. When I first described these teeth I figured also a number of other defects and peculiarities, but the central incisors were the principal ones. I also mentioned peculiarities in other teeth, and I think I somewhat confused the subject in doing so. No doubt the other teeth are very often malformed, but the malformations of them are not of a kind that can be easily described. They cannot be easily separated from those due to other causes, and therefore it is very much better in testing the question of syphilis to throw out of view altogether every other tooth in the patient's mouth, and to confine your attention to the pair of central upper incisors of the permanent set. They are

the test teeth, and they should exhibit the single central notch—one single small lunar cleft,—and they should generally be somewhat dwarfed in their general dimensions, sometimes slanting together, and sometimes separated, but almost always considerably smaller than the ordinary teeth. Another point which has also led to confusion is, that I did not allow for the fact that almost all patients who have suffered from inherited syphilis have also taken mercury, so that in the same mouth there are the peculiarities due to two different causes; there are mercurial-stomatitis teeth, and teeth due to the direct influence of inherited syphilis. I believe it will be in the cases in which the patients have taken the least mercury that the most characteristic conditions of inherited syphilis will be found, partly because the syphilis has been allowed to run its course, but partly because no other malformations of teeth are present. In the portrait I have recently published, showing the conditions of "mercurial teeth," I have introduced a drawing showing the two states combined. In the two figures you have a pair of central incisors which are typically syphilitic, and below them you have teeth which are mercurial. Day after day I have been looking at notched teeth, and constantly have been avowing my extreme confidence in them as signs; so that I think the Society may take this as a fact of very considerable value. The cases have been also seen by those who would be quick at recognising any failure in the evidence, and if any failure had been found they would have brought the patient to me, saying, "Can you find any evidence of inherited syphilis?" Such cases have not been brought; and having given practically that challenge for the last ten years, I am quite sure such cases would have been produced if they had existed. An interesting fact happened to me only a month or two ago. At the Hospital for Skin Diseases, Mr. Waren Tay was seeing the patients for me one afternoon, and there came a woman with acne on her face, applying for no other malady. But, looking at her acne, Mr. Tay noticed that she had a characteristic pair of syphilitic teeth, but no other indication of syphilis. He kindly sent her up to my house for examination next morning. I questioned her about her state. She was twenty-four years old, so that she had passed the usual age at which she would have suffered from keratitis, and she said her sight was good. I tried her sight and found she had only half the sight she ought to have. I next availed myself of another symptom which has lately been found of very great use, and that is, the evidence of past choroiditis. In inherited syphilis, choroiditis often occurs during the first few years of life. Then it leaves the patient with more or less damage to sight, the amount being often not very much. It appears to be very common, and it is one of the signs of which we can make use in determining whether an individual or a family have or have not suffered from syphilis, for it is very seldom found excepting in connexion with that disease. Here, then, was Mr. Tay's patient with a pair of characteristic central incisors, and when I could use the ophthalmoscope I felt very much as if I had another almost conclusive method of determining the truth. If I have the two things, each of which I think to be diagnostic of inherited syphilis, occurring in the same patient, then I believe I am justified in believing the patient to have suffered from syphilis. This woman had choroiditis of most characteristic form, and thus the evidence given by her teeth was confirmed. Then just a word or two as regards the mercurial teeth. I quite admit the justice of your secretary's remarks as to the probability that these teeth are "stomatitis-teeth" in a wider sense than if we limit the term to the stomatitis which is due to the influence of mercury; but I believe that mercury is, in English practice at any rate, by very far the most frequent influence which produces them. My interest has been a good deal drawn to this subject, because I find that these teeth always occur with a certain form of cataract. The lamellar cataract always has these badly developed teeth. That is an observation several ophthalmic surgeons have made—that you always get pitted, badly developed teeth. Mr. Coleman and myself also hit upon this fact—that with this lamellar cataract the patients never have good teeth. We found that they do not show the syphilitic malformations, but they have these malformations which seem to me in connexion with mercury. Another fact has been brought out by Professor Arlt, of Vienna, and that is, that with lamellar cataract and with these bad teeth there is always a history of convulsions in infancy; and I believe the connexion of these things is that the mercury is given for the convulsions, the convulsions cause lamellar cataract, and mercury causes the deformity of the teeth. I have taken all the evidence I could as to the history of mercury having been given in cases in which typical sets of mercurial teeth were present, and I avow my conviction that mercury is, in English practice, by very far the most common cause of these malformations. As the test teeth for syphilis are the upper central incisors, so the test teeth for mercury are the first molars. I suppose all dentists are very familiar with the fact that the first molar is the tooth to decay first: it is almost always the one which has caries first; and here, I believe, is the explanation of it. The first molar is the tooth which stomatitis damages, and the explanation of that is that the first molar is the first tooth in the patient's head to be calcified, and, proceeding in its development much more rapidly than the rest, it is the tooth which suffers most if stomatitis occurs during the first six months of life. Here seems to be a very interesting law of general application, which thoroughly fits with facts and experience. I have here a drawing showing the kind of malformation of the first molar which occurs. The first molar is the tooth which never escapes if the teeth are damaged by mercury. Next come the four incisors and the canines, they being calcified a little later than the first molar, and the two præ-molars invariably escape. You get two beautifully white præ-molars intervening between your four incisors and canines which are damaged, and the first permanent molar which is also damaged. You get your two præ-molars beautifully white and clean from the simple fact that they are calcified very much later, at a time when stomatitis is very much less frequent. I have some very remarkable facts confirming this view that this defect is due to mercurial influence, and I would like to suggest to this Society a very interesting subject for investigation, and that is, whether there are any defects of teeth whatever which are due to rickets or to scrofula. I have taken a good many drawings of teeth from scrofulous patients, and am constantly in the habit of attending the operating theatre at the London Hospital, and when a scrofulous patient is on the table of showing the teeth to the students in order to prove that with scrofula, as a rule, there is no malformation in their development. There may be white pits, there may be defects; but that you often get splendid sets of teeth in such patients there is not the slightest doubt. I have done the same as regards rickets, and I do not believe for the present that there is any malformation of the teeth with rickets; at any rate, it is a thing for those who assert it to prove. When I exhibited these drawings of mercurial teeth at another society, I was told, "Oh, these are rickety teeth; I know them well." "Do you mean the first or second set?" "The first set." "Well," I replied to my critic, "I mean only the second set." Permit me to repeat now, it is only the second set which are involved in deformities from mercury or syphilis. In many German books, although many authors allude to rickety teeth as if they were well known, the descriptions of them are most vague, and the assertions as to whether they are in the temporary or the secondary set are quite uncertain. I can assure this Society that the knowledge of the teeth which are associated with the rickety diathesis is as vague as it can possibly be, and very excellent work will be done by anyone who can prove that there are any peculiarities, and will show what they are, which are in association with the diathesis of rickets. I have here some casts of teeth, but they do not show any better than the drawings. I will repeat my friendly challenge, which I offered at the commencement, that I shall have the greatest pleasure in investigating the history of any patient who has a pair of syphilitic teeth without evidence of syphilis. It is a question which manifestly those engaged in dentistry can scarcely go into: it would be out of their vocation, and give offence to patients, to make any inquiries as to the previous history. Such cases in which no inquiry could be made I shall set aside as giving no evidence, but if any case should occur which seems exceptional, in which inquiry would be permitted, in which, for instance, one might be allowed to use the ophthalmoscope, it would give me very great pleasure if I can be of any assistance.

The discussion was then adjourned till the 24th of May.

THE London Society of Compositors have this year subscribed to various medical charities the sum of £102 18s.

POULTICING IN HÆMOPTYSIS.—In an attack of hæmoptysis, Dr. Noel Guéneau de Mussy recommends the application between the shoulders of a cataplasm at a temperature of 50° C. (122° F.), repeating it every four hours.—*Union Méd.*, May 4.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Board of Examiners on the 8th inst., and when eligible will be admitted to the pass examination:—

Andrew. John E., student of the Manchester School.
Atkin, Charles, of the Sheffield School.
Candler, William J., of St. Bartholomew's Hospital.
Chattock, Charles P., of the Birmingham School.
Coleman, Gerard E., of the Leeds School.
Evans, Theodore C., of St. Bartholomew's Hospital.
Fellowes, Henry T. A. B., of St. Bartholomew's Hospital.
Grawely, John G., of Guy's Hospital.
Hickman, Francis, of the Birmingham School.
Hodgson. Freeth F., of St. Bartholomew's Hospital.
Irvine, Walter G., of the Newcastle School.
Law, Edward, of the Sheffield School.
Lofthouse, John, of the Manchester School.
Makuna, Manikji Dosabhai, of the Bombay School.
Martin, Theodore, of the Birmingham School.
Osborne, James, of Guy's Hospital.
Pettinger, John H., of the Manchester School.
Reynolds, Lewis H., of Guy's Hospital.
Scowcroft, Walter, of the Manchester School.
Thompson, William T., of the Glasgow School.
Wheler, John M., of the Birmingham School.
Williams, Hugh, of the Liverpool School.

The following gentlemen passed on the 9th inst., viz.:—

Bovill, Henry H., student of Guy's Hospital.
Briscoe, John F., of Guy's Hospital.
Burdett, Henry C., of Guy's Hospital.
Coles, William J., of Guy's Hospital.
Cowburn, George H., of St. George's Hospital.
Cox, Roland F., of Guy's Hospital.
Crooke, George F., of Guy's Hospital.
Davies, Edward, of the London Hospital.
Gover, Henry J., B.A. Cantab., of St. Thomas's Hospital.
Griffith, Walter S. A., of St. Bartholomew's Hospital.
Harris, Frederick A., of St. Thomas's Hospital.
Hart, Robert A. H., of Guy's Hospital.
Johnson, William H., of St. Bartholomew's Hospital.
Leftwich, Charles H., of St. Bartholomew's Hospital.
Morris, John, of the Galway School.
Muskett, Joseph H., of the London Hospital.
Parker, William G. G., of Guy's Hospital.
Smith, Edward L., of the Charing-cross Hospital.
Stokes, Henry F., of University College.
Trewman, George T., of the Westminster Hospital.
Wylde, James H., of the Manchester School.

The following gentlemen passed on the 10th inst., viz.:—

Alexander, John, student of Guy's Hospital.
Apthorpe, Frederick W., of Guy's Hospital.
Codner, John, of Guy's Hospital.
Cowen, William A. D., of St. Thomas's Hospital.
Favell, Richard, of St. Bartholomew's Hospital.
Hope, Robert C., of the Westminster Hospital.
Jones, Edward A., of Guy's Hospital.
Symons, George F., of Guy's Hospital.
Walker, Horatio E., of Guy's Hospital.

Thirty-three candidates out of the eighty-six examined having failed to acquit themselves to the satisfaction of the Board, were referred to their anatomical and physiological studies for three months.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on April 21 and following days, the under-named gentlemen, whose names are arranged in alphabetical order, passed their final examination for the letters testimonial, and having made and subscribed the declaration in accordance with the supplemental charter, were admitted Licentiates of the College:—

Blyth, Howard.
Brennan, James Henry.
Callan, Michael.
Carruthers, Charles Ulick.
Charlton, George Robert Dighton.
Cosgrave, Ephraim MacDowel.
Duckworth, Richard Henry d'Olier.
Falvey, John Joseph.
Gunning, Robert C.
Hallows, William Bourne.
Hamilton, Thomas Kinley.
Hart, Francis Josiah.
Irwine, George Edward.
Maguire, Stanislaus.
Minchin, Robert William.
Moore, Frederick Flood.
Nesbitt, Robert.
O'Leary, Edward Hyacinth.
O'Reilly, Peter.
Pierse, Thomas.
Redmond, Joseph Michael.
Ryan, Walter Henry.
Searancke, George.
Sherlock, Henry Gregg.
Wall, Edward Aloysius.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 4:—

Bower, Ernest Dykes, Park-square, Leeds.
Carter, Frederick Heales, Great Northern Hospital.
Hetley, Henry, Hoxton House Asylum.
Glyn, Herbert Arthur, Gloucester-street, S.W.
White, Octavius Mark, Marlborough-hill, St. John's Wood.

The following gentlemen also on the same day passed their primary professional examination:—

Cæsar, Julius, London Hospital.
Morris, John Henry, Manchester School of Medicine.
Reckitt, Edward Bass, Leeds Royal Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BROWNE, THOMAS J., A.B., M.B. Univ. Dub., L.R.C.S. Edin., L.M.—Medical Officer, Public Vaccinator, and Registrar of Births, Deaths, and Marriages, to the Dungannon Dispensary District, Dungannon Union.

THOMPSON, J. ASHBURTON—Physician to the "Artists'" Amicable Fund, *vice* Somerville Scott Alison, M.D., F.R.C.P., resigned.

WATSON, W. SPENCER, M.B. Lond., F.R.C.S. Eng.—Medical Officer to the Westminster and General Life Assurance Association.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—Fleet Surgeon Daniel J. Duigan, M.D., has been placed on the Retired List from April 22, and allowed to assume the rank of Retired Deputy Inspector-General of Hospitals and Fleets from that date.

BIRTHS.

AIRY.—On May 3, at Edensor, Kidbrook-grove, Blackheath, the wife of Hubert Airy, M.A., M.D., of a son.

BRABAZON.—On April 29, at Lymm, Cheshire, the wife of Philip Brabazon, M.D., of a daughter.

BRAILEY.—On May 8, at King's-road, Brownswood-park, Green-lanes, N., the wife of W. A. Brailey, M.A., M.D., Fellow of Downing College, Cambridge, of a daughter.

DUNDAS.—On March 22, at Port Blair, the wife of George Albert Dundas, Bengal Medical Department, of a son.

HARRIS.—On May 4, at 50, Cold Harbour-lane, S.E., the wife of Henry Harris, M.R.C.S., of a daughter.

HOAR.—On May 6, at Maidstone, the wife of Charles E. Hoar, M.B., of a daughter.

PEATFIELD.—On May 3, at Pleasley Hill, Mansfield, Notts, the wife of Thos. J. Peatfield, Army Medical Department (late Royal Artillery), of a daughter.

SIMON.—On March 28, at Malacca, Straits Settlements, the wife of M. F. Simon, Assistant Colonial Surgeon, Straits Settlements, of a son.

STOCKER.—On April 30, at Peckham House, Peckham, the wife of Alonzo H. Stocker, M.D., of a son.

MARRIAGES.

BANNER—HUNT.—On May 4, at St. Luke's, South Kensington, Samuel Banner, M.R.C.S., of 11, Delamere-street, Westbourne-square, to Charlotte Augusta, only daughter of the late Major Hunt, of the 2nd Queen's.

BROWN—HATTON.—On April 27, at St. Stephen's, Twickenham, Joseph l'Oste Brown, M.R.C.S. and L.R.C.P. Lond., of Shifnal, eldest son of J. J. A. Brown, M.D., of Grantham House, Grantham, to Mary Florence, second daughter of P. Valentine Hatton, Esq., of Twickenham.

FLOWER—WHITE.—On May 4, at St. Thomas's Church, Orchard-street Portman-square, Henry Vincent Flower, Esq., of Scavington, Notts, to Christine Sophia White, daughter of George Francis White, Esq., M.R.C.S. Eng.

JELLICOE—PEACOCK.—On May 3, at Christ Church, Gloucester, George Rogers Jellicoe, son of William Edward Jellicoe, late of H.E.I.C.S, to Laura, daughter of Dr. Henry Peacock, R.N., M.R.C.P., of Albion House, The Spa, Gloucester.

MARSH—BEAMAN.—On May 3, at the parish church of St. Chad, Shrewsbury, Walter Alfred Marsh, M.R.C.S. Eng., of 2, Dante-road, Newington-butts, S.E., to Alice Matilda, fourth daughter of Mr. John Beaman, of Garmstone, Salop.

MORGAN—WOODHOUSE.—On May 2, at St. Andrew's, Hertford, the Rev. Charles James Morgan, M.A., elder son of the late Rev. Canon Morgan, M.A., of Tiddenham House, Gloucestershire, to Isabel Agnes, only daughter of John Woodhouse, M.D., of Hertford.

WILMOT—WHITBY.—On May 3, at the parish church, Ottery St. Mary, Devonshire, Robert Eardley-Wilmot, M.B., of Petworth, Sussex, to Frances Gwynne, eldest daughter of C. W. Whitby, M.B., of Ottery St. Mary.

WRIGLEY—FLETCHER.—On May 3, at Cross-street Chapel, Manchester, Frederick Wrigley, of Timberhurst, Bury, to Amy Rachael, second daughter of Dr. Shepherd Fletcher, of Hope House, Kersal.

DEATHS.

ARTHUR, JOHN, Esq., L.R.C.P. Edin., F.R.C.S. Eng., on May 2, at 404, Commercial-road East, in his 71st year.

BRYANT, GEORGE N. W., younger son of the late Edward Bryant, surgeon, of St. John's-wood, on April 16, at New York, U.S., aged 63.

CLARKE, MARTHA, widow of the late William Clarke, M.R.C.S., formerly of Colombo, Ceylon, and daughter of the late Cyrus Armitage, Esq., of Manchester, on May 5, at Castle Villas, Stafford, in her 60th year.

COLEMAN, MATTHEW TROLLOPE, surgeon, on May 7, at Surbiton, Kingston-on-Thames, in his 65th year.

DURRANS, JANE, wife of Paul Durrans, of Oundle, Northants, eldest daughter of the late Peter Armstrong, of Peckham House, Surrey, and widow of Samuel Morris, M.R.C.S., L.S.A., late of Peckham House, on April 27.

EVANS, SARAH SOPHIA, wife of Samuel Evans, surgeon, etc., and youngest daughter of the late Harcourt Runnacles, on May 6, at Harwich, in her 30th year.

FAUGHT, REGINALD JOHN, infant son of Surgeon-Major Faught, A.M.D., on May 5, at Gravesend, aged five months.

INMAN, THOMAS, Esq., M.D., late of Liverpool, on May 3, at Clifton.

MACTIER, MARIA LOUISA, daughter of Dr. W. F. Mactier, late Bengal Medical Service, on April 23, at Kinnessburn, St. Andrews, N.B., in her 7th year.

MILNER, WILLIAM, Esq., M.R.C.S. Eng., on May 9, at 45, Lower Belgrave-street, S.W., aged 57.

RUSSELL, ISABEL, wife of J. Russell, of 2, Park-road, West Brompton, and daughter of Henry Croly, M.D., F.R.C.S.I., on May 5, at Greenfield, Rathfarnhan, Dublin.

THATCHER, LEWIS HAY, M.D., on May 5, at 13, Albany-street, Edinburgh.

WATTS, SOPHIA ANNE, widow of the late Henry Watts, M.D., of Eastbourne, and eldest daughter of the late Thomas Goode, of South Audley-street, on May 5, at Oakfields, West Croydon.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

DURSLEY UNION.—Medical Officer. Applications, with testimonials, to George Wenden, Clerk to the Guardians, on or before May 17.

LEICESTER UNION.—Medical Officer. Applications, with testimonials, to B. G. Chamberlain, Clerk, on or before May 16.

ROYAL INFIRMARY, LIVERPOOL.—Medical Superintendent. Candidates must be married. The Committee are desirous of engaging a gentleman whose wife could undertake the office of Matron. Applications, stating ages, number of family, etc., must be sent in on or before May 20.

STOCKPORT INFIRMARY.—Assistant House-Surgeon. Candidates must be registered, and have double qualifications. Applications and testimonials to S. W. Wilkinson, Hon. Secretary.

QUEEN'S HOSPITAL, BIRMINGHAM.—Two House-Surgeons. Salary £50 per annum, with board and lodging. Original testimonials and certificates of registration must be sent to the Secretary, on or before May 26.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Salary £100 a year, with board, washing, and furnished apartments. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, and Licentiates of the Apothecaries' Company, London. Testimonials, under cover and sealed, to the Chairman of the Medical Committee, not later than Saturday, May 13.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Knighton Union.—Mr. T. J. Eames Brown has resigned the Llanbister District; area 31,599; population 3308; salary £100 per annum.

Wincanton Union.—Dr. Henry Adams has resigned the Queen Camel District; area 7929; population 2433; salary £64 per annum.

APPOINTMENTS.

Auckland Union.—George Oliphant McCane, L.R.C.P. & L.M. Edin., L.F.P.S. Glasg., to the Byers Green District.

Christchurch Union, Southamptonshire.—Henry William Hartford, L.R.C.S. Ire., L.K. & Q.C.P. Ire., L.M.K.Q.C.P. Ire., to the Eastern District.

Dunmow Union.—Wm. Vernon, M.R.C.S. Eng., L.R.C.P. Edin., to the Bardfield District.

Prescot Union.—William Cooper, M.R.C.S. Lond., L.S.A. and L.M. Lond., to the Farnworth District.

Richmond (Surrey) Union.—George R. Cundell, M.R.C.S. Eng., L.S.A., to the Kew District.

St. Columb Major Union.—Charles Holman Parks, M.R.C.S. Lond. and L.S.A., to the Third District and the Union Workhouse.

THE SMALL-POX EPIDEMIC IN VIENNA.—Small-pox has now been prevalent at Vienna for nearly six years, and there seems at present to be but little hope of the cessation of the epidemic. In the seven weeks between February 25 and April 14 last there were 122 deaths from the disease. The *Wiener Medizinische Wochenschrift*, commenting on this state of things, complains that no progress has been made in adopting a system of compulsory vaccination, nor in insisting on such guarantees as are necessary not only for the successful performance of individual vaccinations, but also to excite confidence in the procedure among the public at large.

A FOREIGN TRIBUTE TO THE LATE DR. PARKES.—Baron Dr. Mundy terminates (*Wien. Med. Wochenschrift*, April 1) an eloquent and appreciative panegyric on Dr. Parkes in these words:—"Amidst the joyful tones of the jubilee, so well merited by the oldest and best of the military surgeons of Germany, arrives the discordant note occasioned by the loss of a man so well known to, and so highly prized by, Stromeyer. Every continental army should, were it only for a moment, dip its crape-clad standards on parade in memory of the founder and the best teacher of military hygiene in our times: the friend and benefactor of every soldier, Edmund Parkes, is no more!"

REPETITION OF ABNORMAL PRESENTATION.—A woman was recently delivered at the Clinique having a breech presentation, and her two previous deliveries had been abnormal—a foot presentation in the one, and a shoulder in the other. On this occasion Prof. Depaul observed that the finest example that he had met with of the constancy of these irregularities in certain women was that of a woman who had six deliveries, every one of them being presentation of the shoulder. Version was performed each time without any difficulty. An abnormal or peculiar conformation of the uterus has been sometimes suspected in these cases; but Prof. Depaul stated that on all the occasions on which he had had the opportunity of exploring the uterus after abnormal deliveries he had found no justification of this opinion.—*Gaz. des Hôp.*, April 1.

THE CARRIER-PIGEON.—M. La Perre de Roo observes that the trials made by Col. Laussedat have shown that a pigeon launched from a balloon at a height of 1080 metres descends rapidly to the earth while describing spiral movements. M. Tissandier and the various pigeon-launchers found during the siege of Paris that a pigeon set free at even an altitude of only 300 metres also descends rapidly in long spiral movements, while carrier-pigeons never rise to a height of 300 metres—that is, about four times higher than the towers of Notre Dame. These facts quite upset the view that has been entertained that the pigeon is guided by its power of sight during its flight; for in order to be able to discern objects at a distance of only 100 kilometres it must rise to a height of 785 metres, and for one situated at 500 kilometres distance an altitude of 19,688 metres would be required. The pigeon is therefore not guided by its visual power, and some other hypothesis is required to explain its wonderful faculty of directing its flight. It may be the possession of a sense of which we have no suspicion, or it may be piloted by atmospheric currents, the direction of which is at present unknown to science.—*Revue Méd.*, April 17.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

J. B. Ffrench.—The appointment of Surgeon-Oculist to her Majesty in Ireland, vacant by the death of Sir William Wilde, is an honorary distinction.

G. G. Maurilyan.—1. Lord Houghton's remark was, "Without absolutely agreeing with the Italian physician Salvatori, 'that the habit of drunkenness is an affair of the apothecary,' it is admitted on all sides that the 'Pharmacopœia' does contain many drugs by which the stimulant appetite may be apparently harmlessly satisfied; but their effects have not yet been sufficiently observed and tested to determine whether the remedies may not generate fresh disease. Enough, however, is known fully to justify the establishment of such institutions for the treatment of habitual intoxication, as already exist in the United States and in Scotland. If they were more generally accessible, and in more common use, they would be taken advantage of for preventive as well as for remedial purposes." 2. The first statute on record imposing restrictions for purposes of police on *alehouses* was the 5th and 6th Edward VI., cap. 25. It provided that none should keep an alehouse without a licence by two justices of the peace. The principle was afterwards extended to inns, but the licence from the justices continued to be necessary from the time of Edward VI. till 1830, when the first Beerhouse Act, 1 William IV., cap. 64, was passed.

A QUERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Alexander Wilson Philip, M.D., F.R.S., a distinguished physiologist, a good practical physician, and a voluminous writer, withdrew from London some time about 1843. His name, but without any address, is continued on the list of Fellows of the College of Physicians up to 1850. I would ask where he retired to on leaving London, and where and when he died? W. M.

UNSEXING OF WOMEN.

An article, entitled "Woman's Place in Nature and Society," by Mrs. Lynn Linton, recently published, contains, *inter alia*, such pertinent and practical remarks on "women doctors," that we lay them before our readers. "Let us," says the author, "take the medical profession, which it seems to be the prevalent craze among women to assume, and see what this comes to practically: simply to their having the pick of the profession, that is those branches undertaken in those places where there is the minimum of bodily fatigue, of exposure, of hard work, for the maximum of pay. What woman would be capable of undertaking a rough country practice such as knocks up even strong men after a time? Imagine an ordinary lady—and we have no right to assume that all our lady-doctors will be abnormally strong,—imagine a woman of ordinary physique called suddenly to a mining accident, or to one of her own special 'cases,' riding nine or ten miles over a bleak moor on a dark night in mid-winter, with the wind and rain driving furiously against her, and the night so black that she cannot see a hand's-breadth before her! The thing would be impossible; but it is by no means infrequent, as every country practitioner can testify. Yet it is these rough country practices which so often serve as stepping-stones to something better, and by a turn at which for a time so many good men have been made. It will be a dreary outlook, however, and scarcely a fair division, if, supposing that this craze takes root, the men are obliged to remain content with the rough places of the profession, to keep the former stepping-stone as their permanent position, and to forego all the easier forms of practice, because the women have appropriated them. Yet it must come to this, if it comes to anything at

all, for women would, as a rule, find a home practice, with all the helps of carriages and fixed hours for consultation, as much as their health could bear, and to put them into ruder harness would be to annihilate them altogether." Mrs. Linton adds, "This craze of unsexed manliness is a false move; we can only hope that it will pass before it has done much vital damage, though assuredly it has done damage enough already! In substituting excitement for duty, individualism for love, freedom from natural restraint for the lovely unselfishness of maternity, personal ambition for wifely devotion, it has cut at the root of all the charms and virtues of womanhood."

COMMUNICATIONS have been received from—
Messrs. Van Wyk and Co.; Dr. A. M. Buchanan, Glasgow; Dr. Herbert Baillie, London; Mr. John Bray, St. Leonard's-on-Sea; Secretary of the North-Western Association of Medical Officers of Health, Manchester; Mr. Henry Morris, London; Mr. J. Chatto, London; Mr. George Brown, London; Mr. Thomas Stone, London; Dr. Smith, Reigate, Surrey; Mr. B. R. Wheatley, London; Registrar of the Pathological Society, London; Mr. W. Donald Napier, London.

BOOKS AND PAMPHLETS RECEIVED—
Francis Vacher, Report on the Sanitary Condition of Birkenhead and Claughton-cum-Grange for 1875—Colonel James Puckle, M.S.C., Meteorology in India in relation to Cholera—Arthur Ernest Sansom, M.D. Lond., Lectures on the Physical Diagnosis of Diseases of the Heart—Rudolph Birnbaum, M.D., The Sanitary Powers of the Iron Springs of Schwalbach, a Balneological Essay—Dr. H. Von Ziemssen, Cyclopædia of the Practice of Medicine, vol. iv., Diseases of the Respiratory Organs—Army Medical Department Report for the Year 1874—A General Report of the Cases under treatment at the Seamen's Hospital, Greenwich, 1876—Bulletins de la Société Médicale des Hôpitaux de Paris, tome xii., 1875—Royal Institution of Great Britain, Reports of Weekly Evening Meetings.

PERIODICALS AND NEWSPAPERS RECEIVED—
Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—The American Socialist—Nature—Dublin Journal of Medical Science, April—Richmond and Louisville Medical Journal, April—The Students' Journal—Lincolnshire Chronicle—American Supplement to the Obstetrical Journal of Great Britain and Ireland, April—The Dublin Journal of Medical Science, May.

APPOINTMENTS FOR THE WEEK.

May 13. *Saturday* (*this day*).
Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.
Royal Institution, 3 p.m. Mr. F. J. Furnivall, "On Chaucer."

15. *Monday*.
Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Tuesday*.
Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.
Royal Institution, 3 p.m. Prof. P. M. Duncan, "On the Comparative Geology and former Physical Geographies of India, Australia, and South Africa."
Pathological Society, 8½ p.m. Dr. Moxon—Acute Aortitis causing Angina Pectoris. Dr. Yeo—Disease of Aorta. Dr. Crisp—1. Pneumonia in Birds; 2. Calcareous Matter from Urethra of Ox; 3. Abnormalities in Egg-formation. Mr. Nettleship—Sarcoma of Sclerotic. Mr. Butlin—Tumour of Scalp. Mr. Teevan—Organs after Lithotrity. Dr. Greenfield—Lymph-Adenoma. Dr. Turner—1. Acute Tuberculosis; 2. Tænia Medio-Canellata. Dr. Gowers—1. Sclerosis of Spinal Cord; 2. Cerebral Aneurism. Mr. Nunn—Tumour of Fibula. Dr. Barlow—Congenital Heart Disease. Dr. Fletcher Beach—Congenital Malformation of Heart. Dr. Semple—Specimens of Diphtheria. Mr. Pugin Thornton—Case of Thyrotomy. Mr. Gould—Pyo-Pericardium.
Statistical Society, 7¾ p.m. Meeting.

17. *Wednesday*.
Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.
Meteorological Society (25, Great George-street, Westminster), 7 p.m. Meeting.

18. *Thursday*.
Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.
Harveian Society, 8 p.m. Mr. Rickman Godlee, "On the Antiseptic Treatment of Wounds."
Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

19. *Friday*.
Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.
Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. C. T. Newton, "Recent Discoveries at Olympia."
Medical Microscopical Society, 8 p.m. Mr. J. Needham, "On a Case of Cirrhosis of Liver in a Child."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 6, 1876.

BIRTHS.

Births of Boys, 1289; Girls, 1313; Total, 2602.
Average of 10 corresponding years 1866-75, 2272·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	735	681	1416
Average of the ten years 1866-75	716·5	680·5	1397·0
Average corrected to increased population ...	...	...	1495
Deaths of people aged 80 and upwards ...	...	...	43

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	20	9	1	7	...	...	...	3
North	751729	...	10	6	...	14	2	1	2	...
Central ...	334369	...	4	1	...	6	...	...	...	4
East	639111	...	6	11	2	14	1	...	3	2
South	967692	2	13	21	2	34	...	6	1	6
Total	3254260	2	53	48	5	75	3	7	6	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·001 in.
Mean temperature	44·8°
Highest point of thermometer	68·1°
Lowest point of thermometer	31·5°
Mean dew-point temperature	35·9°
General direction of wind	..N.E., E., & E.S.E.
Whole amount of rain in the week...	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 6, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending May 6.	Deaths Registered during the week ending May 6.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2602	1416	68·1	31·5	44·8	7·12	0·17	0·43
Brighton	100632	42·7	71	30	57·0	33·1	43·7	6·50	0·11	0·28
Portsmouth ...	124867	27·8	95	39	...	...	...	...	...	...
Norwich	83430	11·2	46	29	63·0	32·0	45·6	6·45	0·23	0·58
Plymouth	72230	51·8	52	26	58·0	36·0	45·2	7·33	0·24	0·61
Bristol	199539	44·8	149	86	69·6	31·9	45·1	7·23	0·03	0·08
Wolverhampton ...	72549	21·4	58	43	68·9	29·4	44·5	6·95	0·08	0·20
Birmingham ...	371839	44·3	335	153	69·0	31·3	44·8	7·12	0·46	1·17
Leicester	113581	35·5	89	45	67·5	29·8	45·1	7·28	0·05	0·13
Nottingham ...	93627	46·9	71	40	66·4	31·1	44·3	6·84	0·42	1·07
Liverpool	521544	100·1	385	255	63·0	35·6	45·6	7·56	0·00	0·00
Manchester ...	357917	83·4	321	211	69·0	29·5	44·6	7·01	0·00	0·00
Salford	138425	26·8	135	77	70·9	28·0	43·9	6·61	0·08	0·20
Oldham	88609	19·0	87	49	...	...	...	...	...	...
Bradford	173723	24·1	135	93	60·4	32·0	43·5	6·39	0·00	0·00
Leeds	291580	13·5	260	134	63·0	31·0	44·1	6·73	0·03	0·08
Sheffield	274914	14·0	232	139	69·0	28·2	44·9	7·17	0·02	00·5
Hull	136933	37·7	107	58	63·0	29·0	44·4	6·89	0·08	0·20
Sunderland ...	108343	32·8	89	44	69·0	35·0	47·1	8·39	0·12	0·30
Newcastle-on-Tyne	139929	26·1	102	57	60·0	28·0	41·1	5·06	0·10	0·25
Edinburgh	215146	51·3	152	104	...	...	...	...	...	...
Glasgow	545144	90·4	433	300	63·6	31·8	46·2	7·89	0·10	0·25
Dublin	314666	31·3	170	156	64·2	24·7	44·1	6·73	0·04	0·10
Total of 23 Towns in United Kingdm	8028595	37·7	6176	3589	70·9	24·7	44·5	6·95	0·12	0·30

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·00 in. The lowest was 29·40 in. at the beginning of the week, and the highest 30·32 in. on Thursday at noon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ON THE HEREDITARY TRANSMISSION OF GOUT.

By JONATHAN HUTCHINSON, F.R.C.S.,
Senior Surgeon to the London Hospital, to the Hospital for Skin Diseases, and Surgeon to the Moorfields Ophthalmic Hospital.

It has often struck me as surprising that so little has been done in trying to ascertain the conditions under which gout is transmitted from parent to offspring, and the modifications which it may possibly receive in such conveyance. Every author admits that gout is hereditary, and most account its hereditariness an important fact in its history, and a means of explaining its prevalence; but here, for the most part, attention to the question ends. It is a main object in the present paper to try to show that there are various directions in which it is well worth while to investigate this matter further. Although I can by no means hope to find answers to all or most of the questions raised, yet I may possibly be able to put them in a form which may assist in future work. Of all maladies common in English practice, gout perhaps presents us with the most interesting field for the investigation of the laws of inheritance of constitutional taints. It is a very definite disease, and, at any rate in some of its forms, easy of recognition, and it would appear to be beyond most others easy and certain of transmission. It is also prone to linger long in a family; indeed, under the habits of life which prevail amongst us, it is perhaps, although often latent for a time, rarely got rid of altogether. It is one, also, respecting which patients can in many instances give good family histories, and are by no means unwilling to do so. Tuberculosis is perhaps very similar to it in many of its facts, but in respect to it, not unfrequently, the histories are far less trustworthy, both from unwillingness to tell, and from ignorant inaccuracy as to facts. In regions where leprosy is endemic, the laws of hereditary transmission are to be observed in it almost as rigorously as they are in gout with us; but in England we have fortunately no opportunity for studying this disease. In syphilis, which affords some most instructive facts, we can study the laws of transmission only in one generation, for it seems highly probable that the taint is wholly lost in the third. In syphilis, besides, the transmission is very probably quite distinct in kind, being the transference of living specific germs, and not the hereditary descent of peculiarity of organisation.

I will commence by making a few general statements as to the transmission of a gouty taint direct from parent to child; and my first assertion shall be that *the younger children in the family are those most likely to suffer, and to suffer severely*. This is the reverse of the law in respect to syphilis; for I have elsewhere made considerable use of the fact that in it the elder children suffer most frequently, and I have urged that the circumstance that interstitial keratitis is met with in very large preponderance in elder children is an important argument in favour of the belief that it is of syphilitic origin. The reason why the one should occur preferentially in elder, and the other in younger children, is easily offered. In syphilis the taint is transitory, and the parent is gradually getting rid of it; in gout it is permanent, and becomes intensified with advancing years. And, further, syphilis is usually acquired in early years; and gout, if earned, takes the best part of a life to procure. A man's elder children are the offspring of his youth, when his constitution, *quoad* gout, is comparatively sound; his younger ones may probably be born to him in middle life, or in advancing years, when his diathesis has become developed. I feel certain that this statement is by no means a mere speculation, but is constantly illustrated in practice; and I could easily quote numerous facts from practice which bear it out.

It follows from this law that, in investigating the facts as to the direct transmission of gout, or its failure to be so transmitted, it is of great importance to inquire as to the age of the parent at the time of the birth of his children. In not a few instances, probably, parents who themselves in later life suffer severely from gout, having had their children born only in the early period of their career, have transmitted no real taint, but only a constitution liable to the more or less easy production of the disease if suitable influences be brought to bear. At any rate, we must make a strongly marked difference between children born after a parent has shown proof of the actual existence of active gout, and those born before any such manifestations. We ought to expect an unusual prevalence of hereditary gout in the children of old men belonging to the classes in which this malady is prevalent. It would be well worth doing if those in general practice amongst the richer classes, who have the opportunity, would examine this point and record the histories of all children born after manifestations of gout in their parents, in contrast with those born before.

Amongst other points in reference to the direct transmission of gout we may raise the following questions:—

Is the transmission more certain, and the taint more severe, when both parents possess it than when only one? In all probability the answer to this would be a strong affirmative.

Is transmission from the father alone or from the mother alone attended by any recognisable peculiarities in connexion with the sex of the affected parent? In reference to this point, it must be admitted that nearly all immediate transmission of gout is from the paternal side. Women scarcely ever become the subjects of acquired gout prior to or during the child-bearing period. If they show it during that period, it is almost always inherited; and thus, in its transmission to their offspring, the phenomena of atavism may complicate those of direct descent. Now, the habits of life in respect to the reputed causes of gout are so different in the two sexes, that, excepting in very early periods of life—before, that is to say, those differences have had time to be felt,—it is hopeless to attempt to ascertain whether a paternal inheritance is shared equally by girls and boys. Nor am I aware that this point has been settled in respect to any other inheritable diathesis. There is no doubt that the taint of syphilis, when derived from the father only, may be felt by his offspring of both sexes, but, as already remarked, there is probably no analogy between syphilis and gout. Remarkable instances of exemption undoubtedly occur. In some cases the effect of prepotency of one parent is probably observable in the transmission of disease as well as of physiological peculiarities. It is my impression that, when gout occurs at unusually early ages as the result of inheritance, it is observed nearly as frequently, and as severely, in girls as in boys. As I shall have occasion to state directly, very often the results of such transmission are seen in affections which differ considerably from typical gout; but if we restrict our attention for the time to the latter form, I still think that the assertion is correct, and that young girls as often suffer from it as young boys.

The problem as to the relative shares taken in the transmission of physical qualities by father and mother respectively has been attempted by many, but no certain laws have as yet been discovered. Mr. Tulliver chose a not over-clever wife, thinking he had himself intellect enough to furnish his sons well, and preferring amiability in a woman to mental endowment. He had, however, in the sequel, to find with regret that his daughter resembled himself, and his son his wife, and to remark plaintively, "But you see, when a man's got brains himself there's no knowing where they'll run to; an' a pleasant sort of soft woman may go on breeding you stupid lads and 'cute wenches, till it's like as if the world was turned topsy-turvy. It's an uncommon puzzling thing." Those who have examined the laws of transmission of morbid taints as to this matter will, I think, fully agree with Mr. Tulliver's last remark. All that we can safely assert is that remarkable instances of prepotency do occur, and sometimes in respect to one sex, sometimes to the other, and sometimes to both; whilst, on the other hand, in many instances it is most undeniable that the peculiarities of the two parents are inextricably mixed in the offspring.

In reference to the direct transmission of gout-taint, it is important to ascertain *to what extent it is efficient*, per se, *in the production of the disease*. It might seem at first sight that the fact that true gout is every now and then met with in very young persons is conclusive proof that it is capable of producing the disease independently of exciting causes. Probably this is a correct inference, but it must be made with some caution, owing to the extremely injudicious management as regards diet to which such children are often subjected. It is not by any means uncommon to find that the child of gouty parents has been allowed, or even made, to take malt liquors or wine from the earliest periods. No doubt, in a majority of cases, what is inherited is susceptibility to the influence of exciting causes, rather than an active dyscrasia. Instances

in which the children of gouty parents have been managed judiciously, with the object of counteracting the inheritance, and have yet succumbed to it, would be of much interest.

It is desirable, also, to examine somewhat as to whether the *tendency to gout receives any modifications when it has been transmitted through many generations.* Here again, however, we have to encounter the difficulty, that it is rarely or never a pure matter of inheritance, but that each generation has probably done its share to increase its patrimony. Nevertheless, it is *à priori* probable that the taint does become somewhat specialised when it has occurred in many generations. Probably, in such instances, it is far more difficult to counteract it than under other conditions.

Leaving here the questions as to direct descent from parent to child, we come to the curious but most undeniable phenomena of atavism, or the transmission of a taint from grandfather or great grandfather, to the exclusion of intermediate generations. Few doubt that this can occur both in gout and in leprosy, and those who have most investigated the latter malady hold that it is very frequent. The family histories of gout patients supply very numerous examples of it. Sometimes the exemption of one generation is complete, and sometimes there is a history of allied maladies, such as rheumatism and rheumatoid arthritis, true gout alone being excluded. Sometimes we are able to explain the exemption to some extent by the habits of those who escaped, but in others it is inexplicable.

The fact of atavism becomes especially remarkable in cases in which the exciting causes of gout have been wholly, or almost wholly, absent in the individual who suffers. The proof of its power is also much strengthened when, as we sometimes observe, several members of a family suffer together.

It is by no means always the case that we can obtain a family history through several generations with sufficient detail to avoid errors in this matter, and it is probable that we may correctly refer not a few cases to remote inheritance in which no corroborative history is obtained. I may here ask attention to a fallacy which is not infrequently encountered in pursuing inquiries of this kind—it is, that a generation is presumed to have been exempt simply because its representatives died young. A man may tell us that his father's father had gout badly, that he has got gout himself, but that neither his father nor any of his paternal uncles ever had it. On inquiry we find that the grandfather lived to be an old man, but that the father and uncles died before middle life, and therefore before the age most likely to show gout. It is by no means certain in such a case that the intermediate generation was really exempt.

It is my impression that the efficiency of atavism is so well proved in respect to gout that it is safe to assume its influence without proof in certain cases in which no other explanation can be found. In a former lecture on the "Alliances between Gout and Rheumatism," I detailed the cases of three brothers, who all in middle life became the subjects of severe paroxysmal attacks of joint disease, closely resembling true gout, but eventually taking on the form of rheumatic arthritis. They had all lived temperately; none had been much exposed to cold or damp, and they knew of no family history. Their knowledge of their predecessors did not go far back, but they spoke with confidence as to their parents. Under the conditions mentioned—three brothers all alike affected—it seemed to me inconceivable that there should not be a more or less remote hereditary history. A case which has yet more puzzled me is the following:—A gentleman, now aged about fifty, has during the last few years been repeatedly under my care for undoubted gout. He has recently been laid up by a very severe attack. Now, from boyhood he has been, as his father was, a total abstainer from all forms of stimulant, and on careful search there is scarcely any history of arthritic disease in his family. At first it was utterly denied that any relative had ever suffered from either rheumatism or gout, and further inquiry supported this statement as regards his father's side. On his mother's side, however, I learn that an aunt, herself a total abstainer, and in excellent health, has two or three of her finger-joints enlarged by rheumatic outgrowths, and that although his maternal grandfather lived to be old, and certainly had no arthritis, it is possible, or even probable, that the disease existed in the family of the maternal grandmother. The probability of inheritance will be admitted by most to be very great when severe gout shows itself in a total abstainer of the second generation. However much we may suspect the English climate and English meat-eating habits as helping the influence of port-wine and beer, there can be no hesitation in admitting that gout rarely appears without the help of the latter. As an affair of inheritance, it is common enough in abstainers, but not as one of acquisition. In the case which I have just mentioned, the proof of inheritance is, I must confess, exceedingly slight, and it becomes, therefore, of collateral interest to add that the patient in question has not been a large meat-eater, but an inordinate consumer of fruits, sugar, and sweet puddings. Although a zealous teetotaler at home, when he goes to Switzerland he takes the "light wines of the country," and twice on returning from the Continent he has had attacks of gout.

I now come to the most important question which I have to discuss, and it is as to whether in hereditary transmission gout always remains the same. It has, I think, been established beyond doubt that it is a possible, and indeed a common occurrence, for an inherited taint of syphilis to produce maladies which are very seldom indeed witnessed as the result of the acquired disease. I allude especially to interstitial keratitis; but there are several other remarkable, though perhaps less definite, peculiarities in the inherited disease. Can an inherited taint of true gout thus produce phenomena which are never met with as the results of acquired disease? It will be seen that in putting the question in this form I am not exactly asking whether gout always breeds true, whether or not it is transmutable, but a more limited one—that is, whether true gout when inherited is different from true gout when acquired? The most definite answer which I can give to this question would consist in the citation of proof that there is a peculiar form of iritis, never, I believe, observed in acquired gout, to which those who inherit the taint are in early life liable. Of this malady I have published four remarkable examples.(a) In asking the question, Does gout in hereditary transmission always remain the same? it is obvious that we take for granted that it is possible to give a definition of the term gout. For practical purposes we do, indeed, know tolerably well what we mean by that word. A patient is gouty if he is liable to recurrent attacks of sudden, and more or less acute, joint inflammation, which result in the deposit of lithate of soda in the inflamed tissues. If he has the arthritic attacks, but no deposit of the salt, we say that he is the subject of rheumatic gout. Now, it must be obvious to anyone who thinks on the subject that this deposit of lithate, although most important as the final and conclusive proof of gout, is only a result of a cause, which cause may possibly, and even very probably, stand in the same relation to many other effects. It will not do to restrict our attention too much to this one symptom. It is the state of constitution rendering a man liable to lithate of soda inflammation, which constitutes gout; and if it should now and then stop short of the production of this, its most noted result, it is still gout, and any other phenomena which are directly traceable to it as a cause ought to be called gouty. The creed which is implied in the old-fashioned expressions "latent gout," "suppressed gout," and the like, is no doubt a perfectly correct one, although the terms themselves are perhaps in strictness of language scarcely appropriate, since they are generally applied to cases in which the diathesis is neither latent nor suppressed, but in which simply some of its less usual phenomena are present. If, however, we admit this general doctrine, that there are many things truly gouty besides paroxysmal arthritis of the great toe, it will be seen that we much complicate the question, Does gout, when hereditarily transmitted, produce diseases of a different character from those met with in patients who have acquired it? We must examine in detail as to what other maladies besides the most common the acquired disease may produce. My conviction is that we should find in doing this that acquired gout is the parent of many morbid conditions which are not attended by lithate of soda deposits, and that the long category of ailments which have been attributed to it is not by any means exaggerated. In expressing this opinion, I must admit, however, that it is by no means common to find cases concerning which one may feel certain that the disease has been wholly acquired, and not in any degree a matter of inheritance. Cases are, however, abundant in which the habits of the individual have taken a very preponderating share in the production of his symptoms, and in which, in the main, the disease may be considered as acquired.

Perhaps it may not be wholly out of place to speculate for a moment upon what it is which a man inherits when he receives a tendency to gout as part of his patrimony. Not improbably, it is a peculiar organisation of his digestive,

(a) See a Clinical Lecture in the *Lancet*, January, 1874.

assimilative, and excretory viscera, which renders them respectively unable to deal well with certain principles of food. In addition to that we must, however, I think, suppose that there is also a peculiarity of the nervous system which renders him liable to be easily deranged by various atmospheric and external conditions. Otherwise it is difficult to explain the well-recognised influence of season and weather upon gouty patients. The two elements work together and influence each other; in some cases the one preponderates, and in others the other. If susceptibility to meteorological influence is great, whilst assimilation and excretion remain fairly good, then the phenomena will be those of rheumatism rather than of gout; but add to the case defective kidneys and the ability to take and digest more food than can be assimilated, and true gout is the result. Probably, in reference to this latter malady, it is not easy to overrate the importance of a tendency to disease of the kidneys. If the view at which I have hinted be correct, it will follow that the state of constitution which is inherited is one of susceptibility rather than of actual tendency to disease, and that the precise results evoked will depend very much upon the kind of post-natal influences to which the individual is exposed. If two persons of the same family, inheriting the same constitution, be exposed, the one to indolent habits and high feeding, the other to great exposure to cold and wet combined with active habits and a cautious plan of diet, the one will probably have lithate of soda gout, the other chronic rheumatic arthritis.

Let us ask how far clinical observations support this suggestion. I believe that they do so most fully; and the results of inquiry on this head, conducted with some care, and extending over a very considerable period, have led me to the conviction that there is a basis-diathesis upon which both gout and rheumatic arthritis are built, and which is to a large extent indifferent and common to both. Give to a man who inherits this diathesis diseased kidneys, and you give him gout.

I have carefully sought for cases in which during several generations the tendency to one or other of these maladies has seemed to keep pure—in which either gout alone or rheumatism alone has shown itself in a marked and definite manner. Many such may be found in respect to rheumatism, but very few as to gout. The common thing is to find gout and rheumatic arthritis, rheumatic arthritis and gout, showing themselves over and over again in members of the same family. Very often the males show gout, and the females rheumatism: the explanation in such cases being not difficult. So constant is this intermixture of the two, so commonly is it the fact that those who suffer severely from the one malady are the offspring of those who have shown the other, that I can only attribute to the neglect to attend to lessons taught by hereditary transmission the fact that any clinical observers have been found to assert a fundamental difference between the two. Without doubt gout differs from rheumatic arthritis; but it probably differs in this only—that to much that is common something is superadded.

A VALUABLE LIBRARY has been presented by Major Colquhoun, of the 77th Regiment, to the Herbert Military Hospital for the use of the patients.

PERSONATION OF M. SICHEL.—M. Sichel, who has inherited his father's celebrity as an oculist, has of late years been much annoyed by persons assuming his name, traversing the provinces, and giving advice on diseases of the eye, under pretext of selling spectacles. In 1871 and 1872 he endeavoured to bring one of these quacks to justice, and obtained several judgments against him, but always found that he had decamped from the towns in which these had been delivered. At last, in 1873, he was caught hold of at Avignon, and proved to be a Jew named Levi, and was severely punished. M. Sichel thought that henceforth he might consider himself freed from the nuisance he had so long suffered, but in 1875 he learned that another Dr. Sichel had started up, and was committing numerous rogueries in his name—sometimes declaring that he was Dr. Sichel's brother, and at others that he was the Doctor himself. Latterly, he was trying his fortune at Havre, where a former assistant of Dr. Sichel's had him arrested. He was found to be a brother of the Levi who was formerly condemned. Once taken, he was dealt with sharply enough, being sentenced to two years' imprisonment and a fine of 600 fr. He was also condemned to pay Dr. Sichel 1000 fr. damages, and to advertise his condemnation in a great number of the Paris and provincial newspapers.—*Gaz. Méd.*, May 13.

ORIGINAL COMMUNICATIONS.

CASES OF OBSCURE NERVE DISORDER.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 437.)

No. XVIII.

SEVERE GASTRALGIA OF UTERINE ORIGIN.

MRS. ——, aged forty-two (about), consulted me first September 24, 1872. She had been some years in India, and had had a good deal of anxiety; had borne three children; of nervous temperament, but cheerful and sensible. Her own account was that she had not been well since her last confinement. "Something seemed to rise from the lowest part of the bowels, below the womb at the back, and meet the food, and cause pain all round the body like pressure of iron stays, especially in front. This is more prone to occur after breakfast or any long fast. The pain is brought on by stooping or writing; is relieved by vomiting food." The disorder had existed over a year; it was generally worse before or after the catamenia. "The least excitement brings on a cold shiver down the spine, and my head and eyes swim; a burning feeling like pouring hot water over one limb comes now and then for a minute without pain." Constriction of the throat and headache occur after fatigue, and the tongue becomes white and the mouth out of taste. She stated that the womb was liable to fall, but I found it well up in the vagina, which was wide and lax; it was mobile, bulky, almost devoid of neck, and the os pretty well closed; a little muco-pus lay in the vaginal *cul-de-sac*. I advised an alum tampon or lotion, strychnia and nitric acid bis die, and ferri carb. saccht. ter die.

I did not see her again till November 11, 1873. She was then suffering the same pain as before, but on the whole worse. It was very inconstant: some days she would be quite free, not suffering perhaps for three weeks; and then she would have it for several days together, lasting an hour at a time, and recurring sometimes three times a day. The pain feels like cramp, is referred to epigastrium, and extends round the waist quite to the back. When the pain comes on she has to take off her clothes immediately, and rolls about. Retching and coughing and pummelling the back give a little relief. The pain is most apt to come on if she is long without food, and then eats even a little. No indigestion occurs if she does not have pain. Epigastrium not exactly tender, but pressure there causes the same kind of uneasiness as the attacks of pain. The heart-sounds were normal but loud, much palpitation occurred after the pain; pulse feeble. General health fair; had got stouter lately. Catamenia regular and natural. While in India she had fever, but not badly; no decided recurrence of it since return home. I prescribed one-thirty-third of a grain of phosphorus ter die, and one grain of croton chloral hydrate omni horâ when the attacks of pain came on, and a belladonna plaster to the epigastrium.

November 21.—Pain has been continuous almost ever since, but is less felt in the part covered by the plaster, and more in other parts. The attacks are succeeded by a heaviness in the head, "just as if she had taken a sleeping draught." I now tried quinine, twelve to fifteen grains in the day, and morphia and Indian hemp for mitigation of the seizures.

February 25, 1874.—The quinine disagreed, and did no good to the pain. "Nothing has ever done it good," except rest. The pain is more in the spine than it used to be. Duration of attacks very uncertain; they may last all day, or only a quarter of an hour. The abdomen seems to fall in at the upper part when the pain comes on, while the lower part swells out. During the pain she shivers and feels cold, and is bowed forward and drawn together as by cramp. The vagina is relaxed, the uterus *in situ*, large, bulky, mobile, painless; the membrane covering the cervix of a dull red, the os open, easily admitting a bougie; one armed with carbolic acid on cotton-wool passes easily for one inch and a half, but causes some bleeding. A large quantity of thin alkaline mucus is poured out from the vaginal walls, and has to be removed repeatedly during the examination, but there is no muco-pus hanging from the os. ℞. Ext. ergotæ liquidi ʒj. ter die; and ferri aluminatis gr. v., tinct. calumbæ ℥x., aquæ ʒss., ter die was ordered, with ext. belladon. gr. ¼, and ext. hyoscyamus gr. j. in pil. when the attacks came on.

March 7.—Has been better on the whole; has had only slight backache, and neuralgia in the face, and dazzling headaches for five days. The discharge was much less. She kept in bed.

18th.—Pain occurred on 7th and 8th; after that she was quite well till 13th, when pain recurred. She took chloral then and subsequently without effect; she says "nothing but sickness cured the pain." The matters brought up are at first food, and then fluid like very strong brine, and when that comes up she always is well. "No opiate seems to relieve the pain when it comes; anything that helps me to be sick is a comfort, as the sickness seems required to take it away." I advised liq. pot. arsenit. ℥iv. ter die, the ergot to be continued, and ℥xx. of chloric ether to be inhaled when the pain came on. These measures did no good.

My next note is dated May 11, and is to the effect that she is much better,—getting quite herself again under the care of her parents' medical attendant, who found the uterus much out of place, and had made her wear a pessary. The pain, however, recurred again, and I went down to see her in the country.

22nd.—She was in much the same state, the uterus lying rather low and bulky. The pessary which she had used was a common boxwood one; it was removed at first on account of the catamenia, and afterwards could not be replaced rightly. It was agreed to regard the uterus as the starting-point of the neuralgia, to endeavour to remove the endocervicitis, and to give support to the organ. A roll of cotton-wool steeped in glycerole of tannin was the chief local means, and rest and tonics were enjoined. The result was satisfactory.

On July 21 she writes:—"I have been gradually but decidedly improving; first I had a week free from pain, then a fortnight, and now I have just completed three weeks without any return of the old pain." She was still wearing the cotton-wool support, "which seems most effectual." Her strength and general health had improved. The same means were continued for a long time.

In April, 1875, she wrote to me that she had had no pain for seven months, though she had had much fatigue in nursing her parents.

In January of this year I heard that she was quite free from the old pain,—it had never returned.

The exact seat of pain in this case can hardly be stated; but the cutaneous nerves around the waist from epigastrium to spine were certainly implicated, as well as the gastric plexuses. These, however, were not primarily affected; the true seat of derangement was, undoubtedly, the uterus. From this starting-point the irritation must have been communicated to the spinal cord, and probably to the solar plexus. The uterus had never properly undergone involution since the last confinement; it remained bulky and congested, and was probably—as the patient herself stated—at times more or less prolapsed. It is remarkable, however, that on neither of the three occasions when I examined it did I find any material displacement, only on the last occasion it was rather low. It seems difficult to attribute the attacks of pain chiefly to the prolapsus, for they occurred not unfrequently when she was keeping quiet in bed, and had not been up for some days. Probably the endocervicitis had as much to do with the neuralgia as the prolapse. Yet it must be admitted that the effect of the pessary was at first very decided. The cotton-wool support, with the glycerole of tannin, proved a good expedient, and might be used with advantage, I imagine, in similar cases. More might have been expected from the ergot and quinine; they failed entirely, except that the former lessened the profuse serous discharge. The effect of taking food in promoting the invasion of the pain was remarkable, and so was the relief afford by vomiting. These circumstances might have been very misleading as to the true origin of the pain. Then the intermitting and irregular occurrence of the attacks and their varying duration was curious. It can hardly be supposed that the condition of the uterus varied correspondingly, and that increased uterine disorder caused the pain to come on or persist. Rather, I believe, we must consider that—the causal state of the irritation remaining the same—the morbid effect took place, or remained in abeyance, according to the impressibility of the nerve-tissue irritated. In the same way, a bony projection on the interior of the skull may cause occasional attacks of epilepsy, separated by free intervals; and Trousseau relates cases of uterine tumour (vol. ii., p. 316) where the attacks of pain were not only intermittent but periodic. Cases resembling the above are by no means rare. There is, probably, no organ whose irritation is more prone to set up remote nerve disorder than the uterus. And among the secondary disorders thus occasioned, those of the stomach are certainly among the most frequent. The association of gastralgic pain with waterbrash should be noted—the one a sensory paresis, the other a vaso-motor,—both, in this instance, dependent on remote irritation, instead of, as is usually the case, on primary failure of the solar plexus. And the heaviness in the head which succeeded the attacks, "just as if she had taken a sleeping draught," is to be regarded as another paresis induced in the same way.

CASE OF CONGENITAL HYDRONEPHROSIS

ASSOCIATED WITH IMPERFORATE RECTUM.

By HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon to St. Bartholomew's Hospital, and to the Hospital for Sick Children.

By a curious coincidence, the following case occurred only a day or two before Mr. Morris's paper on "Congenital Hydronephrosis" was read at the Medico-Chirurgical Society:—

On May 3, at the Children's Hospital, I was asked to see a male infant, three days old, who had passed nothing from the bowel since its birth, and who was frequently sick. The anus was well formed, but ended in a *cul-de-sac* about half an inch from the skin; and no bulging of the rectum, even when the child was straining, could be detected. The abdomen was large and full, but nothing more than some coils of distended intestine could be made out by external examination.

Operation.—The sphincter ani was divided in a direction backwards, and slightly also anteriorly, and an attempt was made, by deepening the anal pouch by a careful dissection, to reach the intestine; but though the finger could be introduced for more than an inch there was still no sign of it. As it was unsafe to go further in this direction, Mr. Smith agreed with me that the left loin should be opened by Amussat's operation. There was no difficulty in doing this, but when the abdominal wall had been divided nothing could be felt through the wound but the kidney, which reached down nearly to the crest of the ilium. There was no intestine in the usual position of the descending colon. There now seemed nothing better to be done than to open a coil of the small intestine, so as at least to relieve the distension of the abdomen. What appeared in every way like the peritoneum was therefore pinched up and divided, when immediately a considerable quantity (probably an ounce) of pale limpid urine, with the characteristic acid smell, escaped, propelled with such force that it formed a jet four or five inches high. On enlarging the opening a little, it could be seen that the urine was flowing from a cavity with a polished epithelial lining like a dilated ureter; and on tracing this cavity upwards it was seen to form the pelvis of the kidney. The kidney itself, it could be plainly observed, was not of its usual shape, but was spread out in a flattened layer, about two lines in thickness, over the upper portion of the cyst. When the urine had escaped, so that the cavity containing it collapsed, the small intestine was easily opened and fastened to the skin. The child died in the course of the night. No post-mortem was permitted.

Although this case is an incomplete one, the parts not having been examined after death, there can be no doubt that it was an example of congenital deficiency of the large intestine, associated with hydronephrosis. The former malformation was of so common a variety that no minute description need be given of it. It will suffice to state that the anus was well formed but blind, while the rectum and a considerable portion of the lower end of the colon were absent. The left kidney was in so thin a layer that it had almost the appearance of being a very thick and indurated portion of intestine: it was possible to be sure that it was in reality the kidney only when it had been partly drawn out through the wound. It is nearly certain that the dilated ureter did not communicate with the bladder, for the urine that escaped from it was perfectly limpid and very pale, while that which was drawn off from the bladder with a catheter was thick and of a dark-brown colour. No more can be stated about the right kidney than that, probably, it was normal, and had been the source of the fair amount of urine which the child had passed since birth. The failure to meet with the colon in the left loin is evidence in favour of Mr. Curling's opinion that it is better, in cases in which the rectum

cannot be reached from below, to open the small intestine in the left groin. Such an operation is, no doubt, attended with great peril to the child's life, but it must be confessed that the chance of saving a child whose rectum cannot be found in the pelvis is very slight; and that in the face of the possibility that the colon as well as the rectum is absent, the wisest course is to select that operation by which the distension of the intestines can be most certainly relieved. It may be useful to suggest that it is well first to pass a catheter and draw off the urine, so that there may be no danger of wounding the bladder during a search after the lower end of the rectum.

NOTE ON PHOSPHORUS PILLS.

By Messrs. ALLEN and HANBURY.

Whatever the merits, or demerits, of the Pil. Phosphori B.P., it is certain that it has failed to obtain the approval of any large number of prescribers, and is not likely ever to be generally used.

In the absence of any published formula of a thoroughly satisfactory nature, we suggest the following, which, to avoid confusion with an advertised nostrum, for which we believe it to be an efficient substitute, we propose to call Pil. Phosphori cum Sapone:—

℞. Phosphori gr. ij.
Carbon. bisulphid. ♏x. vel q.s.
solve.
Pulv. saponis dur. } āā gr. xxxv.
Pulv. guaiaci resin. }
Glycerin. gtt. xij.
Pulv. rad. glycyrrh. gr. xij. vel q.s.

ut fiat massa gr. c. To be divided into pills of the strength required, and varnished or "coated" in the ordinary way.

The mass thus formed is of good consistence, easily manipulated, readily miscible with other remedies, and (what is most important) readily soluble. It is hardly necessary to add that the very volatile bisulphide soon evaporates.

Plough-court, E.C.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

LYMPH-ADENOMA—INTENSE ANÆMIA—DEATH.

(Under the care of Dr. SILVER.)

Ann N., aged twenty-six, admitted into hospital on June 22, 1875. The patient is married, and has had three children—one stillborn, one died of diarrhœa during teething, the third (two years old) after an operation.

Family History.—Father and mother alive and healthy; phthisis on paternal side.

Past History.—Eight years ago had a tumour of two years' growth removed from right side at Middlesex Hospital. She had winter cough for three years. No history of rheumatism. Three years ago, whilst walking in street, felt giddy suddenly, with loss of power in legs, not complete. Was helped home. The weakness increased in the legs during the next fortnight, so that she could only just walk. Became then in-patient for six months in Queen-square Hospital. Was treated by galvanism. Was much better on leaving. Since leaving the hospital has had about five other attacks or exacerbations of weakness, which are brought on by worry. Has also had attacks of double vision.

Present Attack.—Applied at Charing-cross Hospital on account of a feeling of weakness and faintness, with loss of appetite, which came on about fourteen days before admission. About a week before, attacks of vomiting came on after food. Is generally pale, but about this time marked anæmia set in. Has had no internal or external hæmorrhages. Catamenia regular. For last six months has been getting thin. Has had no swelling of feet; no actual fainting. About two years and nine months ago the lumps that are now present above the left clavicle began to grow. Have not been painful.

Present Condition.—Is a very anæmic and nervous woman with above symptoms. The following is the entry on June 23:—"Complains of weakness, tendency to faint, etc. Since she has been lying in bed some of the symptoms that she had three years ago have returned—viz., trembling of a great part of the body, of the lower extremities, and of the trunk. If this comes on when the stethoscope is applied to the chest, it is found to cause several interruptions of the respiratory act. This is what she suffered from before, and what caused her tottering gait. Examination of Thorax: Somewhat wasted. Mammæ loose and flabby. Resonance fair, but somewhat less on the left side of apex. Respiratory sounds not well heard on tranquil respiration, but of fair quality, unaccompanied by crepitus or the like. Sputum not great in quantity. Heart: The action is forcible, but the apex-beat is not well marked. The transverse dulness begins about the centre of the sternum, and extends two inches and a half to the left. The diastolic sound is audible over the front of the chest generally; it is high-pitched. During the systole there is a loud murmur, somewhat rough blowing."

July 18.—Since her admission she has been treated with strychnia and iron, quinine and iron, asafœtida, etc., with benefit to the nervous symptoms. She had been an in-patient about ten days when the sore swellings in the groin were discovered; the patient did not herself know of their existence. Present condition: Lung-sounds normal; faint systolic murmur at base, not audible at apex. The swellings in the groin have diminished; those in the neck continue about the same. The area of splenic dulness reaches to the seventh space in the axilla, and extends forward about three-quarters of an inch anterior to a vertical line drawn from the nipple. The lower border reaches to costal margin. Tenderness on pressure upwards is felt. Liver dulness apparently normal. Great anæmia is still present. The blood has been examined, but no increase in the white corpuscles is present. For the last week she has had an attack of diarrhœa; has also been sick. Is taking opium and bismuth. The urine contained no albumen on June 25. A loud venous murmur was then audible in neck; not audible now.

27th.—For the last three or four days she has had a considerable amount of "soreness" in the splenic region. A poultice has been applied. Present state of lungs: Left—The percussion-note is now dull over upper two spaces; also impaired under the clavicle. Breathing very feeble. Right radial pulse smaller than left.

August 29.—Continued in much the same state. Was discharged to-day, slightly improved.

The patient was readmitted on September 21. Since leaving the hospital her health has been as follows:—About a week after going home she began to be seized with pain in the limbs, left hemicrania (severe), and cough. The cough was accompanied by marked shortness of breath, and both have continued up to present date. With the symptoms the legs also became swollen, the swelling lasting for a week, but then disappearing under effect of rest. On account of the cough and shortness of breath she again applied to the hospital.

Present Condition.—September 22.—Very anæmic—much more so than when she was last in the hospital. Complains of cough and dyspnœa chiefly. The lymphatic swelling on the left side of the neck is still present, but seems somewhat smaller than it was. There is slight pain on coughing occasionally along the lower left costal margin. No swelling in right groin. P.S. Lungs—Right anterior: Decided dulness above second rib. Vocal fremitus more perceptible than on left side, but on both it is feeble. Below second rib percussion is more resistant than normal. Over all the anterior region sonorous and subcrepitant rhonchi are audible, whilst above second rib some almost clicking râles are present. The subcrepitant râles are also most copious above third rib. Right posterior: Dulness over upper part. Subcrepitant râles and sonorous rhonchi. Respiratory murmur feeble. Left anterior and posterior: Respiration feeble all over. Few sonorous rhonchi, especially behind. Expectoration white and frothy. Circulation: No bruit at base; no anæmic murmur as previously. The spleen can be felt plainly below the lower margin of the left ribs for about a finger's-breadth, and extending forwards to a line midway between sternum and nipple. Upper line of splenic dulness extends to lower margin of sixth rib in nipple line. There is tenderness on deep pressure over the spleen. There is no excess of white blood-corpuscles in the blood. Urine contains no albumen. Has been complaining during last three days of pain along and under lower jaw.

℞. Sp. amm. arom. ʒ ss., sp. chlorof. ʒ ss., mist. quin. alk. ℥j. in 4tis hôris.

October 13.—Since admission the cough and shortness of breath have greatly abated. The various râles audible over chest have much diminished in quantity. The size of the swelling in the neck appears to be the same. Anæmia about the same.

30th.—Cough still improving. Scarcely any rhonchi now audible. Anæmia about the same.

November 16.—Râles now have disappeared from right lung. Still, however, decided flatness on percussion above third right rib; but the dulness seems less than on admission. General condition as to cough remains much the same; anæmia, if anything, more marked. Still pain in the left hypochondrium. Temperature varied between 99° and 100° up to November 3, since which date it has not been taken. ℞. Mist. ferri co. ℥j., t. d. s.

23rd.—Face during last few days has been puffy. Urine examined, and found to contain a trace of albumen.

December 7.—Has been getting thinner since last note. Has had during her stay in the hospital several shaking fits, seemingly of a hysterical nature, as they can be controlled by the sister remonstrating with her. The temperature does not rise during these attacks. Since November 24 the temperature has been taken again, and the chart now exhibits very irregular gradations. Face still puffy.

13th.—Complains to-day of a severe toothache, due to presence of a decayed tooth. Since the onset of the toothache, the glands on the left side of the neck have rapidly increased in size. The superficial veins are enlarged over them. Enlarged glands can also now be felt above the right clavicle; whilst they are also present again in the right groin, and to a less extent in the left. The face also is more puffy since the increase in size of the cervical glands, and the swelling of the face is greater on the left side than the right. Complains of a tearing noise in the left ear. The edges of the liver and spleen can be felt below ribs; but their limits cannot be made out exactly owing, to the tenderness present in these regions. Impaired percussion above second rib on both sides, but especially on right. Expiration very prolonged and blowing under both clavicles, but more so under right. Dulness in right supraspinous fossa and right interscapular region. Hoarse rhonchi again audible. Has constant hacking cough and frothy mucous expectoration, and has had lately occasional night-sweats. Continues to get thinner. To-day the dorsa of the feet are found to be puffy; they were not so yesterday. Urine dark sherry colour, no deposit, but contains a larger quantity of albumen, and the patient says that she has passed it in less quantity during the last three weeks. Belly somewhat tumid and tympanitic. No enlarged glands palpable through walls. Complains of much tightness of breathing. Voice deep and hoarse. No dysphagia. Blood exhibits no increase of white blood-corpuscles. Is now taking the following mixture:—℞. M. expector. ℥j., tinct. camph. co. ʒss., t. d. s.; also morphia and ipecacuanha lozenges occasionally.

16th.—Since the 13th has had a severe attack of diarrhœa. Yesterday three of the motions contained blood. (The diarrhœa is supposed to have been excited by eating an apple.) Yesterday, after the malæna, the patient took half an ounce of castor oil, since which the diarrhœa has, apparently, ceased. Urine now contains three-fifths albumen. Its quantity cannot be measured owing to the diarrhœa, is dark-coloured, and has a slight deposit of granular casts. Face and feet more puffy. Left side of the face most puffy. The percussion again appears less impaired under clavicle, whilst the harsh rhonchi are less audible. There is now slight dulness over manubrium. Pain and tenderness in both hypochondria. Lower edge of spleen hard and distinct. Temperature irregular, and does not appear to bear any definite relation to the varying size of the swellings. ℞. Acidi sulph. dil. ℥xx., tinct. catechu ℥xxx., sp. chlor. ℥x., aquæ ℥ss., 3tis horis. Poultice to neck.

22nd.—Diarrhœa only amended temporarily at last note, for it is again severe. The bowels have acted seven to ten times per diem in the last three days. The chest symptoms have, however, ameliorated, the cough being less. There are now no rhonchi audible, but the percussion seems duller under both clavicles, especially under right, where also the breathing is blowing. The enlarged glands in the groins have again disappeared, whilst those on the left side of the neck are smaller. The pain in the teeth has gone. The temperature for the last few days has been about normal. Urine about same character. Patient is very peevish, and complains of a nasty taste in her mouth, and a feeling of soreness, for which she is using a gargle.

29th.—Diarrhœa less; three to eleven times per diem (twenty-four hours).

January 5, 1876.—Up to the 2nd inst., the bowels became much less relaxed after the last note, the largest number of motions per diem being two. On the 3rd they acted five times, and yesterday three. ℞. Liq. ferri perch. (Squire) ℥xxx., M. quin. ℥j., t. d. s.

14th.—Since last note great exhaustion has supervened. The puffiness of the face has disappeared, and the latter has seemed to emaciate very rapidly during the last three days. General emaciation also has set in. The glands of the left side of the neck are less prominent, but have come more forward from under the sterno-mastoid, so as to appear now at its anterior border. Complained last night of a pain at left nipple. There is more splenic and hepatic tenderness. The urine, examined a few days back, showed a somewhat smaller amount of albumen; same character of casts. Feet and legs more œdematous. The diarrhœa still continues, and more severely—four to six motions per twenty-four hours. The temperature chart shows occasional sudden exacerbation of temperature. Is taking ℞. Sp. chlor. ℥x., liq. ferri perch. ℥xxx., aquæ ℥j., t. d. s.

16th.—The diarrhœa continued, and the patient gradually sank to-day at 9.30 a.m.

Post-mortem (twenty-nine hours after death).—Body: Rigor mortis nearly disappeared; œdema and pitting of leg marked; pallor of integuments very marked. On opening thorax, and dissecting back the integuments, the glandulæ concatenatæ and supra-clavicular glands on the left side were seen to be much enlarged, especially the one which had been palpable during life. This lay directly over and pressed upon the internal jugular vein. The supra-clavicular glands could be traced back from the latter under the cover of the trapezius. In the right posterior triangle there were also a few enlarged glands, but to a less extent. On section, the glands were of the colour and consistence of blanc-mange. Lungs: Right—nearly universally adherent; adhesions easily breaking down. The upper third of upper lobe was indurated and partly collapsed, and sank in water. Left—adherent at apex. Left pleura contained about eight ounces of dirty straw-coloured serum. Lungs otherwise normal. Glands: Posterior mediastinal and bronchial glands enlarged, mostly on the right side; they did not cause any material pressure on the bronchi; on section, white, mottled with copious pigment. Larynx healthy. Œsophagus healthy. Heart very small; cavities contracted and small; valves normal; left ventricle hypertrophied and contracted; colour of muscular fibres, pale; weight, five ounces. Thickness of walls—left auricle, one-eighth of an inch; left ventricle, five-eighths of an inch; right auricle, one-sixteenth of an inch; right ventricle, two-eighths of an inch. Abdomen: About eight ounces of dirty-coloured serum in peritoneal cavity. Spleen enlarged and firm; adherent firmly to stomach and neighbouring parts; on section—damson colour generally, mottled pretty uniformly with whitish foci of lymphatic tissue of about three lines in diameter—some larger, some smaller; capsule much thickened; weight, seventeen ounces and three-quarters. Liver: Capsule thickened, and with white flaky patches scattered over it; on section, contained a few white foci similar to those in spleen; weight, thirty-eight ounces and a quarter. Glands: Portal glands much enlarged. Kidneys: Capsules thickened and adherent, so that in parts the cortices adhered to them when stripped back; typical large white variety of chronic renal; surface slightly granular and mottled; weight, eleven ounces and a quarter. Retro-peritoneal glands much enlarged all the way up the spine. Mesenteric and inguinal glands also universally enlarged.

KING'S COLLEGE HOSPITAL.

PSOAS ABSCESS.

(Under the care of Sir WILLIAM FERGUSSON.)

Samuel B., aged thirteen, admitted February 15, 1875.

History.—Two years and a half ago his brother jumped upon his back, which caused him great pain, lasting for three or four days; some time after this he noticed a slight pain in this region, and he began to experience a difficulty in rising from the stooping posture, also in turning himself in bed, and he has carried himself stiffly lately.

Seven months ago he noticed a swelling in the groin, above Poupart's ligament, which gradually increased until December last, when another swelling appeared lower down and more towards the inner side of the thigh, and as this increased the first diminished. He had an attack of mumps four years ago, and soon after this had typhoid fever. No history of any strumous disease in the family.

Condition on Admission.—A very large abscess exists in the groin, causing a considerable prominence both above and below Poupart's ligament, which passes over it. The lower one is the larger, but can be greatly diminished, the upper one increasing by pressure. All the signs of abscess in this situation are present. An abnormal prominence of the spines of the lower dorsal vertebræ is observable. There is pain on percussion over the spine. ℞. Ol. morrhuæ, syr. ferri iodidi.

February 24.—An incision was made into the tumour on the inner side of the thigh, and the pus allowed to flow without pressure being applied over the tumour. The pus was thin and curdy, and occasionally obstructed the opening, necessitating the use of a director.

25th.—About eighteen ounces of pus escaped yesterday. The opening has scabbed over.

26th.—About twelve ounces more pus escaped yesterday, and the opening again closed. The scab was removed, and the pus allowed to escape freely. About thirty ounces slowly came away.

April 30.—Pus has continued to flow in gradually diminishing quantity, and is now much thinner in character. No signs of hectic have occurred, but, on the contrary, his general health has improved. Discharged.

DISEASE OF RIGHT SHOULDER-JOINT.

(Under the care of Sir WILLIAM FERGUSSON.)

James F., aged eighteen, admitted November 12, 1875.

History of Family.—Father subject to rheumatism. Mother said to be consumptive; and one sister died of consumption.

History of Individual.—He is a shoemaker; has lived temperately. Four years ago had small-pox; otherwise has enjoyed good health.

History of Present Attack.—Eight years ago he says that he sprained the shoulder in putting on his coat hastily, and the pain in it remained so severe that he was unable to use his arm for two months, at the end of which time he was able to resume his employment, only a slight stiffness of the joint remaining. He has had recurrence of the pain, with increasing stiffness, every spring since, each attack leaving the limb more disabled; and for the last seven months the pain has been continuous, with shootings of the limb at night and almost total loss of movement in the joint.

Condition on Admission.—All the muscles about the right shoulder are much wasted, the acromion and coracoid processes and the head of the humerus being very plainly seen. The movements of the joint, which are very limited, give great pain. The arm is kept firmly adducted to the side. He is very pale, and has a worn aspect.

Treatment.—After remaining in the hospital for two weeks the pain became much less, and he was placed under the influence of chloroform, and the limb forcibly moved in every direction. No swelling of the joint, but an increase of pain followed, and as this again subsided, passive motion was kept up for a few weeks, and he left the hospital much improved.

DISEASE OF LEFT SHOULDER-JOINT.

(Under the care of Sir WILLIAM FERGUSSON.)

Alfred J., aged twenty-seven, admitted on June 14, 1875.

History of Family.—Very healthy. No rheumatism or gout.

History of Individual.—He has lived very temperately, and, with the exception of a slight rheumatic affection of the left hip-joint two years ago, has never had any illnesses or disorders.

History of Present Attack.—Thirteen months ago, without any apparent cause, the left shoulder-joint began to give him pain, which has been especially troublesome at night, and of a darting character. No swelling of the joint has been observed, but it has gradually become very stiff, and the pain, although at first subject to remissions for a period of three or four days, is now continuous and more severe. His general health has remained very good.

Condition on Admission.—All the parts about the left shoulder-joint are much wasted both before and behind, the bony prominences standing out very plainly, and the head of the humerus is slightly displaced inwards towards the coracoid process. Great pain is experienced on attempting to move the limb, which is very fixed in the position of adduction.

Treatment.—Iodide of potassium and iron ordered, but without any beneficial effect.

June 26.—An attempt was made, when under the influence of chloroform, to break down the adhesions; but in addition to the extreme resistance offered, especially to the movement of abduction, bony crepitus in the joint could be plainly felt, so that it was thought advisable to desist.

For a few days after these manipulations the pain was very severe, but no swelling occurred.

He left the hospital on July 10, without any improvement in the movements of the joint, but almost free from pain.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MAY 20, 1876.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

It is generally conceded now, we imagine, that the General Council of Medical Education and Registration is a body of very considerable importance and power; and most men would naturally suppose that the choice of a representative on it must be held to be a matter of great interest to, and one calling for very careful consideration by, every one of the licensing bodies that so largely help to constitute it. It might be expected, similarly, that the consideration of an Amended Scheme for a Conjoint Examining Board for England would have a powerful interest for any one of the English corporations; for we have been told over and over again that the formation of such a Board is a matter of high and urgent importance to both the profession and the public. Both of these matters constituted part of the business to be transacted at the meeting of the Royal College of Physicians on Monday last, yet they failed, if we are rightly informed, to attract anything like so large a meeting of the Fellows as did the election of a President of the College, not long before. We will not affect to be able to explain this apparent comparative apathy; but, at any rate, the idea naturally presents itself that the College, as a body, does not now much care for, or does not believe in the vitality of, the Conjoint Schemes.

It will be seen from the short report we elsewhere give of the proceedings of the meeting that Dr. Pitman was elected as the representative of the College in the General Medical Council; and we venture, with the utmost deference, to say that we think this selection will cause some surprise. We desire to speak with the utmost respect and regard of the physician thus chosen. He has for years been a prominent, highly trusted, and most able officer of the College; he possesses a singularly intimate and exact knowledge of its business, laws, and regulations, and has renderod it invaluable services; and it may be said that the College ought to know best who will best represent it. Nevertheless, we cannot but suspect that it will be generally thought that so eminent and important a licensing body as the College of Physicians should be represented in tho General Council of Medical Education by some one still actually, or very recently, engaged in the education and examination of medical students—some one practically conversant with, and sharing in, the work of our schools. We cannot doubt from Dr. Pitman's antecedents that he will be able to render good service to the Medical Council; but is there not some probability that outside the College he may be regarded as representing the interests of the Corporation of the Royal College of Physicians rather than the wider interest of that body in the cause of general medical education, and, through that, in the public welfare?

With regard to the Amended Scheme for a Conjoint Examining Board in England, the College approved of it generally, but in reality rejected it; for, as will be seen from the terms of the resolution passed, their approval depends on the maintenance of "the original principle of each body abstaining from the exercise of its independent privilege of giving admission to the Medical Register." Now, the first clause of the Amended Scheme, after naming the co-operating bodies, runs as follows:—"It being understood that, liberty being left to such co-operating medical authorities to confer, as they think proper, their honorary distinctions and degrees, each of them will abstain, *so far as allowed by law*, [the italics are our own] from the exercise of its independent privilege of giving admission to the Medical Register." The italicised words thus introduced into the clause are of very great import, and their significance in connexion with the difficulties of the Royal College of Surgeons with regard to its qualification in midwifery will be at once apparent to everyone. It will be remembered that the College was obliged to introduce into its enabling Act, obtained last year, a clause reserving to women any rights given them by any of its charters. The College is advised that women may demand to be admitted to examination for the qualification in midwifery, and this qualification admits to the Medical Register. Any woman holding it would thus become a registered practitioner without passing the examinations of the Conjoint Board. This is rightly objected to; and so, after renewed efforts, and all the reiterated labours of the College of Surgeons, and the conference of the delegates from the co-operating authorities, a new and unlooked-for difficulty has risen to prevent the carrying out of the Conjoint Examination Scheme. This failure gives the Council of the College of Surgeons, or, at any rate, the majority which carried there the acceptance of the Amended Scheme, fresh cause for regretting their having been led to sanction any departure from the strict literal fulfilment of the regulations for candidates for the midwifery qualification, and thereby to draw attention to the potentialities for mischief possessed by the supplementary Charter of 1852.

It is right to add, however, unless we are strangely misinformed, that the Amended Scheme has been rejected by the University of Cambridge also, and not for the same reason as that which has caused its virtual rejection by the College of Physicians.

ARTERIITIS OBLITERANS.

Under the above title, Dr. Carl Friedländer, Assistant in the Pathological Institute at Strasburg, has described in the *Centralblatt Med. Wiss.* (No. 4, 1876) what he states to be "an extremely common affection of the arterial system, which has, up to the present time, almost entirely escaped notice." It consists in the development of a connective tissue, very rich in cells, inside the innermost coat of the small and middle-sized arteries, which leads to contraction of the lumen of these vessels, and finally to its complete obliteration. The earliest stage of this affection consists in a growth of small, closely agglomerated cells between the innermost elastic lamellæ and the endothelium; later on, these cells increase in size, and a greater or less quantity of intercellular substance is formed, so that the tissue assumes the character of granulation tissue, and there may be, in addition, a development in it of new vessels. The new growth may either invade the whole periphery of the lumen or may project into the latter only from one side. It may preserve the character of granulation tissue for a long time, or else may develope into a tough and sometimes completely sclerotic connective tissue. The muscular coats may become completely replaced by connective tissue in some cases in which the vessels are involved, in such chronic inflammatory processes as are attended by much induration; for example, in the callous edges of ulcers and in chronic metritis. This "arteriitis obliterans" is rarely *primary* in its origin; it is found wherever there is acute inflammation in the tissues which the vessels supply, or else where granulation tissue is the result of chronic inflammation, or where this has passed on into induration, or finally into caseation. As a "physiological type" of this affection, Dr. Friedländer mentions the process by which the ductus arteriosus and the umbilical arteries become closed in tho fœtus after birth, for this chiefly depends on a similar cell-growth in the intima.

Arteriitis obliterans, as a pathological process, plays a more or less prominent part in most chronic interstitial inflammations, but it is in *the lungs* that it assumes the greatest importance, especially as a link in that chain of phenomena which go under the name of phthisis. It exists not only in those vessels which are found lying free in cavities or in the immediate neighbourhood of ulcerating surfaces, but it is extremely frequent, in fact, almost constantly present, in the recent lobular and lobar inflammations which lead eventually to breaking down of the tissues of the lung. In animals in which affections analogous to phthisis have been produced experimentally (for instance, in rabbits in whom the inferior laryngeal nerves had been divided), arteriitis obliterans commences in the first day or two after the experiment. It seems, therefore, impossible to avoid the idea that the new growth must have a direct share in determining the malignant course of this disease, owing to the arterial anæmia which it produces in the affected tissues. This form of arteriitis also occurs in different kinds of tumours as well as in their immediate neighbourhood. It is habitually present in fibromata and in elephantiasis, and also in cancers in which the connective-tissue element predominates, especially scirrhus. It is probable that the cells of which the new growth consists in its earliest stage are, to a large extent, derived from wandering cells which have found their way into the intima from the vasa vasorum, but that they also take their origin from proliferated endothelial cells as well as from elements which have made their way between the endothelial cells out of the arterial blood. There is a very close resemblance between arteriitis obliterans and the processes which occur during the organisation of thrombi. They differ only in their very first stages, and in their finished state it is impossible to distinguish one from the other, except by the pigment which remains as a mark of a previous thrombus, though this need not even necessarily be present. Dr. Friedländer

has observed the occurrence in the veins of a process similar to that in the arteries, but it is much less common in them, and much more often complicated with thrombosis.

A process which corresponds very closely to Dr. Friedländer's arteriitis obliterans has been described by Dr. O. Heubner ("Die luetische Erkrankung der Hirnarterien"; Leipzig, 1874), as being the essential feature in syphilitic disease of the cerebral arteries; and here it appears to be sometimes primary in character, although in the majority of cases it is dependent on meningitis or gummy tumours. The cell-growth, according to Heubner, lies immediately under the endothelium, and he believes that it originates chiefly from proliferation of the cells of the latter, and not, as Friedländer suggests, from wandering cells. He also describes the existence of long, spindle-shaped cells which form a thick network under the endothelium, and regards round cells as merely an accidental and not an essential element in the growth. The syphilitic arteriitis almost always attacks one side of the artery, whereas arteriitis obliterans generally involves the whole periphery of the lumen. In both cases, however, the final result is very similar, and the vessel involved either becomes obstructed owing to thrombosis, or totally obliterated by the contraction of the new connective-tissue.

INFANTILE DIARRHŒA IN LEICESTER.

Some months ago Dr. W. E. Buck and Mr. G. C. Franklin, F.R.C.S., were appointed by the Sanitary Committee of Leicester to make an inquiry with a view to ascertain whether any local conditions could be discovered to account for the excessive mortality from infantile diarrhœa which takes place in that town in the autumn quarter of every year. They found (vide *Medical Times and Gazette*, January 22, 1876) that the disease is most prevalent in those parts of the town where the soil is water-logged, the sewers liable to be blocked up, and where houses are built on undrained "made ground"; and they recommended efficient drainage, a free outfall for the sewers, and that the practice of filling up clay-pits with ash-bin refuse, and then building on such artificial foundations, should be discontinued.

Their conclusions, which, we may say, appear to have been supported by the facts, have recently been called in question by Dr. Crane, the Medical Officer of Health for Leicester, who, in his annual report just published, states that his opinion as to the cause of the annual epidemic is quite at variance with that propounded by Dr. Buck and Mr. Franklin. He says that diarrhœa is not a specific disease, and that it does not owe its origin to local causes, but breaks out year after year, and has always done so at a particular season, not in Leicester alone, but in every town and village in the kingdom. He says, also, that at a particular season it ceases, and that for the remainder of the year scarcely a death occurs in the towns where its mortality was lately so great. He concludes, therefore, that it must depend upon a cause common to all those localities, and asks if it is possible to assign any cause but solar heat, which is common to them all without exception, and "if this be true (and it cannot be contradicted), the proposition that diarrhœa depends upon heat is undeniable."

Doubtless Dr. Buck and Mr. Franklin will be able to defend their report, but we may say, with all due respect to Dr. Crane's opinions, that the cause of the fearful mortality from infantile diarrhœa that has prevailed in Leicester for many years past should be looked for in some less remote quarter than the sun. Long-continued solar heat may, and undoubtedly does, aggravate the local conditions which are the primary causes of the diarrhœa, but that it is itself the original cause is not borne out by the facts. It may also be as well to remind those who are particularly interested in this question, that although infantile diarrhœa may break out at some time or other during the hot season in every town and village in the kingdom, the mortality from this disease is from two to four times greater in Leicester than in other towns and districts of about equal population.

THE WEEK.

TOPICS OF THE DAY.

In consequence of the notice of the Thames Conservators, requiring the local authorities of the Thames Valley district to discontinue the discharge of sewage into the Thames, the Richmond Rural Sanitary Authority have asked the Select Vestry of that parish to join them in requesting the Local Government Board to form a united district, consisting of the parishes of Richmond, Mortlake, Barnes, and Kew, for sewage purposes. At a recent meeting of the Vestry a resolution was proposed and seconded, that, with a view of carrying out the recommendations of Colonel Cox (the Government Inspector), the Clerk should ascertain if various local authorities are willing to join with Richmond in the disposal of their sewage. The Richmond Select Vestry has voted a sum of upwards of £2000 for the purchase of an old brewery, the site of a deep well, the water from which it is intended to pump up to a reservoir in Richmond-park, about to be constructed with the approval of her Majesty's Office of Works, and in this way to supply the town with water.

Small-pox has broken out with so much virulence in the Oldham Bluecoat School that it has been considered advisable to dismiss the school. The contagion has, however, spread, and about half a dozen cases have occurred in different quarters of Oldham and Manchester. The epidemic has been so serious that the authorities have considered it necessary to issue instructions for having all the children revaccinated before entering the School. At Walsall, a member of the Town Council and Board of Guardians was recently fined for not having had his child vaccinated. The attention of the authorities was publicly directed to the non-vaccination of the child by another member of the Board of Guardians.

A recent report of Dr. Sedgwick Saunders, the City Officer of Health, refers to the condition of the slaughter-houses in Aldgate as such as could only have arisen from a conviction on the part of the owners and occupiers that the Legislature intended to abolish private slaughter-houses on the expiration of the period specified in the Act of 1844. There are many objectionable features about this cluster of repulsive-looking buildings. They occupy a very considerable area, and when erected the site was, on the whole, perhaps, not ill chosen. That, however, was a long time ago, and they now stand in the heart of a densely crowded neighbourhood, approached from all directions but one by narrow, busy thoroughfares; and a more unsuitable spot for slaughter-houses, so far as the general public are concerned, could hardly be selected in London. The structures, moreover, have grown old; many of them are dilapidated, and, in spite of all that constant inspection can do, they are in many cases filthy in the extreme. They are in every respect quite unworthy of the position they occupy in the City of London; and, were the truth fully known, it would appear that in no particular would they be found more deserving condemnation than in the treatment of the animals slaughtered there. To anyone who has ever ventured to inspect one or two of these filthy little dens it would afford a feeling of great satisfaction to hear that they were to be abolished, and that the killing carried on in them was henceforth to be conducted in properly constructed slaughter-houses, under humane and intelligent supervision.

It had been hoped that scarlet fever, which was so prevalent in Melbourne and its suburbs about four months ago, was abating, but it has latterly broken out afresh with new virulence in the country districts, and fatal cases are continually

being reported in isolated spots generally supposed to be the healthiest in the colony and quite safe from infection. Doubtless from want of proper precautions, the disease seems to work its way as easily in the pure air of the mountains as it does among crowded streets and alleys with their vitiated atmosphere, and often comes in a malignant form, which carries off the victim in a day. It is proposed to close the State schools again for a time. The churches are to set apart a day for humiliation and prayer; and the Parliament is considering a Public Health Act. In the meantime there is great mortality among children, and the disease is speading, unchecked by any determined and effectual measures for stamping it out.

A singular case of accidental poisoning is reported from Cardiff. On the afternoon of the 7th inst. the Governor of Cardiff Gaol was informed that a prisoner under detention for one month was in a fit. He proceeded to the man's cell, and found him insensible, a state from which he never recovered, expiring the next day. Some time afterwards it was discovered by the chief warder that one of the acting warders, who had been directed to administer to deceased a dose of diarrhœa mixture, had given him some carbolic acid by mistake. A post-mortem examination resulted in a verdict of accidental poisoning.

On Tuesday last the President and Vice-Presidents of the Royal College of Surgeons had an interview with the Lord President of the Privy Council, for the purpose of stating to him the difficulty which the Council of the College finds in fulfilling the duty imposed on it by the 17th clause of the Charter of the 15th Victoria; that is to say, the difficulty in which the Council has been placed by its late action respecting the admission of candidates, not already holding any other medical qualification, to examination for the College Licence in Midwifery. The deputation was, of course, most courteously received, and we understand that his Grace the Lord President, with whom, we believe, was Lord Sandon, entered very fully into the matter laid before him, and showed, indeed, not a little sympathy with the Council in the "dead-lock" caused by the action of the late Midwifery Board. The deputation did not suggest that the names of persons holding no other qualification to practise than that of a certificate or licence in midwifery should be placed in a separate list in the Medical Register, the Council of the College not having accepted that part of the report of the Committee on the regulations for admission to examination for the qualification in midwifery. We have not understood that any solution of the College difficulty was even approximately arrived at; but we believe that the Government will take no action in the matter without further consultation with the College authorities.

Last week, under the auspices of the National Health Society, a lecture on the subject of Nurses for the Sick was delivered in the rooms of the Social Science Association by Miss Florence Lees, Superintendent-General of the Metropolitan and National Association for Providing Trained Nurses for the Sick Poor. Dr. Sieveking presided, and, introducing Miss Lees, said the subject on which she proposed to speak she had worked at both abroad and in this country, among rich and poor, and probably no one was more able to give an opinion on the subject. Miss Lees then delivered her address, which explained in detail the necessity that existed for making nursing a study, in order that those who followed it might secure the "social position and material awards" which belonged and were generally accorded to those who combined a scientific education with a useful calling; and in calling attention to the present serious sanitary defects among the lower classes, she strongly appealed to those interested in the poor to do all they could to provide our labouring classes with decent dwellings, and all interested in the prevention of disease to do their best to provide properly trained nurses for the sick. In winding up the proceedings the Chairman remarked that the subject of nursing had engaged his attention during the whole of his professional life, and he believed that any system to be properly carried out should be self-supporting.

The new works for improving the supply of water to Bath, which have been in course of construction since 1870, have just been completed, and on the 10th inst. were formally opened by the Mayor, Vice-Admiral Paynter, and Corporation. The new works, together with the old reservoirs, are of sufficient capacity to yield a daily supply of thirty gallons per head for each of the inhabitants of Bath, numbering 60,000. The work has been carried out under the superintendence of Mr. Alfred Mitchell, city engineer. The water is conducted to Bath from the Marshfield Valley, where the springs are collected by pipes. The cost of the work, including purchase of land and paying compensation for loss of springs and water power, has amounted to £100,000.

It will have been noticed that a correspondence has been sustained in the leading daily journal on the subject of the health of Rome. On the one hand, the British Chaplain in that city asserts that during the past eight months only three burials of English persons have taken place in the English cemetery there, none of these deaths being the result of fever; while it is computed that at least 5000 English visitors pass through Rome during one season. On the other hand, it is shown that if no deaths from typhoid fever have actually occurred in Rome, the seeds of this disease have been sown in Rome, and its victims have succumbed to it later on, upon reaching their own homes. In the absence of positive evidence at this present moment, we are unable to state what are the real facts of the case, but later on we may be in a position to give an opinion as to the sanitary condition of Rome, and the extra amount of risk, if any, which visitors to that city are called upon to undergo.

A bulletin of the Sanitary Board, issued last week, shows a serious increase of the plague at Hillah and Bagdad, but happily no extension of the epidemic outside the circle now enclosed by a sanitary cordon. At Bagdad, from April 16 to 22, there were 336 fatal cases, or an average of forty-eight per day. At Hillah 149 deaths were registered during the same period, or an average of twenty-two per day. Some isolated cases are also reported from Imam-Mousa and Nedjef, but these localities are within the sanitary cordon, outside of which, up to the 22nd ult., no case of plague had occurred. According to private information, the number of deaths at Nedjef was eleven from April 16 to 21, and at Imam-Mousa (a village about an hour's distance from Bagdad) seven from April 15 to 19.

Up to the present time we have refrained from commenting upon the mysterious death of the late Mr. Bravo, of Balham. The Home Secretary has ordered a full inquiry into this most painful and extraordinary occurrence. The principal feature of the case, and the only one on which there appears to be no diversity of opinion, is the very unsatisfactory manner in which the inquiry was conducted by the coroner of the district. The jury have entered a protest against the refusal of this functionary to call certain witnesses they desired to hear; and it is stated to have been solely due to the determined opposition of a few of their number that an open verdict was returned. Under these circumstances, it is due to everyone interested to re-open an inquiry which should never have been closed without a vigorous effort to clear away the suspicions surrounding the case, and an order from Mr. Cross is certain to insure a searching and impartial investigation. When this has taken place, we shall feel that we are at liberty to discuss fully the medical bearings of the case; at the present time,

and with another inquiry imminent, it would scarcely be in good taste to do so.

Surgeon-Major B. Gillespie, M.D., in issuing an annual report for the year 1875 on the health of the soldiers' children educated at the Aboo Lawrence School, in Rajpootana, remarks that the records contrast very favourably with the two previous years. The admissions to hospital were less than half the number admitted in 1874, and there was not a single death throughout the year. There was also an entire absence of dysentery, attributed to the alterations and improvements made in the school premises during the year in question. In June an epidemic of measles of a mild type broke out, causing fifteen admissions, and the next most prevalent disease was ague, for which fourteen patients were placed under treatment. This account speaks well for the selection of the locality as a site for a sanatorium for European troops which is erected there. The average daily temperature throughout the year is 69°, and the average fall of rain has been sixty inches during the last ten years.

The Supplement to the Monthly and Quarterly Returns of the Births, Deaths, and Marriages in Scotland during the year 1875 has just been published by the authority of the Registrar-General. During that year 123,693 births, 81,785 deaths, and 25,921 marriages were recorded; consequently, in every 1000 of the estimated population there have been 35·4 births, 23·4 deaths, and 7·4 marriages. On comparing these numbers with the results of recent experience in Scotland, it is found that the birth-rate of 1875 has been considerably above the mean of the last ten years, and a mere trifle below the birth-rates of 1865 and 1874; that the death-rate has slightly exceeded that of 1874, and is considerably above the ten years' mean; and that the marriage-rate is above the mean of the decennium, but has been several times exceeded, as, for example, in each of the last three years.

It is rumoured that a Bill will be introduced into Parliament during the present session to empower licensing bodies to admit women to examinations for their medical licences or diplomas. We have not heard, however, whether the Bill will have the support of the Government, nor whether it will attempt in any way to remove the obstacles that at present prevent female medical students from fulfilling the regulations of the English licensing bodies.

THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS, IRELAND, ON THE ARMY MEDICAL SERVICE.

As an aid to the formation of opinion on the value of the new Army Medical Warrant, we are tempted to quote the following from the speech of Dr. Hamilton, the President of the Royal College of Surgeons in Ireland, when the foundation-stone of the new buildings of the College was laid by his Grace the Lord Lieutenant:—"One of the most important grounds," said Dr. Hamilton, "on which our charter was granted to us was, to quote its words, 'the providing a sufficient number of properly educated surgeons for our Army and Navy,'—a duty which we have endeavoured to discharge to the best of our ability. A certain amount of chivalry and love of adventure has ever been a prominent trait in the Irish character, and therefore our young men gladly accepted military service, and we gave them every encouragement to do so. But a change has come. Paramount to every other duty confided to us is the maintaining the honour and dignity of our profession, and the protection of our *alumni*. Expressions of complaint, dissatisfaction, and regret reached us from our army surgeons, scattered over every region of the habitable globe, and careful investigation showed that they were not without foundation. We care not whether the Service is worked on regimental or unification principles: we regard not sentimental grievances: but we do demand that the profession of surgeon shall not be a badge of disgrace; that he shall hold the same status as his combatant brethren,—a status which is conceded to him in the relations of civil life. Their roll is, for the numbers, as full of heroic deeds of valour and self-denial—yet how few the decorations of honour, so dear to the soldier, conferred on them. We believe that an attempt is being made to improve their condition. But we would raise the voice of warning that, with the Irish surgeon, no tempting offer of more money will ever outweigh a degraded position or diminished prestige. We want—if the expression may be permitted—we want fixity of tenure. We want that warrants once signed by her gracious Majesty shall not be altered to the prejudice of those who accepted service under them. We would ask that members of a learned profession should be relieved from duties which appertain to the orderly or the purveyor's clerk. We would ask that when the medical officer becomes broken-down by overwork, by climate, or disease, his sick-leave shall be more assimilated to that of his combatant brethren in the service." Our contemporary the *Dublin Evening Mail*, in commenting on the speech, expressed the hope that these claims put forward on such an occasion, and in the presence of the Viceroy, would not fail to make their just impression. Considering how very largely the Army Medical Service has been recruited from the Irish schools, Dr. Hamilton's words ought indeed to have weight with the Secretary of State for War. But he certainly cannot draw much comfort from them. It will be observed that the greatest grievances spoken of are just those which we have pointed out as being untouched by the new Warrant; and the inference is, that it will not succeed in attracting anew the men from the Irish medical schools. We have not as yet met with any warm or unqualified praise of Mr. Hardy's Warrant. Our London contemporaries the *Broad Arrow* and the *Army and Navy Gazette* alike point out how far it falls short of what was required, and if they praise it at all, give it but the faint praise that damns.

INFANTILE MORTALITY.

In presenting his annual report upon the sanitary condition of the Basford Rural District for the year 1875, Mr. V. Whitgreave, the Medical Officer of Health, has considered it his duty to record the result of special observations made by him on infantile mortality in the district under his charge. He has with much care prepared a series of tables bearing upon this point, and he shows that of the 1044 deaths which occurred in the district in 1875, 314, or 30 per cent., were below the age of one year; in 1874 the per-centage was 34·25, whilst the average percentage in the eighteen large towns of England in 1874 was 29·25. This being a "rural" district, it would naturally be expected to give a better return (instead of a worse one) than the crowded towns, including even the metropolis. Another table elicits a most significant fact: it shows that of the 314 deaths, 281 were legitimate children, and 33 illegitimate; it also shows that of the 1913 births during the year, 1816 were legitimates, and 97 illegitimates; which indicates that while only 15½ out of every 100 legitimate children died within a year of birth, out of every 100 illegitimately born 34 died within the year. Mr. Whitgreave further remarks that the facility with which deaths can be registered without medical certificates or inquests is now well known amongst the lower orders, and they avail themselves of such to hide what is, perchance, sometimes murder, and very rarely indeed any better than criminal negligence, or ignorant poisoning by patent medicines, permitted and encouraged by the Legislature to be sold throughout the country. The report contains some suggestions for reducing the excessive rate of infant mortality (and, consequently, the general mortality), amongst which is one that a communication be forwarded to the coroners of the district,

directing their attention to the fact that during the year 1875, forty-five deaths were registered without their certificate, or that of a medical practitioner; and that similar information be sent to the Registrar-General in London; and, further, that a petition be presented to Parliament, requesting that such amendment of the Registration Act may be made as shall debar registrars from registering deaths concerning which no proper medical or coroner's certificate has been obtained.

THE HEALTH OF HASTINGS.

We have now before us two reports of the Medical Officer of Health for the Borough of Hastings, forwarded by the Urban Sanitary Authority, which demand certain notice at our hands. The first of these is the annual report of this gentleman, and in it we shall only refer to one particular paragraph relating to the water-supply. We entirely agree with him when he says, "I advocated in my last annual report a constant service of pure spring water, if possible." In this he is perfectly right; but what shall we say when in another paragraph he writes thus: "We have lately heard and read of complaints of the impurity of our water: *these statements are entirely false*"? (The italics are the gentleman's own.) In the face of what we have found and reported on, and in the face of the report of the *Lancet* Commissioner, we fear there has either been some mistake or that Mr. Ashenden has been singularly fortunate in the time and place of drawing his samples. Again, he says—"I repeat that if there is a glass of turbid water in the town, *the cistern from which it is drawn must be foul.*" (The italics are again in the original.) Now, this we can hardly understand. Either in the case of muddy water the mud must have been brought there, or else made on the spot. If brought there it could only come from the same source as the water, or it must be produced in the pipes. The latter theory is hardly tenable, though Mr. Ashenden seems to incline to it. In either case there must be something far wrong with the water or the pipes, or with both. But the wishes of Mr. Ashenden, as already set forth, are evidently so much for the welfare of the town that we shall not say another word on the subject. In the recently issued quarterly report by the same gentleman, forwarded to us by the Clerk of the Urban Sanitary Authority, occurs another little matter we feel bound to note, for it is good at all times to have a clear understanding, so as to be thoroughly accurate. The Medical Officer of Health writes thus:—"Allowing for the usual increase of population, the death-rate for last quarter is 17·7 per 1000 per annum, and if the deaths of *visitors* (35) be excluded, we have the remarkably low death-rate of 13·71, and even this might legitimately be lowered to 12·9, as *seven* of the deaths occurred in public institutions outside the borough." Meanwhile we shall not discuss the last item, but we would ask, Was not the census taken on a special day, and were not all visitors and strangers included? No doubt Hastings has an undue ratio of deaths among visitors, but to exclude them totally is an equal or greater error on the opposite side.

SANITARY MATTERS IN VICTORIA.

At the annual meeting in January last of the members of the Medical Society of Victoria, Dr. Bowen, the retiring President, gave an address, in the course of which he referred to the necessity for carrying out sanitary works in Victoria in order to preserve the health of the community, and he presented a picture which shows that there is great neglect in the colony as regards the adoption of measures to prevent the spread of disease. He said: "I have already pointed out that excreta are the carriers of disease, yet in spite of boards of health in every municipality, which undoubtedly act as far as their limited powers will allow, our public recreation-grounds and daily resorts are spread over with decomposing excreta, containing the germs of disease and death. Our rivers are polluted, our streets reek with horrid smells, and vast swamps close to or actually in the city—which, as the summer advances, are becoming the nursery and poison-beds of disease—are allowed to be covered with a dense population. Parliament, instead of grappling with a topic so vitally interesting to the whole of the colony, can hardly be persuaded to entertain the subject; and when it does so, it is in a half-hearted, unbelieving manner, that augurs ill for any useful result." As a consequence, he states that the death statistics for the latter six months of last year were appalling, and the births exceeded the deaths by only a small number. He is of opinion that the present mode of conducting sanitary affairs in Victoria requires complete reorganisation; and he suggests that all matters relating to public health should be placed under the control of a State department, with powers to compel private interests to give way to the public weal. Air and water should be frequently analysed; food should be under supervision; under no circumstances should foul or stagnant water be allowed to collect; and people should not be allowed to inhabit filthy, rotten hovels; all new buildings should be properly ventilated and drained; parks and recreation-grounds religiously preserved; and, in the city (Melbourne), the purifying influence of foliage disseminated in every available spot.

UNIVERSITY OF LONDON.

The following circular has been issued to the members of Convocation of the University, and has met with a very hearty response:—

"London, 22, Wimpole-street, W., May 16, 1876.

"Sir,—It is the turn for a medical graduate to be selected for the vacancy in the Senate.

"Permit us to lay before you the claims of Robert Barnes, M.D., to be one of the three persons for nomination by his brother-graduates. In the medical profession it is widely felt that the obstetric branch should be represented. This was originally the case in the University; but since the death of Sir Charles Locock there has been no representative of this branch. The general claims of Dr. Barnes will be readily acknowledged. As a teacher, author, hospital physician, and practitioner, he has achieved a leading position. His special claim to the confidence of Convocation is based upon the earnest and useful work he has done for the University. He was one of the first and most devoted amongst those who initiated and carried to a successful issue the ten years' struggle for the charter to which the development of the University is so greatly due. He has further served the University on many occasions by his pen in the public press; and he has filled the office of Examiner for five years.

"Should you determine to support Dr. Barnes' nomination, you will greatly oblige by attaching your name and degree to the enclosed form, and posting it to us.

"We have the honour to be, Sir, your obedient Servants,

"J. Langdon Down, M.D., 39, Welbeck-street.

"Arthur W. Edis, M.D., 22, Wimpole-street."

We must, however, add that the names of such men as Sir W. Jenner and Mr. Cooper Forster have been freely mentioned as likely candidates.

GUY'S HOSPITAL.

We understand that there has been an addition made to the surgical side of the staff of this Hospital. Hitherto, for some years past, there have been four surgeons and three assistant-surgeons. The treasurer has just appointed Mr. W. H. Acland Jacobson, B.A., M.B. Oxon., to a fourth assistant-surgeoncy. Mr. Jacobson was already connected with the teaching staff of the Hospital as Assistant Demonstrator of Anatomy and Lecturer on Comparative Anatomy. We are also informed that Mr. Turner, who for many years has ably and honourably performed the duties of Treasurer of the Hospital, has resigned, and is to be succeed in this important position by Mr. Lushington, a relative of the well-known Dr. Lushington.

THE "HASTINGS AND ST. LEONARD'S ADVERTISER."

We are, in a certain way, glad to insert the following extract from the *Hastings and St. Leonard's Advertiser*:—"The *Medical Times and Gazette* has favoured the *Advertiser* with a special article in attempted reply to our 'Item' of the 20th ult., in which we commented upon the report of our contemporary's Special Commissioner on the water-supply. The statements we then made we repeat. Our contemporary has thrown up a small cloud of words, but they avail nothing. The information on which our paragraph was based was mainly derived from the chairman of the Water Committee. That gentleman reiterates his charge that 'some of the statements in the article are positively untrue, and that the whole report is grossly exaggerated.' Our contemporary desires that a single instance of inaccuracy on the part of its Commissioner should be pointed out. That instance may be found in the report on the tanks in the eastern part. Again, the *Medical Times and Gazette* says:—'Not only in this case has our identity been completely mistaken, but we never had any dealings with the Water Committee, or any Committee whatever.' We never accused our contemporary of any such dealings. On the contrary, our charge was, 'of this Commissioner, it is said that he elected as the guide and companion of his visit to the reservoir and water-sources a gentleman who is known to be one of the most prominent of the alarmists; and that although he was invited to an interview with the Sub-Water Committee, he declined it.' There is no mistake whatever as to identity. The Commissioner and the local associate of his 'exploration' called at the water-works at the time the Sub-Water Committee was sitting. The Commissioner was told that the Committee would be happy to see him; but, as we have already stated, 'he at once declined' the suggested interview. Such is the simple statement of the chairman of the Water Committee; and it is difficult, therefore, to understand our contemporary's assertion that 'in this case our identity has been completely mistaken.'' In the first place, we are pleased to see that a journal which aspires to be the fashionable organ of Hastings is somewhat ashamed of, or at least seeks to throw on other shoulders, the language it used. We can assure the editor and proprietor that such language is nowadays uncommon among ladies and gentlemen. When it comes to be a question of Mr. Brown, the Chairman of the Water Committee, that is quite another affair. Our columns are as open to Mr. Brown as are the *Advertiser's*, provided always he authenticate his communications with his name, which seems in some way to have been overlooked in the present instance. The question of accuracy or inaccuracy we shall by-and-by discuss. Meanwhile, as regards the fog which has fallen on the *Advertiser* as to our identity, the letter in another column may serve to disperse it. The visit of the St. Leonard's M.D., and the invitation vouchsafed him, had been made before we ever saw Hastings.

ST. BARTHOLOMEW'S HOSPITAL.

Last week occurred what is known at St. Bartholomew's Hospital as "the annual view-day": accordingly, the authorities, headed by Alderman Sir Sydney Waterlow, the treasurer, went over the whole establishment. The result showed that the number of patients treated in the Hospital amounted to 6282 during the year 1875; that the out-patients numbered 16,834; the casual patients, medical and surgical, to 119,583; women attended in their confinement, 631; making in all a total of 143,600. In the evening, the governing body, according to usage, dined in the ancient hall of the Hospital, which is adorned by portraits of Henry VIII., and members of the Corporation, aldermen, and others who have from time to time taken a practical interest in, and contributed to the funds of, the institution. The whole of the medical staff were honoured guests on the occasion, as were also most of the advanced pupils. In the course of the evening the health of the treasurer, Sir Sydney Waterlow, was received with enthusiasm, the compliment deriving additional interest from the circumstance that Sir Sydney was on the eve of embarking for the United States of America. The proceedings were enlivened by a choice selection of vocal music.

DEATH OF MR. ROBERT CHEERE.

It is our painful duty to-day to record the death of Mr. Robert Cheere, which took place suddenly on Sunday last at Papworth Hall, of which only about three years since he had become the proprietor. It is probable that no man not belonging to our own profession was ever so largely known and so universally esteemed within it. The services he rendered to Westminster Hospital are not forgotten; and those for which King's College Hospital is his debtor are well known to all who take an interest in that institution. As treasurer of the Hospital he rendered it many substantial services, and he was a liberal contributor to its funds—indeed, he was one of the most active of its founders. As a member of the Council of King's College, his loss will be severely felt. At Clerkenwell County Court, too, of which he had been for a long term of years the Registrar, he has left behind him the reputation of a most efficient officer, whose legal knowledge was on a par with his integrity and genial kindliness. We have no doubt that the governing bodies both of King's College and King's College Hospital will take steps to commemorate Mr. Cheere's great services and sterling worth, and it will be our pleasure to record any efforts they may see fit to make in that direction. Mr. Cheere had nearly completed his sixty-sixth year.

HOSPITAL SATURDAY IN BIRMINGHAM.

At a meeting of the General Committee of the Birmingham Hospital Saturday Collection, on Tuesday, a statement was submitted of the receipts from the collections made last month in the manufactories, workshops, and other industrial establishments, on behalf of the charities of the town, showing a total of £3664 13s. 8d. After deducting expenses, the amount left for distribution was £3400, or about £100 less than on the corresponding occasion last year. The slight falling off was attributed partly to the wearing-off of the novelty of the movement, and partly, or mainly, to the slackness of trade. The proceeds were distributed among the different medical charities of the town in proportion to their work during the past twelve months, as follows:—General Hospital, £1169 10s. 1d.; Queen's, £939 11s 9d.; General Dispensary, £366 10s. 9d.; Children's Hospital, £245 0s. 3d.; Eye Hospital, £202 5s. 10d.; Sanatorium, £149 7s. 9d.; Women's Hospital, £85 9s. 5d.; Homœopathic Hospital, £123 16s. 1d.; Lying-in Charity, £53 10s. 10d.; Orthopædic Hospital, £43 9s. 4d.; Ear and Throat Infirmary, £14 13s. 4d.; Dental Dispensary, £6 14s. 7d.; total, £3400.

THE MEDICAL MICROSCOPICAL SOCIETY.

In their third annual report, which has just been issued, the Committee of the Medical Microscopical Society state that the financial position of the Society can hardly be called satisfactory, for although the balance continues steadily to increase, the arrears of subscriptions amount to the large sum of £120. If subscriptions were paid promptly, the usefulness of the Society would be enhanced, and there would be ample funds to publish the proceedings of the Society. It has been suggested that the annual subscription should be raised, but the Committee do not feel justified in adopting this suggestion, as they consider that the present subscription (10s.), if paid regularly, is ample for the requirements of the Society, and that many gentlemen would be deterred from joining if the subscription were larger.

THE COMITIA OF THE ROYAL COLLEGE OF PHYSICIANS.

At a meeting of the Royal College of Physicians, held on Monday, the 15th inst., all the gentlemen lately elected to the honour of the Fellowship were formally admitted, and J. Wickham Legg, M.D. Lond., was proposed to the College for the Fellowship, and elected. Two very important matters were considered and decided on. Dr. Pitman, the Registrar was elected as the representative of the College in the General Medical Council, in the place of Dr. Risdon Bennett, who had resigned the office on being elected President of the College. The Amended Scheme for a Conjoint Examining Board for England was then taken into consideration, and, after much discussion, the following resolution was adopted:—"That this College approve the Amended Scheme for a Conjoint Examining Board for England, provided that the original principle of each body abstaining from the exercise of its independent privilege of giving admission to the Medical Register be adhered to."

COUNTER PRESCRIBING AT COVENTRY.

The members of the Coventry and Warwickshire Medico-Ethical Society have issued a circular to all the chemists and druggists in Coventry, in which they state that they have had their attention frequently directed to the practice of "counter prescribing," which largely prevails among the chemists and druggists of the city, and which is not only illegal, but unjust to the medical profession. They therefore offer this expostulation, and express a hope that counter prescribing by chemists and druggists in Coventry will be discontinued. If the protest fails to have any good result, some of the medical men in Coventry who do not now dispense their own medicines have resolved to establish a dispensary, to which they would send all their prescriptions

GLASGOW ROYAL INFIRMARY.

At a special meeting of the managers of the Glasgow Royal Infirmary, held on the 16th inst., the following gentlemen were appointed lecturers in connexion with the proposed new medical school:—Midwifery, Dr. James Stirton; Medicine, Dr. A. Wood Smith; Materia Medica, Dr. John Dougall; Pathology, Dr. D. Foulis; Surgery, Dr. Hector C. Cameron; Medical Jurisprudence, Dr. William MacEwen; Chemistry, Mr. John Clark, Ph.D.; Anatomy, Mr. Henry E. Clark, M.R.C.S.E.; Physiology, Mr. William J. Fleming, M.B.

ST. THOMAS'S HOSPITAL.

We are glad to be able to state that the case of excision of the scapula under Mr. Mac Cormac at this Hospital is doing extremely well. There has been little or no constitutional disturbance, and the patient is quite free of pain. The wound looks healthy, and the parts are in good apposition. The dressings have been changed daily under the carbolic spray; they have consisted of a layer of protective, several folds of lint dipped in carbolised oil, and a covering of salicylised cotton-wool over all.

OXFORD DEGREES IN HEALTH.

The following notice has been issued:—

"Examinations in Preventive Medicine and Public Health.—The Board of Studies for Preventive Medicine and Public Health gives notice that it is proposed to hold an examination on the above subjects in the ensuing Michaelmas Term. The examination is open to all persons who have taken the degree of Bachelor of Medicine in the University of Oxford. Candidates are requested to send in their names to the Regius Professor of Medicine on or before October 1.

"On behalf of the Board,

"May 10, 1876." "Henry W. Acland, Chairman.

THE PHARMACEUTICAL SOCIETY'S DINNER.

The annual dinner of this flourishing body was held on Wednesday evening, at the London Tavern, under the presidency of Mr. Thomas Hyde Hills. The *réunion* was highly successful, and the dinner interesting, in that it is almost the last to be given in the historic hall of the Tavern, which is about to disappear in its old guise to make room for a Scotch bank.

GUY'S BIENNIAL FESTIVAL.

The biennial festival of the past and present students of Guy's Hospital was held at Willis's Rooms on Friday, May 5, when Dr. Samuel Wilks, F.R.S., occupied the chair.

As is always the case with this festival, it was a highly successful meeting. Two hundred and seventy-eight sat down to dinner. The Governors of the Hospital were represented by their President, the Right Honourable Lord Lawrence, G.C.B., and the Treasurer, Thos. Turner, Esq. Amongst the guests were Dr. Risdon Bennett, the President of the College of Physicians, and Sir James Paget, Bart., the President of the College of Surgeons.

In proposing the health of the Queen, the Chairman made a graceful and appropriate reference to the interest taken by her Majesty in the welfare of the hospital to which the President of the College of Physicians was attached. Similarly, he referred to the connexion of the Prince of Wales with the hospital to which the President of the College of Surgeons belonged.

The toast of the evening was, of course, "Prosperity to the School of Medicine and Surgery attached to Guy's Hospital." In the course of the speech in which he proposed this toast, the Chairman referred with satisfaction and pleasure to what he called the proudest moment of his life—the occasion on which, some years ago, he pointed out to that great pathologist and statesman, Virchow, when showing him over the Museum of Guy's Hospital, "the original preparations of Bright's disease, the original preparations of Addison's disease, and the original preparations of Hodgkin's disease." He gloried in knowing that Guy's had not only, as a rule, been in the van of medical sciences, but had produced men who were the very pioneers of new discoveries and fresh knowledge. He felt much gratified by the step recently taken by the Governors of the Hospital in naming the wards after the great men who had worked in them, and who, by their work, had made the Hospital renowned. If Astley Cooper, if Bright or Addison, had been asked, they would, he thought, have answered that the goal of their ambition would be reached if they knew that their names would be engraven upon the walls of the institution which was so dear to them. An American physician had lately said to Dr. Wilks that it seemed as if one is in sacred precincts when standing in a place which has been ennobled by the lustre shed upon it by such names.

Dr. Habershon, in the absence of Mr. Cock, proposed the toast—"The President, Treasurer, and Governors of Guy's Hospital," to which Lord Lawrence and Mr. Turner responded. The latter next proposed the Universities and the Royal Colleges, associating with the latter the names of Dr. Bennett and Sir James Paget. The reception by Guy's-men of both these honoured members of the profession was enthusiastic. That accorded to Sir James Paget must have been as gratifying to him as any expression of esteem and admiration can possibly be to anyone. It came from a body of men linked together by the strong *esprit de corps* which has always been said to characterise "conceited Guy's," and between whom and Bartholomew's men there has ever been a spirit of rivalry and emulation. Nor did Sir James lessen, but he even increased, the show of good feeling towards him when he fairly admitted that Guy's did not stand first in his affection, and suddenly resumed his seat with the admission that on all those occasions when Guy's beat St. Bartholomew's he was "bitterly disappointed."

Mr. Hilton next proposed "The Health of the Chairman." Dr. Owen Rees spoke in reply to the toast "The Honorary and Consulting Medical and Surgical Staff of Guy's Hospital," and Dr. Habershon and Mr. Cooper Forster for "The Acting Staff of the Hospital, and other Lecturers and Teachers in the School of Guy's." Sir William Gull proposed "The Past and Present Students of Guy's Hospital," coupled with the names of Dr. Lloyd for the past students, and Mr. H. N. Smith (the House-Physician) and Mr. C. T. Symonds (House-Surgeon) for the present students. He claimed this to be the first toast of

the evening; for without the students Guy's would be like the play of *Hamlet* without the character of Hamlet. They—the students, past and present, and he would add the future as well—were the very backbone and marrow of Guy's Hospital. What the School of Guy's was at the present time, it had become, he said in fifty years; and he asked what might it not become therefore in the future. He hoped and he had no doubt that it would go on achieving more and more, although he thought it was undesirable that the School should become much larger than it now is.

The last speech of the evening was made by Mr. Durham, in reply to the toast "The Honorary Secretary." We are sorry to hear rumours that this is probably the last time Mr. Durham will act as Secretary. All old Guy's-men must hope this is not true. Mr. Durham has been indefatigable in his endeavours to make these festivals agreeable, and it is well known how admirably he has succeeded. Where change is undesirable it is often disadvantageous. We trust the year 1878 will still find him in his old post. The enjoyment of the evening was enhanced by music rendered very creditably by the members of the Guy's Glee Club.

THE REPORTING OF CASES OF INFECTIOUS DISEASE.

The following memorial has been addressed to the Right Hon. G. Sclater-Booth, M.P., President of the Local Government Board:—

Sir,—The undersigned officers and members of the North-Western Association of Medical Officers of Health desire to draw your attention to the great necessity which exists for a system of registration of diseases, and especially of dangerous infectious diseases.

It is with the dangerous infectious diseases the undersigned are most specially concerned, and they desire to record their conviction that, until the reporting of cases of dangerous infectious disease is made compulsory, sanitary authorities will remain as they now are, wholly unable to cope with outbreaks of epidemic disease.

In the great majority of cases it is only when a death has actually occurred from dangerous infectious disease that the sanitary authority is made aware of the presence of the disease in its district. In the meantime valuable lives are endangered, epidemics gain a start upon those charged with the duty of suppressing them which can never be redeemed, and sanitary authorities toil in vain after outbreaks which they can never overtake.

The undersigned are strongly of opinion that it should be made compulsory upon registered medical practitioners and householders to report all cases of dangerous infectious disease to the local sanitary authority, in order that the local executive may take such measures and give such advice as the exigencies of the case may require.

We have the honour to be, Sir, yours obediently,

(Signed) Henry H. Vernon, M.D., Chairman.
Samuel Buckley, F.R.C.S., Cheetham-hill.
Francis Vacher, Medical Officer of Health, Birkenhead.
G. A. Kenyon, M.B., Chester.
Benj. Carrington, M.D. Edin., F.R.S.E., Barton (Urban) Board.
George MacGill, L.R.C.P., etc., Littleborough and Wardle.
Chas. Estcourt, F.C.S., City Analyst, Manchester.
F. Ilderton, M.R.C.P., etc., Fairfield, Manchester.
J. Maule Sutton, M.D., Oldham.
W. H. Barr, L.R.C.P., L.R.C.S., L.A.H., Bury.
Wm. Hugh Hughes, M.R.C.S., L.S.A., Ashton-under-Lyne.
Fredk. P. Weaver, M.D., Frodsham.
Edward Kennedy, B.A., M.R.C.S., L.S.A., Gorton.

King's College Hospital.—The extra appointment of Assistant-Surgeon to this Hospital has been just filled by the election of Mr. William Rose, M.B. Lond. Mr. Rose is an old King's College pupil, and has held the offices of House-Surgeon and Surgical Registrar at the Hospital.

FROM ABROAD.

Transplantation after Detachment of the Entire Scalp. Dr. A. Reverdin, a relative of the discoverer of the procedure of transplantation of the skin, relates in the *Deutsche Zeitschrift für Chirurgie*, February, 1876, a remarkable instance in which the method was employed with success.

Catherine S., aged twenty-one, was seized by the hair by the wheels of a machine in a factory, and completely scalped. A good deal of bleeding occurred at first, but soon ceased, the pain being also slight, and the girl not losing consciousness. The wound was at first treated in the simplest way, and so little did the patient suffer, that she was employed about her household affairs. After some days, however, abundant suppuration took place, and when, at the end of six months, there seemed no signs of the wound healing, the girl came to the Strasburg Hospital, and was placed under the reporter's care by Prof. Lücke, October 10, 1872. The wound was truly "colossal," exceeding thirty-five centimetres from the root of the nose to the nape of the neck, twenty-eight from one ear to the other, and fifty-seven in circumference. Its surface looked healthy, granulations, however, here and there being absent. There was abundant suppuration, the pus causing great irritation to the skin of the neck and face; and a violet-coloured cicatrix, which was very vascular, measuring from two to two and a half centimetres at different places, formed a border to the wound. Cicatrisation had for some weeks made no progress, and had, indeed, retrograded. The wound was strapped twice a day for about a week, when the granulations were found to be sufficiently developed to admit of transplantation being performed. For the removal of the pieces of skin for grafting, M. Reverdin has invented a "spoon-shaped" knife, of which he gives a figure, and which, he says, succeeds better than any other instrument. After applying the grafts, he sometimes treated the wound by leaving it open; but as this led to the formation of crusts, which loosened the grafts, he fixed them on by means of strapping, two centimetres broad, reaching from one edge of the wound to the other, and covered with cerate where in contact with the grafts to prevent these adhering. The greatest care was taken in preparing the wound for the reception of the grafts.

The wound being so large, the opportunity was taken of trying other modes besides the ordinary. And to this end more than fifty trials were made with the skin of rabbits and dogs; but at the end of two or three days the grafts disappeared. It was next tried whether the transport of small flaps in a state of granulation would succeed better; but these also, after temporary union, separated amidst suppuration. On November 15 numerous grafts of various sizes were taken from the amputated limb of a boy, at intervals of half an hour to two hours and three-quarters after the operation; by November 28 one-half of this large wound was covered with adherent grafts, and pieces of the walls of a recently extirpated dermoid cyst were also successfully transplanted. A month later the whole anterior portion of the wound had healed, and was covered with a fine cicatrix, in which large vessels could be seen. The posterior portion of the wound was healed by epidermic transplantations only; and on May 7 the patient was discharged with her large wound quite healed after seven months' treatment, which might have been expedited by a more rapid repetition of the transplantations. In February, too, she had a severe attack of erysipelas, which in part destroyed the granulations; but, after its disappearance, granulation went on more rapidly than before. On several occasions, also, cicatrisation was impeded by the occurrence of congestion, or even effusion of blood from the granulations. In the course of a few days this was usually relieved by means of gentle compression. After the patient left the hospital the cicatrisation continued quite sound until her death, which took place in childbed in September, 1874.

Pregnancy with Unruptured Hymen.

Dr. Gustav Braun, Professor of Obstetrics at Vienna, publishes (*Wien. Med. Woch.*, March 25 and April 1) three examples of this somewhat rare occurrence.

1. The first case occurred in a woman, twenty-four years of age, who was brought to the Clinic after being some hours in labour. On examination, the orifice of the urethra was observed to be very large, the edge of its mucous membrane

being puckered up into folds like the orifice of the anus. Below this the whole vaginal aperture was closed by a somewhat firm membrane, in which, at some millimetres below the urethra, was an opening the size of a lentil, which offered considerable resistance to an attempt to pass the end of the finger. On each side of this was a dark point, as if openings had once existed and had become cicatrised. A probe was easily passed through this opening to a depth of thirteen centimetres without encountering any resistance. By carrying two fingers into the rectum, it was easily ascertained that the os uteri had dilated to about six centimetres, and that the membranes were presenting. The index-finger was without much difficulty passed through the widened urethra, the sphincter of the bladder gently compressing it, and a complete exploration of the organ being readily made. According to the woman's account, it was only after her eighteenth year that any discharge of the retained menses took place, and that since then occasional discharges occurred. As to coitus, she stated that this was first commenced about two years ago, and was effected through the urethra, which is now dilated to three or four centimetres, pain always being caused by this to the last. No disturbance of the function of the bladder was ever produced. It is to be supposed that in March, 1875 (whence she dated her conception), the urethra not being entered quickly enough, ejaculation took place upon the hymen, some of the semen entering by the minute aperture described above. Dr. Braun, after some efforts, succeeded in carrying the end of his finger through this aperture, so as to reach the presenting head. Two hours later the membranes burst, and three hours afterwards the head was slowly dilating the hymen, until, after a while, this ruptured, without injury to the tissue of the vagina itself. The puerperal process was normal, no irritation of the vagina or of the bladder resulting, some vestiges of the hymen only remaining on her discharge.

2. A girl fifteen or sixteen years old brought to Dr. Braun for his opinion concerning a supposed dropsical or ovarian affection. He found by external examination that she was at her full time of pregnancy; but on attempting a per vaginam examination, he discovered that, with the exception of an aperture as large as a goose-quill, the hymen was closed. Exploration by the rectum enabled the child's head to be felt. On a more exact examination being made, it was found possible to pass the index-finger through the small aperture to a distance of about six centimetres without causing any pain. After its withdrawal, the circular duplicature closed up again, just as a caoutchouc ring would, leaving the aperture in its original form and size. The girl confessed to only one, and that a very imperfect, attempt at sexual intercourse; and her statement was believed by Dr. Braun as highly probable. A few weeks afterwards he was sent for to deliver the patient, and found everything proceed regularly, the hymen gradually giving way before the passage of the head. After recovery only some small carunculæ myrtiformes were discoverable.

3. A girl, about sixteen years old, was sent to Dr. Braun for his opinion, accompanied by a young man of eighteen or nineteen. She desired to know why her abdomen had so increased in size, she being quite well. External examination was sufficient to establish her pregnancy, and as she had a completely virginal vulva, this was confirmed by feeling the child's head through the rectum. She and her companion received the news with utter incredulity, and denied the possibility. On questioning them, however, Dr. Braun found out that there had once been imperfect intercourse. A few weeks afterwards she was delivered of a full-timed child; but as in the meantime she had been married, the author had no means of witnessing the effects of delivery on the hymen.

The following are the conclusions at which Prof. Braun arrives:—1. An unruptured condition of the hymen cannot alone be regarded as a sign of virginity. 2. The hymen may possess so much elasticity that a not very voluminous organ may penetrate the aperture without leaving any trace of its presence in the vagina, so that the individual may be regarded as a virgin in the anatomical but not in the gynæcological sense, as shown in the second case. 3. Cases 1 and 3 show that for impregnation to be produced it is not requisite that penetration of the vagina should take place, the deposition of the semen within the vulva being sufficient. 4. The accumulated blood seems, according to Case 1, to be more favourably discharged by spontaneous openings than by operative procedure. 5. The same case shows that an *error loci* may occur, the urethra taking the place of the vagina as a channel for copulation. 6. An imperforate hymen cannot be regarded as a preventive of delivery, and almost always allows of a favourable prognosis.

The Hopkins University.

In the presence of a crowded audience, comprising many dignified persons from different parts of the United States, this new institution, from which so much may reasonably be expected in the advancement of science in that country, was inaugurated at Baltimore on February 23. John Hopkins not only bequeathed the munificent sum of $3,500,000 for the endowment of a university (and a like sum for the foundation of a hospital in connexion with it), but had the good sense to leave his gift untrammcled in the hands of twelve well-selected trustees. This body, impressed with the importance of the task that devolved upon them, called upon Dr. Gilman, who had already shown his great ability as President of the University of California, to furnish them with a scheme for their future operations. This he has framed upon the widest basis, combining the best features of the German and French universities, and has himself accepted the important post of the first President. With respect to the Medical Faculty, he regards the opportunity as a most precious one of forwarding the endeavours now being so earnestly made of improving medical education in the United States; and especially of imparting to it that scientific character which can only be obtained from well-endowed chairs, filled by men chosen for their eminence and capable themselves of aiding in the progress of investigation. It remains to be seen whether the exertions of the trustees will call forth the amount of available talent they anticipate, but the best minds in the country look forward with encouraging hope upon the results that are likely to be produced. At all events, the experiment is about to be tried under most favourable circumstances.

The report for 1874-75 of Mr. Elliot, President of Harvard College, Cambridge, U.S., offers additional testimony to the increasing favour with which the elevation of the character of medical education is met with. When the scientific requirements from candidates for medical and legal diplomas were greatly increased, three or four years back, fears were entertained by many there that the funds of the institution would suffer, and the number of students fall off. The contrary has occurred; for although the grossly ignorant students have been weeded out, the number of those of a higher status has been increased, and their residence greatly prolonged, while the funds of the institution are in a flourishing state.

Professor Buckingham on Version.

From the excellent "Notes of a Lecture" delivered by the Professor of Obstetrics at Harvard Medical School, and published in the *Boston Medical and Surgical Journal* for February 24, we extract some of the useful practical hints. Called to the patient and about to examine her, he says:—

"But perhaps the pulse is very feeble and very quick; her skin, which a few hours ago was moist and warm, has become cool, and she has had no pain for some time before you saw her. On the whole, then, it would be as well to wait for reaction to come on. If you interfere now, you may cut off the small chance which she still has. The doctor or midwife, who has been with her for hours before you came, has forgotten to feed her, and has neglected to see to her bladder. All he has been trying to do has been to hurry a case which would have done better if left alone. Give her any stimulant which she can take—wine, brandy, rum with milk, or broth, and if her depression be great let her have an opiate. 'An opiate,' you say, 'will put her to sleep.' Perhaps it will,—perhaps not; but I should hope for the former effect. If you can get her a few hours' sleep she will wake with new strength, and you may go on with the turning or any other operation with much more probability of saving your patient; but if she is so very weak, the dose of opium which would produce ordinarily a long, and perhaps a suspicious or a fatal sleep, will simply stimulate her. Perhaps she cannot retain the opium; very well, throw under the skin an eighth or a sixth of a grain of morphia; and if in half an hour she is not positively warmer and more quiet, with a slower and stronger pulse, repeat it. As soon as this has been done, and before you begin to pass your hand, see to the bladder. Use a long gum-elastic catheter, and do not keep poking about under cover to find the meatus. Neither delicacy nor comfort requires this. See where your catheter goes. If you do not, you may put it up into the uterus instead of into the bladder. . . . . Keep as calm as you can. You will learn nothing

by being excited or hurrying. First of all, wash your hands clean. Use hot water, soap, and a nail-brush. If you get into the habit of doing this work without washing, you will soon get careless and go from some case of contagion to do your work. . . . . You may feel the child's ribs or an axilla, which is not to be mistaken for the cleft of the nates. The hand may be the part you first touch; do not mistake it for a foot. How is this possible? Why, the parts may be so contracted about your hand that your touch is very much impaired. Still, you may be able to close the fingers into the palm, and you may be able easily to make out the thumb. . . . . Suppose you have a foot, draw it down. It does not advance. Well, do not let it go back. Hold it firmly, and, during the next interval between pains, manipulate with the other hand on the outside of the abdomen, and you will soon find a change taking place in the form of this, and an advance going on. If not, you feel sure that if you could get both hands into the uterus you could easily turn the child. That, of course, is impossible, but you can many times do what will be equivalent to this. With the help of an assistant you can pass a noose over your forearm and up over the ankle of the child. That is as good as one hand, and will enable you to make traction yourself; or, still better, you can let an assistant draw steadily upon it, while with one hand in the uterus and one outside you manipulate to advantage. If the child is surely dead you may grasp the foot with a strong forceps instead of using the cord.

"But suppose you are sure that it is a hand, do not be alarmed. If there be room enough let it alone, and hunt for a foot. You will be surprised at the amount of room in the uterus. You will be astonished at the number of limbs that you can feel—knees, elbows, hands, and feet seem to be everywhere. . . . . We will suppose that you have got a hand and there is not room to feel for anything else; pull that down as far as you can,—and you need not fear making the case more difficult by doing so. Supinate the hand in the vagina, or out of the vulva if you can get it as far, and thus find out which hand it is, and which way the child is lying. If the thumb and your thumb are on the same side when the palms meet each other, you will know that this hand corresponds with the one you are examining with. If the thumbs do not come together they are not hands of the same side. Furthermore, the palm of the supinated hand is aiming exactly in the direction of the anterior surface of the body, and the thumb is pointing in the direction of the head. Put a cord around the wrist to keep the extremity on one side or the other of the pelvis, while you again introduce the hand, and knowing where the head lies, where the anterior part of the body is, and where the back of the child is, you will have no great doubt about the position of the feet. . . With all the care you can exercise, with all the knowledge you may possess, and with all the assistance you can have from others, these cases are frequently fatal to the child, even when you know that it was alive up to the time of the umbilicus passing out. You will often be surprised that your case has not terminated as you had anticipated. Do not promise too much. You may be mistaken in the result of your examination. You may be positive, during examination with a cramped hand, that there are more fœtuses than one. You may be sure that the two hands that you have felt, or the two feet that you have reached, are of different sizes, and belonging to twins, and yet you find one child only. The truth is that everyone makes mistakes sometimes. If he says that he never made a mistake, you may be sure of this—either he does not tell the truth, or he has had a very limited business.

"And now for the head. Still have the external abdominal pressure kept up, so that the uterus may not relax, and so that the chin may be well forced down. Now is the time, when the cord is most compressed; and a finger in the mouth, if the vagina be well dilated, and the perineum drawn a little back, will allow it to gasp, perhaps, and live a minute longer than it otherwise would. Surely it has sometimes been the case that a minute of intra-vaginal gasping has saved a life. . . Remember the axis of the curve through which the child is passing, and do not pull it forcibly forwards against the pubes, nor too far backwards against the sacrum. Remember, also, that by getting an assistant to put a finger into the vagina, and press back the perineum, you will cut off a part of the curve, and shorten the distance the head has to come. If it is retained when so far down, you can frequently disengage it by pressing a little backwards, and with a forefinger directing the chin a little to one side or the other."

REVIEWS.

On Fermentation. By P. Schützenberger, Director at the Chemical Laboratory of the Sorbonne. With twenty-eight illustrations. (International Scientific Series.) London: Henry S. King and Co. 1876.

This is one of the volumes of that excellent series of scientific works lately presented to us, and of which such world-celebrated men as Tyndall, Herbert Spencer, Marey, and Van Beneden have been exponents. The author, notwithstanding the German ring of his name, is a French professor, and gives us in a very able manner the theory of fermentation as it is taught in France at the present time. The book fills a decided hiatus. As students of biology, the phenomena of fermentations possess for us a high interest. It is impossible to understand some of those great questions which agitate the scientific mind, and which lie at the root of the theory and practice of medicine, without studying zymotic changes and the manifestations of microscopic life which accompany them. Only a short time ago men seemed satisfied with the old exposition, defined and formulated by Liebig, that fermentation meant the disruption of a complex organic body by the communication to its molecules of motion derived from another complex body in a state of molecular change. When Pasteur attacked the very basis of this theory by the demonstration of the active and, as he taught, essential agency of the low forms of microscopic life in the transmutation, his exposition was received with much incredulity. Even now the researches by which he has defended and developed his doctrines are very imperfectly known and studied. The reason is obvious enough. Every modern work on chemistry sufficiently expresses the motion hypothesis, and summarises the chemical phenomena, but the vital changes present difficulties which are too great to be treated in a class-book. The laborious investigations and close reasonings of Pasteur, moreover, have been presented in a disjointed and fragmentary manner. One who would make himself acquainted with them must search through the *Comptes-Rendus* and the annals of French science. The work of Schützenberger is valuable if only for this: that it gives us a clear and good epitome of the teaching of Pasteur, and the development of it that an ardent and scientific mind has been able to accomplish.

Fermentations are divided into two classes—the first comprising those due to the intervention of an organised ferment having a determinate form; the second including those induced by soluble albuminoids elaborated by living organisms. Of the first class, alcoholic, mannitic, lactic, ammoniacal, and butyric fermentations are treated, but the greatest space is devoted to the alcoholic, because, of course, most is known concerning it, and it may be taken as typical. Of the second class—soluble ferments or zymoses—the transformations of starch into sugar, the changes of sugars into their varieties, saponification, the action of the gastric and pancreatic secretions, and the transmutations of glucosides are considered.

The reader will see, from a perusal of this volume, that the germ theory, as applied to alcoholic fermentation, has made steady advances towards universal acceptance by scientific men. In 1860 the teaching of Liebig was paramount. He said—"Yeast, and, in general, all animal and vegetable matters in a state of putrefaction, will communicate to other bodies the condition of decomposition in which they are themselves placed; the motion which is given to their own elements by the disturbance of equilibrium is also communicated to the elements of the bodies which come into contact with them." Then appeared the record of the researches of Pasteur, with this conclusion—"My most decided opinion," said Pasteur, "on the nature of alcoholic fermentation is the following:—The chemical act of fermentation is essentially a correlative phenomenon of a vital act, beginning and ending with it. I think that there is never any alcoholic fermentation without there being, at the same time, organisation, development, multiplication of globules, or the continued, consecutive life of globules already formed." This was a rude blow to the motion hypothesis, which suffered still further when Dumas pursued the investigation. Dumas found that communication of motion, as by sonorous vibrations, had no influence on the phenomena of fermentation, and that no chemical action, although applied in various forms, was able to effect the decomposition of sugar into alcohol and carbon dioxide. Authors who have contrasted the theories

of Liebig and Pasteur have seemed scarcely aware that the great German chemist had been almost persuaded by the researches of the French observer, and that his formula had become much less narrow. Compelled to attribute more than he had previously done to the influence of living organisms, he agreed that vital motion was *one* of the modes of motion by which fermentations were effected; but he maintained that it was not the exclusive mode. Dr. Sansom called attention to this position of Liebig in his work on the antiseptic system; M. Schützenberger has done the same. The agency of the yeast-cell, then, in alcoholic fermentation is now practically admitted by all. Dumas estimated approximately that to decompose one gramme of sugar in one hour it requires 400,000,000,000 yeast-cells.

So far, it appears that the evidence is largely in favour of M. Pasteur's theory, and this evidence is sufficiently and clearly set forth in the work before us. It is, nevertheless, quite a debateable question whether we must accept Pasteur's dictum absolutely and without compromise. On this portion of the subject not only the reasonings, but the investigations of Schützenberger come prominently forward.

Berthelot, in a series of researches during 1855-60, concluded that the phenomena of alcoholic fermentation were not due exclusively to the vital acts of the plant-organism, but in part to the properties which yeast possesses in common with soluble ferments. To initiate alcoholic fermentation there must be the living cell; but this growing cell elaborates organic matter which acts in like manner with pepsine and the soluble ferments, and thus effects the decomposition. The mode of action of yeast, therefore, is compound, and the result is due to the yeast-cell itself acting as an organised ferment, and the secretion of the yeast-cell acting as a soluble ferment. M. Schützenberger lends support to this view, particularly in his chapter entitled, "Can Nothing but Alcoholic Yeast set up Alcoholic Fermentation?" He concludes that—"We can no longer regard alcoholic fermentation as the simple result of the biological intervention of a single organism, characterised by its form and by the conditions of its development, which alone has the power to split up some particular organic compound in some one particular way. The various kinds of fermentation appear to us, more and more, as particular cases of the chemical activity of living cells." It is impossible within the limits at our disposal to criticise the evidence upon which this conclusion is based. A branch of the argument, however, which relates to what may be called the respiratory phenomena of yeast, calls for a passing notice. This has especial interest to physiologists. It is well proved that yeast can absorb oxygen from liquid media in a manner strictly analogous to true respiration. The same takes place in the case of blood. The yeast-cell breathes even through a membrane. A beautifully contrived experiment shows that when red blood is allowed to circulate slowly through a sufficiently long system of tubes made of goldbeater's-skin, and immersed in a mixture of yeast and clear blood-serum, the blood makes its exit *black and venous*. The experiment is an exact illustration of the phenomena of respiration in the animal organism.

The nutrition-phenomena of yeast, as studied by M. Schützenberger, also demand close attention. The decompositions which yeast itself undergoes in the absence of a fermentescible body, are full of interest. It is clearly proved that leucine, tyrosine, sarcine, xanthine, etc., are thus formed; and all these nitrogenous compounds are derived from the splitting-up of albumen and albuminoid substances. "Their origin is not doubtful; they are formed by the decomposition of certain insoluble proteids in the yeast, and by a chemical process similar to that which takes place in the animal tissues." It is needless to say that these observations afford a basis for much speculation, as well as an inducement for further investigation.

It is a well-established conclusion, therefore, and even admitted by M. Pasteur himself, that, whilst yeast-cells are pre-eminently the agents of alcoholic fermentation, other vegetable cells can operate in like manner, though in feebler degree. In the review of the evidence on this subject, though we have references to the works of Lechartier and Bellamy, Bérard, Frémy, Béchamp, Fitz, and Traube, we fail to find any reference to the well-known observations of Professor Hallier of Jena. Nor do we find any allusion to them in the concluding chapter on the Origin of Ferments.

The portion of the book devoted to the Soluble Ferments is valuable, because here the author, whose observations and reasonings have hitherto so largely confirmed the deductions of Pasteur, clearly defines the point at which he diverges from the teaching of the latter. To consider the subject within narrower boundaries than we have as yet attempted, and to come to the question of the immediate cause of fermentation, let us look at Pasteur's dictum, uttered in 1861, and now adhered to with greater confidence. Pasteur's position is thus quoted in the work before us:—"Fermentation is a consequence of the life of ferments without oxygen. These simple organisms need oxygen so much that when they are in a medium which is deprived of it they take it even from sugar and other analogous bodies. Fermentation is, therefore, a consequence of the disturbance of equilibrium resulting from this respiration." The strong objections to this view are that the production of alcohol at the expense of sugar under the influence of a ferment is not interfered with by the presence of oxygen; and that a ferment is able to live and develope in a saccharine, nitrogenous, and mineralised medium, without the intervention of oxygen. It is obvious that M. Schützenberger thinks these objections sufficient; and that whilst he goes with Pasteur in believing in the essential *disposing agency* of living cells, he denies their *ultimate* or *effective* agency. This agency he considers to be chemical, and to have its exposition in the phenomena of action of the soluble ferments. Just as cane sugar, under the influence of a soluble nitrogenous principle (here called alterative ferment), is split up into opposite glucoses, so may the organic principle secreted by the yeast-cell be the immediate agent of the decomposition of sugar in alcoholic fermentation. These soluble ferments are many in number and diverse in action; their operation is said to be chemical, but it must be admitted that this cannot be satisfactorily explained. "That which especially distinguishes these chemical reactions, set up by these various soluble inorganic principles," says our author, "is the greatness of the effect compared with the trifling quantity of the active agent." But in criticism of this we may say that this is precisely the difficulty in the way of our admitting that these are, strictly speaking, "chemical reactions" at all. These soluble ferments seem to derive their powers as legatees, as it were, of living beings—they are all derived directly from the living organisms in the midst of which they originate, but they retain their peculiar powers long after their removal from the living organism, and whilst they themselves are unquestionably in the condition of lifeless organic matter. One analytical method suggested by M. Paul Bert serves practically to distinguish them from living ferments—compressed oxygen destroys the latter, but has no influence on the activity of the soluble ferments.

The chapter on the applications of the resources and ideas of M. Pasteur points the lesson that an investigation undertaken for the elucidation of scientific truth may have an ultimate result far beyond its immediate teaching. It is curious, in the case of M. Pasteur, that the effects of his labours have been, on the one hand, intensely practical, and on the other, extremely speculative. Thus, as regards the preservation of wine, the manufacture of vinegar, etc., M. Pasteur's researches have been the means of indicating processes of great commercial value. In the domain of less material things—the phenomena of infectious diseases—the conclusions, less decided, have initiated much speculation. "It has long appeared to us," says our author, "that Pasteur's researches on this subject have not only succeeded in determining with greater precision than before facts up to that time partly known, but that they are destined in the future to throw a bright light on etiology, and on the pathological history of contagious diseases, whether epidemic or endemic." Yet our author thinks that lately there has been little or no advance in our knowledge in this direction. The past ten years have been barren of results, and a single observation of Davaine "remains without any additional support." In this lugubrious conclusion we do not share, and we are forced to the belief that M. Schützenberger has not found evidence in this direction because he has not looked for it.

We hope to have said enough to induce many to study this work, and some, perhaps, to undertake the solution of the problems yet imperfect. We are obliged to say that the translation is sometimes awkward, and that the woodcuts are not of such quality as to enrich the book.

Transactions of the Obstetrical Society of London (Vol. XVII.) *for* 1875. London: Longmans, Green, and Co., Paternoster-row.

The volume annually issued by the Obstetrical Society of London is at all times a valuable contribution to medical

literature, but the volume of *Transactions* for 1875 has a special value, on account of its containing the discussion on the relation of puerperal fever to the infective diseases and pyæmia. As our readers will remember, this interesting discussion was opened by a masterly address from Mr. T. Spencer Wells, at the April meeting of the Society, and was continued at the May, June, and July meetings of last year. Among those who took part in the debate were—Dr. Leishman, Dr. Braxton Hicks, Mr. Hutchinson, Dr. Richardson, Dr. Barnes, Dr. Graily Hewitt, Dr. Arthur Farre, Dr. Wynn Williams, Dr. Savage, Dr. Fordyce Barker, Dr. Charles West, and other eminent physicians, surgeons, and obstetricians. The opinions of such an array of authorities on such an important subject as puerperal fever are alone sufficient to secure for this volume more than ordinary attention from the medical profession. The remainder of the volume consists for the most part of abnormal obstetric cases that have come under the observation of Fellows of the Society. There are also given catalogues of the works forming the Society's library, and of the instruments, specimens, and models in the Society's museum.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

(*From an Occasional Correspondent.*)

Paris, May 16.

The Paris Cliniques—Want of a Pathological Institute—Babies in Female Wards—Paris Examinations.

It has not yet been announced who is to succeed the lamented Béhier at the Hôtel-Dieu, but it may be assumed that Sée will accept the post of honour in the first clinic of Paris. Sée is at present Professor of Clinical Medicine in La Charité, which, you know, is one of the four public hospitals directly connected with the University, the others being the Hôtel-Dieu, La Pitié, and the Hôpital Necker. In these hospitals the University is, as it were, provided with clinics by the Assistance Publique—that marvellous body which does so much in the city. The University has, however, a hospital more its own—the Hôpital des Cliniques, opposite the Ecole de Médecine—which is directly under the government of the Faculty, and is furnished and supplied merely by the Assistance Publique. Thus, while the number of patients in the Paris hospitals is enormous, the clinics proper are but few; the students, however, largely attend most of the wards. The clinical professors, like the other visiting physicians and surgeons here, pay a daily visit to their wards at an early hour in the morning, and on alternate days deliver clinical lectures in the theatre after "going round." One of the best known of their number is said to lecture even on Sunday mornings during the summer, to provide for the wants of the *internes* and other physicians. The lectures relate not only to cases actually in the wards, but to other allied subjects, such as therapeutics. Here, too, as in London, a professor will sometimes allot his cases to particular *externes* or students, and listen to and criticise their style of examination and diagnosis; or a discussion of the case may be encouraged between several men. On the whole, therefore, there is not a great difference between the London and Paris methods in the wards. The same cannot be said about the out-patients' room. In the central hospitals, at least, the number of patients here is very small comparatively, and they appear to suffer from no disease of such consequence that they require to return. Any urgent case is at once admitted; but the ambulants proper are prescribed for after a rather lengthy conversation and a careful examination, and probably do not make their appearance again, except in the department of gynæcology. The physician or surgeon for out-patients is the same as for the wards, and, as I have said, he takes considerable trouble with those who consult him—certainly more than is taken in the average out-patient room in London. Especially praiseworthy in Paris is the careful way in which directions are given to the out-patients respecting their living, diet, and so forth. Their letter, which they carry away with them, contains perhaps half a dozen paragraphs, ordering rest in bed, warmth, special food, special drinks, a prescription for internal remedies, and possibly for external as well. Here in the out-patient room, as in the wards, one sees auscultation practised in almost every case without the stethoscope, the ear being applied immediately to a napkin on the chest. It is to be hoped, and it probably is the fact, that the French poor are more cleanly in their habits and person than some of the English.

One inquires in vain in Paris for a pathological institute—that institute *par excellence* of the German medical school. A post-mortem room is attached, instead, to each hospital, and the several medical officers, or their *internes*, make the necropsy for themselves. This they usually do after the visit, and in the presence of the students. I am told that in these days of the Republic there is some hope of a liberal grant of money to the medical school, and that France may soon possess a number of special institutes like her great rival.

Every English visitor to the female wards of the Paris hospitals must be struck with a feature which many of them present, and which is certainly uncommon at home,—the number of babies. It would appear that many women are delivered in the general hospitals; and I am told that not only are there special lying-in wards in several hospitals, but that single as well as married women are freely admitted on making application. They require no letter of recommendation, and no questions are asked.

Any day, all the year round, except from August till November, one may see in Paris a professional examination being conducted at the School of Medicine. I will not weary your readers with the dry details of the system of medical education that exists in France; I will only say that at the end of each of the first three years of his life at the University the student has to pass an examination, and at the end of the fourth no fewer than five more, besides presenting a thesis. The first three examinations are purely practical and *vivâ voce;* the last, which are for the degree of Doctor, are conducted partly by written papers as well. So far there is nothing specially remarkable; what strikes a stranger is the method of public examination. In an ancient hall in the School of Medicine the aspirants take their seat, say four together, at a table opposite three examiners, who wear their caps of office, more curious than imposing. Crowding round them on three sides, some sitting, some standing, hats off or hats on, are scores of their fellow-students, attentively listening, busy with their note-books. The professors and *professeurs agrégés* constitute the examining body, and it is said that every second day each examiner must take his turn at the board—a truly onerous duty. The candidate is examined by the members of the board in turn, for about ten minutes by each, and he is by no means spared. Rejection is very frequent; and in the last examination (for Doctor) the number of the unsuccessful sometimes far exceeds that of their fortunate fellows. You know the importance that the French attach to this *concours* system of theirs. In these public examinations of the young medical student may be seen the principle that has developed the elaborate *concours* for the hospital appointments and professorships. A man is publicly tried before his seniors, his fellows, and his juniors; and, independently of his success or failure, it is considered that every person present is benefited. He soon comes to know those that are before, behind, and with him; and if he is a thoughtful and active man, this information cannot but be highly useful to his country.

Examination in State Medicine at the University of Cambridge.—The next examination for the Cambridge certificates in Sanitary Science will be held in Part I. on Tuesday and Wednesday, June 13 and 14, and in Part II. on Thursday and Friday, June 15 and 16. Candidates must send their names and fees to Professor Liveing, Cambridge, on or before Tuesday, May 30. Anyone whose name is on the Medical Register of the United Kingdom and is twenty-four years of age may be a candidate.

Russian Universities.—The Russian Government is about to organise a university for teaching laws and medicine at Tomsk, one of the principal cities of Siberia, the rarity of practitioners being much felt in that country. As large as Europe, and possessing 6,000,000 inhabitants, it has only one medical practitioner for every 50,000. The Russian Minister has just opened a credit for 1,000,000 fr. in order to found this new establishment, which will then be the eighth university of the empire, viz.:—St. Petersburg, Moscow, Kiew, Kazan, Kharkow, Odessa, and Warsaw. It is also supposed that one will be established at Wilna.—*Gaz. Hebd.*, May 5. [In this enumeration Dorpat has been forgotten.]

GENERAL CORRESPONDENCE.

THE *MEDICAL TIMES AND GAZETTE* AND HASTINGS WATER-SUPPLY.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the *Hastings and St. Leonard's Advertiser* persists in confounding the identity of your Commissioner and myself, and as the chairman of the Water Committee is involved in the same fog, I have addressed the accompanying letter to the editor. The whole affair is of a most trivial nature, but the *Advertiser* seems anxious to work up its mare's nest into a "charge" against your representative. I am, &c., M.D.

[Copy.]

THE "MEDICAL TIMES AND GAZETTE" AND HASTINGS WATER-SUPPLY.

To the Editor of the Hastings and St. Leonard's Advertiser.

Sir,—Since both yourself and the chairman of the Water Committee are apparently labouring under some misconception as to the circumstances of the visit to Hastings of the *Medical Times and Gazette* Commissioner, permit me to say that the individual who, accompanied by "one of the most prominent of the alarmists," called at the Water Works when the Sub-Water Committee was sitting, and who declined the interview—"suggested" at the gate,—was not your contemporary's representative, but

Your obedient Servant, M.D.

St. Leonard's Club, May 13.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, APRIL 28.

Sir WILLIAM JENNER, Bart., K.C.B., M.D., D.C.L., F.R.S., President, in the Chair.

SCLEROTOMY IN GLAUCOMA.

MR. SPENCER WATSON read a paper upon this subject. He remarked that subconjunctival sclerotomy offered certain advantages in the treatment of certain cases of glaucoma as compared with iridectomy. In two cases adduced, the results were sufficiently good to encourage the hope that sclerotomy might prove very useful in many cases, and especially in cases in which there was no time to wait for the preparation of the patient for anæsthetics, as sclerotomy could be performed so quickly and with so little danger to important structures, that it was more easily and safely performed without the aid of anæsthetics than iridectomy could be. It was also much safer in certain cases of chronic glaucoma, in which the iris was atrophied and the pupil surrounded by an extremely narrow rim, which was somewhat drawn backwards, instead of being thrust forwards, as usually happened in acute and subacute cases.

MR. HIGGENS had used sclerotomy in most cases up to a certain time. A staphyloma had often followed—that he considered rather an advantage; but he feared injury to the ciliary region and the risk of sympathetic inflammation. In two cases he had thus lost the eye of the patient.

MR. MACNAMARA said that this operation was rather a new one as yet. Certainly he did not think that a staphyloma was an advantage, for it greatly increased the risk of sympathetic affection. This was not the case as regards iridectomy. The operation had been very successful in certain of Mr. Spencer Watson's cases. Experience would show in what set of cases it was most useful, and when iridectomy should be employed.

GLYCOSURIA FOLLOWING CEREBRO-SPINAL CONCUSSION.

DR. BUZZARD related the case of a tradesman, aged forty-one, who descended from a train one night in January, 1875, alighting on the permanent way instead of on the platform. The depth of this unexpected step was three feet, and he came with great violence on to the soles of his feet. There was a numb feeling in his neck at first, and a week afterwards loss of power in both legs and one arm. Two months after the accident, when Dr. Buzzard saw him in consultation with Mr. Shurlock and Dr. Charles Bennett, there was still some want of power in his extremities, tremulousness of the jaw, thickness of utterance, and a somewhat rapid pulse. These symptoms pointing to a lesion of the medulla oblongata, Dr. Buzzard suggested that sugar would probably be found in the urine; and this was found to be the case on examination. The amount of sugar, which was small at first, increased during the twelve months following. The presence of the sugar was constant, except for a few weeks whilst the patient was on a restricted dietary. The patient made a claim against the railway company, and the cause came on for trial last November, but was settled when he had been examined by the company's medical advisers. At the present time, the muscular symptoms had almost entirely disappeared, but the urine was still saccharine, and, when recently examined by Dr. Pavy, contained nearly nine grains to the ounce. The important question from a medico-legal point of view was of course whether the glycosuria resulted from the fall, or had existed previously. There was no distinct history of illness preceding the fall; and the plaintiff's weight, which when he was first examined was a fair one for his height, decreased by one stone during the first three months that he was under observation. Had this rate of decrease been going on for any length of time, Dr. Buzzard pointed out, the man must have been at quite a recent period a much bigger person than the evidence showed that he had been. Dr. Buzzard attributed the glycosuria to the injury, described the probable mode of its production, and raised the question whether saccharinity of urine of traumatic origin, when it was not a transitory symptom, developed into typical diabetes.

DR. DONKIN said that in this case no examination of the urine had been made before the accident, and consequently any subsequent conclusion must be fallacious. He did not believe that diabetes was due to a neurosis, inasmuch as it yielded so readily to a proper dietetic treatment. Diabetes was rarely produced by an injury to the head.

DR. PAVY thought the malady truly neurotic, and that this case, though it might have been more perfect, went to show that it was so. This was not a case of idiopathic diabetes, which was quite different from glycosuria. In a case of his own, the patient, after a fall on the back of the head, began to have diabetes. Here restricted diet was of no use, as in many other cases. Some do get well with it; some never. In this case there was only glycosuria, and so a chance of improvement.

DR. POORE thought the history of the patient should have been given. He seemed to have recovered a good deal after his claims were settled.

SIR W. JENNER was not satisfied as to the origin of the sugar from the accident. The man had been ailing before, and probably had passed sugar for some time. Dr. Pavy did good service when he said that some cases did not get well on any diet. A case occurred to him. A gentleman called; he had symptoms of diabetes, and was ordered restricted diet; this alarmed him, and he told how his boy had died of diabetes very quickly; yet the father's case was very amenable to treatment. He had seen a case which afterwards was seen by Dr. Donkin, but no dietetic treatment in the world would do it good.

DR. BUZZARD, in reply, said he was unable to give any family history of the patient. Had they known beforehand that he was going to be injured on the railway they would undoubtedly have examined his urine.

PATENT DUCTUS ARTERIOSUS, ATTENDED BY A THRILL AND TWO MURMURS.

DR. HEADLAM GREENHOW related the case of the patient, a girl, aged seventeen, who had been treated in the Middlesex Hospital. Several members of the girl's family had died of phthisis, and she herself had had a cough from childhood, which had, for about a year before her admission to the hospital, become much more severe. During that time, also, she had been losing flesh, had had shortness of breath, and oftentimes hæmoptysis. The catamenia had scarcely appeared. The girl was small and ill-nourished; had a contracted chest, clubbed fingers; pulse 130, and temperature 99·6°. There was marked dulness upon percussion over the upper part of the left lung, and gurgling and pectoriloquy were heard at the same region upon auscultation, with tubular breathing at the right apex; and moist crepitation throughout the remainder of both the lungs. The visible area of the heart's impulse was extended; and in the second, third, and fourth left intercostal spaces, close to the sternum, especially the second, a

purring thrill was heard. In this same space also a harsh systolic bellows murmur was heard, followed by a continuous humming murmur, which was audible throughout the remainder of the period of the heart's action until the bellows murmur recurred. The patient's phthisical symptoms abated somewhat, and she then left the hospital; but was readmitted a fortnight subsequently, with crepitation throughout the lungs, and shortly thereafter died. At the necropsy, the left lung was everywhere adherent to the parietal pleura; and in its upper lobe were numerous cavities, evidently of old date; elsewhere there was lobular consolidation. A large mass of indurated glands closely surrounded the pulmonary artery and arch of the aorta. The upper part of the right lung was consolidated. The right ventricle of the heart was enlarged, and its walls were thick and firm. The right auricle was also dilated; the foramen ovale was closed. In the pulmonary artery, close to its bifurcation, was a small orifice, of the size of a crowquill, its margin being almost surrounded by a valve-like fold of the lining membrane. This was the aperture of a patent ductus arteriosus, about a quarter of an inch in length, that opened into the lower wall of the aorta, just beyond the left subclavian artery. The aortic opening was about double the size of the other opening, and was also guarded by a reduplication of the lining membrane. The left cavities of the heart were natural; all the valves were normal. The aorta was somewhat constricted just below the subclavian artery. Dr. Greenhow remarked that it had been difficult, during the patient's lifetime, to form any conclusive opinion as to the exact cause of the thrill and the two murmurs, though they were (from their situation) evidently connected with the pulmonary artery, but not with narrowing of the pulmonary orifice. It is true both aortic and pulmonary orifices were smaller than natural; but they maintained their normal ratio to each other, and also probably to the diminutive stature and imperfect development of the patient. Dr. Greenhow had thought the thrill and murmur were due to pressure upon and displacement of the pulmonary artery, resulting from the chronic lung-disease. As regarded the humming sound, he could form no satisfactory theory during life; but it appeared now to have been probably produced by the passage of blood from the aorta to the pulmonary artery through the open ductus, and over the semilunar valve-like folds which surrounded its extremities. That the stream took that direction, he thought was evident from the absence of cyanosis, and from the larger size and funnel shape of the aortic orifice of the duct. Dr. Peacock had seen the specimen, and had suggested that the ductus arteriosus might have been prevented from closing by the constriction of the aorta beyond the left subclavian artery; in which situation the vessel, in such cases, was sometimes found entirely obstructed.

PATHOLOGICAL SOCIETY.

Tuesday, May 2.

Mr. George Pollock, F.R.C.S., President, in the Chair.

Movable and Displaced Kidneys.

Dr. Wickham Legg read a report from the Committee appointed to inquire into the subject of movable and displaced kidneys. After dealing with the question of displacement without mobility, the report went on to discuss the causes of undue mobility of the kidney, which to some degree was by no means unfrequent. One of two conditions usually prevails: either the organ lies loose from attachment to peritoneum, so as to admit of being moved a certain extent in any direction; or else it is completely invested by peritoneum, which passes over it to form a meso-nephron of greater or less length. The report concluded by reference to a number of cases fully described, in which one or other of these conditions was discovered post-mortem. The report was signed by Drs. Hare, Bristowe, Wilks, John Williams, and Legg.

Dr. Wilks thought the result of the investigation very satisfactory, especially on account of the careful post-mortem observations recorded in the report. He was the more anxious to state this opinion because he confessed to having formerly been sceptical as to the existence of movable kidney other than as a clinical observation. The cases in which it was usually found, clinically, were young hysterical females; and although he would like to have heard of cases in which observation during life was confirmed after death, yet the number of facts collected showed that such a condition as movable kidney could exist.

Dr. Hare pointed out that one or two of the cases related in the report were instances in which there was evidence of floating kidney during life, and in which the autopsy revealed the condition corresponding to this.

The President also expressed his satisfaction at the report, for, like Dr. Wilks, he had previously been sceptical in the matter. He proposed a vote of thanks to the Committee, which was carried by acclamation.

The Histology of Leprosy.

Mr. Wagstaffe read for Dr. V. Carter a communication on the above-named subject. The present note dealt with a case of confirmed leprosy, in which there was an acute outbreak of nodules upon the depressed and livid patches left by a previous eruption. Microscopical examination of a portion of excised skin bearing these nodules showed at their margins (*a*) copious cell-infiltration beneath the cutis; (*b*) numerous large granular and clustered brown and black pigmented masses; (*c*) orange-tinted granules; (*d*) groups of micrococci in the lymphatics, which were, moreover, much dilated. The micrococci occurred in great abundance, and were to be regarded as an essential feature of the affection; it was interesting to note how in these cases a new leprous eruption may arise from the relics of an older eruption.

Heart with a Double Mitral Valve.

Dr. Greenfield exhibited a specimen, which he had taken from a male, aged twenty-eight years, who died from acute myelitis. On viewing the valves from above, there were seen to be two orifices, and on laying open the ventricle the mitral valve was divided into two portions; one, the smaller, receiving its chordæ tendineæ from the anterior papillary muscle, and the larger from the posterior. It was apparently due to some abnormal mode of development. No morbid sounds were audible. The heart was a large one, weighing fifteen ounces, but the valve acted perfectly. He could suggest no hypothesis as to the mode of development.

Dr. Peacock confessed his inability to throw any light upon the developmental condition. The specimen was, so far as he knew, a unique one of its kind.

Malformation of the Heart.

Dr. Peacock showed a specimen. There existed great constriction at the point of union between the sinus and infundibular portion of the right ventricle; only two valves at the origin of the pulmonary artery, and smallness of the orifice and trunk of that vessel; aperture in the septum of the ventricles, and aorta arising chiefly from the right ventricle; foramen ovale and ductus arteriosus closed. The specimen was removed from a markedly cyanotic child, who died in St. Thomas's Hospital of measles. There was no murmur at the heart till very shortly before the death of the child, and the temperature was seldom at all below the normal standard, and became very high—104·9°—during the last illness.

Multiple Ulcer of the Stomach.

Dr. Greenfield showed a specimen of the above, from a female who had suffered from several attacks of hæmatemesis, for one of which she was admitted into St. Thomas's Hospital. She remained in the hospital for about three weeks, without recurrence of hæmorrhage, but died from perforation of an ulcer in the cæcum. The stomach presented five ulcers situated on the posterior wall, in the neighbourhood of the lesser curvature—two of them had cicatrised, and there was much thickening of the walls of the stomach, which was contracted in an hour-glass manner; the other three were open. Dr. Greenfield had avoided entering upon the subject of the pathology of gastric ulcer. The specimen simply showed that some of the ulcers were of much older date than the others. It also bore out the fact of their occurrence upon the posterior surface near the lesser curvature. The cæcal ulcer was of the kind met with as a result of the accumulation of fæces.

Perforating Ulcer of the Stomach.

Mr. Air showed a specimen, taken from a male subject, who had suffered from dyspeptic symptoms for about six years, and from vomiting about a month before death, which occurred somewhat suddenly with symptoms of peritonitis.

Aneurism of the Arteria Innominata, and one of the Aorta; the latter opening into the Trachea.

Dr. Peacock showed a specimen of the above from a male, aged thirty-six, formerly in the Marines, but latterly a

gardener, who was admitted into the Victoria-park Hospital on November 4, 1875. He had served for only a short time in the Marines, and was invalided from the service ten years before, for an injury of the head, followed by erysipelas and abscess. After his recovery he enjoyed good health till three months before his admission, when he had a bilious attack, accompanied by jaundice, and took cold while under the influence of medicine. He then suffered from cough, expectoration, and shortness of breath, with pain in the chest; and these symptoms continued till the time of his admission into the hospital. He then had pain in the left side, extending across the chest to the right shoulder; his breathing was short, and he had a hollow voice, and a husky, abortive cough. There was an obvious pulsation above and behind the upper part of the sternum, and a harsh systolic murmur was there heard, as also in the carotid, and to the left of the spine behind. There was also increased dulness at the upper part of the sternum, and a double murmur at the base of the heart. The left pulse was smaller than the right, and the right pulse had a decidedly regurgitant character. There was some stridor with the respiration, especially on the left side. On January 10, 1876, there were some slight streaks of blood in the expectoration, and soon after he brought up a large quantity of blood, and immediately died. An aneurismal dilatation, about the size of a hen's egg, occupied the whole of the arteria innominata, and compressed the branches of the descending cava, and the trunk and recurrent branch of the right pneumogastric nerve. Immediately to the left of the orifice of the arteria innominata there was a circular opening sufficiently large to admit the end of the little finger, which opened into a sac about the size of a chestnut. This had compressed the lower end of the trachea above its bifurcation, and had opened into that passage. The ascending and transverse portions of the aorta were dilated, and the coats of the vessel were rough and very much thickened. The aortic valves were incompetent. The heart was somewhat large, weighing about twelve ounces, and the left ventricle was hypertrophied and dilated.

Lardaceous Disease.

Dr. Hilton Fagge brought forward some specimens of lardaceous disease which presented some peculiarities in the way of secondary degeneration. He commenced by referring to a case observed by Dr. Moxon in 1869, in which a cirrhotic and lardaceous liver from a syphilitic patient exhibited several cheesy patches on the surface, at first taken for gummata, but proving, on microscopical examination, to be localised patches of lardaceous material which had undergone a further fatty change. From that time Dr. Fagge had not seen any similar appearances until last year, when, in examining a greatly enlarged lardaceous liver weighing 163 ounces from the body of a man twenty-two years of age, who had suffered from spinal disease with abscess from the age of four, he found similar localised, opaque, fatty, and calcareous patches, which by their pallor contrasted with the reddish tint of the non-degenerate lardaceous material. Quite recently he met with a third case. The patient was a man thirty-two years of age, suffering from albuminuria, dropsy, and diarrhœa. There were some soft nodes beneath the pericranium, and some gummata in the liver, which was also slightly lardaceous, as well as the right supra-renal capsule, intestine, and kidneys. The spleen weighed ten ounces and a half, and presented the "sago" appearance, with some half a dozen whitish-yellow spots or patches of a wedge shape, and seated immediately beneath the capsule. These patches were found to be patches of lardaceous material in a state of fatty change. Their infarct-like form was suggestive of their origin in arterial obstruction; and, as in the other two cases, these patches occurred on the surface of the liver, he concluded that it was a degenerative change set up in the new material by arrested circulation. The recognition of this condition might throw light upon the frequent association of fatty degeneration of the kidney with lardaceous disease. He took this opportunity of strengthening the remarks he made in the course of the debate on syphilis with regard to lardaceous disease occurring only in subjects of constitutional syphilis, or in cases of chronic suppuration. Mr. Lancaster had examined the post-mortem records of Guy's Hospital for some time back at his (Dr. Fagge's) request, and reported that during that period there were 227 examples of lardaceous disease. Of this number 141 occurred in patients who had suffered from chronic suppuration, without evidence of syphilis (sixty being cases of phthisis); in five others there was suppuration, but mostly of a less chronic course (one being a case of stricture with suppurative nephritis, one tubercular peritonitis, one deafness with otorrhœa, one abscess of testicle). In seventy-one cases there was satisfactory (post-mortem or historical) evidence of syphilis, this evidence being of varying degrees of completeness. To these might be added three in which there was a suspicion of syphilis; there were six cases in which there was no such evidence, and two others in which death was due to pyæmia and pneumonia respectively. Dr. Fagge also related facts with the endeavour to show the length of time for which it was necessary for suppuration to have existed in order to produce lardaceous disease, and quoted several cases in point, the one of briefest duration being three months and a half from onset of suppuration, death occurring from diphtheria, and the lardaceous change being very small in amount.

Dr. Fagge also showed a lardaceous tumour removed from the abdomen. It occurred in a patient under the care of Dr. Moxon, and was seated in the left hypochondriac region. It was of an oval form, and weighed thirty-six ounces. The spleen weighed three ounces and a half, and presented scattered lardaceous nodules. The kidneys and intestines were also lardaceous. The tumour was of a yellowish colour, and the application of iodine brought into view numbers of lardaceous nodules scattered throughout the substance of the tumour. He was inclined to adopt the suggestion of Dr. Goodhart—that it was, in fact, a greatly enlarged lardaceous spleniculus. Microscopically, it was composed of bands of fibrous tissue intersecting patches of lardaceous material.

Dr. Douglas Powell thought there were other causes for the production of lardaceous disease besides suppuration and syphilis. In a large proportion of fatal cases of phthisis, irrespective of chronicity or of amount of suppuration, lardaceous disease was met with, especially of the spleen. On a rough estimate, he should say that one out of every five cases of phthisis presented the "sago spleen." There must be some other factor in the production of this change. If it were always due to chronic suppuration, it ought to be met with in all cases of chronic phthisis.

Dr. Green said that evidently the two causes named by Dr. Fagge were the most common, although there might possibly be others. He inquired if Dr. Fagge's researches bore out the statement that the occurrence of lardaceous disease in syphilis was associated with suppuration. With regard to the localised patches of degeneration of the lardaceous material, he inquired whether in these parts the lardaceous material was in greater excess than elsewhere. He could understand vascular obstruction being produced by excessive lardaceous degeneration. He had seen fatty changes in lardaceous material, although not in the form of localised patches.

Dr. Wilks also believed that the lardaceous change underwent fatty degeneration.

Dr. Greenfield had seen an example of lardaceous liver in a lad eighteen years of age, in which there were in addition two or three calcareous masses. The kidney and spleen were also waxy, and in this case there was clear evidence of congenital syphilis. The localised wedge-shaped patches of degeneration might have been produced by obliteration of the vessels, due to syphilitic disease of their coats. In a specimen he exhibited during the present session, in which there were syphilitic gummata in the kidney, spleen, and liver, the spleen and kidney presented some infarcts in process of fatty degeneration, the vessels leading to them being thickened and degenerated. Before, then, accepting the view that the localised patches of degeneration were due to obliteration of vessels by the lardaceous change, the question of syphilis must be disproved. One of Dr. Fagge's cases was syphilitic. Most cases of advanced lardaceous disease showed patches of fatty degeneration, which he regarded as the final regressive change in the slow process of transformation of the albuminous tissues of which waxy degeneration was one stage.

Dr. Fagge, in reply, said that he had thought that it was usually the parts between the lardaceous areas that underwent fatty changes. There was no excessive amount of lardaceous material in the localised opaque patches he had described. As to the practical importance of recognising the causes of lardaceous disease, he related the case of a man who came under his care with a soft elastic tumour of the liver and albuminuria. The case was thought to be one of syphilis, but the tumour was tapped, and twenty or thirty ounces of pus withdrawn. The patient had contracted dysentery in India, and no doubt this led to the formation of an hepatic abscess,

and that to lardaceous disease as evidenced by the albuminuria. Lardaceous disease might be due to other causes, but the very large proportion of cases occurring in Guy's Hospital during twenty years were, he had shown, caused by suppuration and syphilis. In the course of this investigation, he might remark, he had found, out of 101 cases of syphilis, but very few indeed in which aneurism or fibroid disease of the heart was met with.

Dissecting Varix of the Femoral Vein.

Dr. Fagge then exhibited a specimen of dissecting varix of the femoral vein, no doubt the result of an old attack of thrombosis. He also exhibited the lungs of two children presenting obsolete pyæmic abscesses. Each child died of acute pyæmia, and although there was no history pointing to a previous attack, yet the position of the wedge-shaped cheesy patches on the surface of the posterior lobes of the lungs was, he thought, sufficient to justify their being attributed to that source.

Pyæmic Symptoms following Phlegmasia Dolens.

The President related the case of a patient who, after an attack of phlegmasia dolens, suffered from pyæmic symptoms. She was ill for three months, and had evidence of pulmonary affection. She eventually recovered.

Larynx from a Case of Croup.

Dr. Squire exhibited a larynx from a case of croup in a child fourteen months of age. The case clinically differed from sthenic croup in its insidious onset, but there were no other cases in the house, and there was absence of pharyngeal exudation and glandular enlargement in the neck. The larynx contained some detached shreds of membrane.

NEW INVENTIONS AND IMPROVEMENTS.

SMALL CUPPING INSTRUMENT.

Dr. F. J. Brown writes to us as follows;—Messrs. Arnold and Sons have designed and made an infant's cupping instrument with three lancets, for the purpose of abstracting blood rapidly from young children suffering from croup. I never lose a child when I bleed it early in the disease, but I cannot always find a vein in infants of one or two years. Leeches draw blood too slowly; effectual relief can only be given by rapid abstraction of blood, such as may be effected by venesection or cupping. If the instrument be applied between the shoulders, or to the nape of the neck, the scars will not be an eyesore in after-life.

OBITUARY.

ANDREW WYNTER, M.D. St. And., M.R.C.P. Lond.

We much regret having to record that Dr. Wynter died at his residence, Cheshunt Lodge, Chiswick, on the 12th inst., at the comparatively early age of fifty-six. Dr. Wynter was born in Bristol in 1819; obtained his medical education at St. George's Hospital; took the M.D. degree at the University of St. Andrew in 1853, and in 1861 became a member of the Royal College of Physicians of London. Besides working hard at his profession, he was well known as a *littérateur*. He was for some years the editor of the *British Medical Journal;* was, we believe, a constant contributor to *Once a Week* when that paper was first established; and has published some volumes of essays on various social and medical subjects, which had first appeared in the *Quarterly*, the *Edinburgh*, and other high-class reviews and journals. These books—his "Curiosities of Civilisation," "Our Social Bees," "Curiosities of Toil," "Peeps into the Human Hive," etc.—have doubtless afforded entertainment and instruction to an extensive circle of readers, and some passed through several editions; but his best and most widely read essays are, perhaps, one on the "Progress of Medicine and Surgery," which was first published in the *Edinburgh Review* in 1872, and several on "Lunatic Asylums," on the "Treatment of the Insane," and on "Brain Difficulties." Dr. Wynter's most strictly medical work was his last—a volume, published in 1875, entitled "The Border-Lands of Insanity, and other Allied Papers." He had long given great attention to the subject of insanity, and held very decided views on the paramount importance and value of non-restraint in the treatment of the insane.

MEDICAL NEWS.

Royal College of Physicians of London.—The following gentlemen were admitted Fellows on May 15, viz.:—

Anthony, John, M.D., Birmingham.
Barry, John O'Brien Milner, M.D., Tunbridge Wells.
Bateman, Frederic, M.D., Norwich.
Brodie, George Bernard, M.D., 56, Curzon-street, W.
Brunton, Thomas Lauder, M.D., 23, Somerset-street, W.
Cavafy, John, M.D., 2, Upper Berkeley-street, W.
Hollis, William Ainslie, M.D., Brighton.
Paine, William Henry, M.D., Stroud.
Woodman, William Bathurst, M.D., 6, Christopher-street, E.C.
Yeo, Isaac Burney, M.D., 44, Hertford-street, W.

King and Queen's College of Physicians in Ireland.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, May 9, 10, and 11, the following candidates obtained the licence to practise Medicine:—

Anderson, Charles.
Canton, Thomas.
Ford, Arthur Vernon.
Fox, Matthew.
Gunning, Robert Cardwell.
Kirkpatrick, Henry Ivers.
McCarthy, George Francis.
Ryan, John.
Searancke, George.
Twigg, George Despard.
Warnock, Hugh.
Winn, John.

The licence to practise Midwifery—

Anderson, Charles.
Blake, Richard Marlay.
Canton, Thomas.
Corcoran, Laurence.
Fox, Matthew.
Gunning, Robert Cardwell.
Kirkpatrick, Henry Ivers.
McCarthy, George Francis.
Ryan, John.
Searancke, George.
Twigg, George Despard.
Warnock, Hugh.
Winn, John.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst., viz:—

Berridge, William Alfred, Upholland, Lancashire, student of the London Hospital.
Brumell, Morpeth, Northumberland, of St. Bartholomew's Hospital.
Chadwick, Walter Sam, Wakefield, of the Leeds School.
Clubbe, Charles Percy Barlee, Hull, of St. Bartholomew's Hospital.
Coley, Frederic Collins, Blackheath, of Guy's Hospital.
Cook, Joseph Belcher, Nottingham-place, Regent's-park, of Charing-cross Hospital.
Denton, Arthur Henry, Sheffield, of the Edinburgh School.
Emmerson, John Bolton, Newcastle-on-Tyne, of the Newcastle School.
Harshy, William Rosser, Tredegar, Mon., of King's College.
Henwood, John Davey, L.S.A., Milbrook, Cornwall, of Charing-cross Hospital.
Hewett, Augustus, L.S.A., Twickenham, of St. Bartholomew's Hospital.
Johnstone, Charles Richard, L.S.A., Haxey, Lincolnshire, of St. Mary's Hospital.
Lee, Charles George, Newcastle-on-Tyne, of Guy's Hospital.
Makuna, Manikji Dosabhai, Bombay.
Moore, Charles Arthur, L.S.A., Thetford, Norfolk, of St. Bartholomew's Hospital.
Pearce, Arthur, L.S.A., Kingsbridge, Devon, of St. Bartholomew's Hospital.
Porter, Thomas Lee, L.S.A., Exeter, of Guy's Hospital.
Rodwell, Edward Manby, L.S.A., Loddon, Norwich, of Charing-cross Hospital.
Seymour, Charles, M.B. Aberd., L.S.A., Odiham, Hants, of Guy's Hospital.
Stamp, William Daniel, Honiton, Devon, of Guy's Hospital.
Stark, Mark Dugald, M.B. Toronto, Canada, of St. Thomas's Hospital.
Thomas, John Hannibal, L.R.C.P. Edin., St. Ives, Cornwall, of University College.
Tyrrell, Walter, Exeter, St. Thomas's Hospital.
Upton, Alfred, Petworth, Sussex, of St. Bartholomew's Hospital.
Welchman, Henry Palmer, Lichfield, of Guy's Hospital.
Young, Percy Gordon, St. Stephen's-square, W., of St. Mary's Hospital.

Three candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months.

The following gentlemen were admitted on the 17th inst., viz.:—

Anderson, Charles Morton, Moville, Donegal, student of University College.
Batchelor, Henry Thomas, L.R.C.P. Lond., L.S.A., Bancroft-road, E., of the London Hospital.
Coates, Harcourt, Salisbury, of University College.
Cooper, Peter, Farningham, Kent, of University College.

Dinnen, William Thomas, L.K.Q.C.P.I., Holyhead, of St. Bartholomew's Hospital.
Drewitt, Frederic George Dawtrey, B.A. Oxon., Arundel, Sussex, of St. George's Hospital.
Essex, James Rowland, Pontypool, Mon., of University College.
Feltham, William Parsons, L.S.A., Portsea, Hants, of St. Bartholomew's Hospital.
Jones, John Day, L.R.C.P. Edin., Great Torrington, Devon, of University College.
Lush, John Selfe, L.S.A., West Lavington, Wilts, of St. Thomas's Hospital.
Morgan, William, L.S.A., Swansea, of St. Thomas's Hospital.
Page, William Henry, Cheltenham, of St. Thomas's Hospital.
Patron, Alfred, M.D. Montp., Claoham, of the Montpelier School.
Robinson, George Winsor, Faversham, of St. Thomas's Hospital.
Roughton, James Woolley, Kettering, of St. Bartholomew's Hospital.
Walker, David Francis, of Emsworth, Hants, of Guy's Hospital.
Willey, John Mason, Leicester, of St. Bartholomew's Hospital.

Twelve candidates were rejected. The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the seventy-four candidates who presented themselves for examination on this occasion, viz.:—1. Describe the structures which would be divided by a transverse incision extending through the foot about an inch in front of the ankle-joint. 2. Give the position and relations of the stomach; and describe the operation for gastrotomy. 3. Describe the pathology of the different forms of spontaneous gangrene of a limb. 4. How do ligature, acupressure, and torsion act in arresting hæmorrhage? and what are their relative advantages under different circumstances? 5. Describe the different forms of talipes; and state what muscles are specially concerned in the production of each. 6. What are the symptoms indicating the presence of a foreign body in the trachea? Describe the probable consequences of its remaining there; and state what steps you would take to give relief. The following were the questions on the Principles and Practice of Medicine, viz.:—1. Describe a case of rheumatic fever, giving its symptoms and sequelæ, with the post-mortem appearances in a fatal case. 2. What are the various conditions of the kidneys in diseases characterised by albuminuria? 3. What is the constitution and average dose of the following pharmacopœial preparations:—Glycerinum acidi tannici, linimentum camphoræ, tinctura chloroformi composita, infusum gentianæ compositum, mistura ferri composita, mistura cretæ, pilula plumbi cum opio, and pilula rhei composita? and give a Latin prescription in full for an adult suffering from chronic bronchitis.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 11:—

Bailey, Henry Frederick, William-street, N.W.
Ferrier, John Christian, Kingston, Ireland.
Hewett, Augustus, Cambridge-park, Twickenham.
Morris, John Henry, Salford.
Pearce, Arthur, Kingsbridge, Devon.
Ryder, Henry John, Kennington-park-road.
Seymour, Charles, Odiham, Hants.
Shoolbred, Wm. Andrew, Wolverhampton.
Smyth, Albert Charles Butler, Ospringe-road, Kentish Town.

The following gentlemen also on the same day passed their primary professional examination:—

Brown, John, Charing-cross Hospital.
Mansell, Edward Rosser, Guy's Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

Marlborough House.—The Prince of Wales has been pleased to appoint Surgeon-General Sir Joseph Fayrer, K.C.S.I., M.D., to be an Honorary Physician to his Royal Highness.

Simon, John, Esq., Medical Officer of the Privy Council, and of the Local Government Board, to be an ordinary member of the Civil Division of the Third Class, or a Companion of the Most Honourable Order of the Bath.

Admiralty.—William Hogarth Adam, Esq., to be Fleet Surgeon in her Majesty's Fleet, with seniority of May 2. Henry Charles Woods, Surgeon, M.D., to be Staff Surgeon in her Majesty's Fleet.

War Office.—Surgeon-Major Joseph William Carter Neynoe Murphy retires upon temporary half-pay. Surgeons Robert Batho, William Ironside, M.D., Francis Patrick Staples, William Hill Climo, M.D., William James Wilson, M.D., Alfred Frederick Stafford Clarke, M.D., Augustus Robinson Hall, and Edward Footner, M.B., to be Surgeons-Major.

BIRTHS.

Masterman.—On May 6, at The Elms, Ixworth, Suffolk, the wife of Dr. Masterman, of a son.

Mayou.—On May 4, at Monmouth, the wife of George Mayou, M.D., of a son.

Morris.—On May 4, the wife of Henry Morris, late Staff Surgeon 6th Royals, of a son.

Plaskitt.—On May 12, at 25, Chapel-street, Belgrave-square, the wife of Joshua Plaskitt, F.R.C.S., of a daughter.

MARRIAGES.

Burgess—Lynch.—On May 16, at St. John's, The Triangle, Hackney, Dr. Burgess, of Bethnal-green-road, to Kate, only daughter of the late Charles Lynch, Esq., of Dover, Civil Department Royal Engineers.

Forsyth—Delmege.—On April 15, at All Saints, Point-de-Galle, A. B. Forsyth, Esq., youngest son of the Rev. James Forsyth, D.D., of St. Nicholas, Aberdeen, to Frances Elizabeth, third daughter of the late C. C. J. Delmege, M.D., Staff Surgeon-Major.

Frederics—Rogers.—On May 6, at St. Michael's, Stockwell, Arthur Frederics to Florence Amelia, daughter of the late H. J. Rogers, M.D. and F.R.S.

Lush—Scholfield.—On May 6, at the Church of St. Mary Magdalen, St. Leonard's-on-the-Sea, William J. H. Lush, F.L.S., M.R.C.P., etc., of Fyfield, Andover, to Katherine Martha Scholfield, youngest daughter of the late John Scholfield, Esq., of Faxfleet Hall, Yorkshire.

Slocombe—Cole.—On May 11, at St. Matthias, Richmond-hill, Edward Richard Slocombe, younger son of the late Wm. Slocombe, Esq., of Reading, to Julia Elizabeth Cole, stepdaughter of Augustus K. Maybury, M.D., of Holly Lodge, Richmond.

Walker—Pern.—On May 11, at St. Augustine's Church, Highbury Newpark, Wm. Bevan, youngest son of the late Charles Walker, M.D., Physician to St. Thomas's Hospital, to Emily Frances, daughter of the late W. Pern, Esq., of Crawley, Hants.

DEATHS.

Carmichael, Mary Elizabeth, only daughter of William Carmichael, M.D., on May 9, at 40, Inverleith-row, Edinburgh.

Cooper, Nathan, M.R.C.S. Eng., L.A.C., etc., on May 12, at Mansfield, Notts, aged 72.

Joy, John, Esq., M.R.C.S. Eng., on May 9, at 78, Seymour-street, Hyde-park, W., in his 66th year.

Kerin, Frederick George, Surgeon-Major 2nd Life Guards, on May 4, at Windsor, aged 50.

Leigh, Henry Thomas, surgeon, of Chiswick, on May 8, at Brighton, aged 69.

Lewis, Charlotte Diana, wife of Dr. James Lewis, and daughter of the late Sir Robert Lynch-Blosse, Bart., of Gabalva, Glamorganshire, on May 6, at St. Germains, Oxford, aged 65.

Lyons, Eliza Grace, wife of Surgeon-Major R. T. Lyons, of the Bengal Army, daughter of Sir John Rose Cormack, M.D., of Paris, on April 14, of puerperal fever, at Midnapore, Lower Bengal.

Macturk, Beatrice Rishton, widow of William Macturk, M.D., of Bradford, and daughter of the late Duncan Macdougall, of Ardentrive, Argyleshire, on May 12, at Cranby-terrace, Harrogate, aged 70.

Unwin, John R., F.R.C.S., late of Brixton, Surrey, on May 15, at Fernlea, Surbiton-hill, in his 66th year.

Westmacott, Martha Hedges Graham, wife of Dr. John Gnise Westmacott, on May 12, at 19, St. Mary's-terrace, Paddington, aged 50.

Wilson, Edward Horatio, eldest son of the late Dr. E. T. Wilson, on May 7, at Bath, aged 32.

Wynter, Andrew, M.D., on May 12, at Chestnut Lodge, Grove-park, Chiswick, aged 56.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Ashton-under-Lyne District Infirmary.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, not later than May 27.

Bournemouth General Dispensary.—House-Surgeon. Candidates must possess a qualification both in medicine and surgery and be registered. Salary £120, with furnished apartments, coals, gas, and attendance. Testimonials, etc., to R. T. Hearn, Esq., on or before June 15.

Brighton and Hove Lying-in Institution, Hospital, and Dispensary for the Diseases of Women and Children.—House-Surgeon. Candidates must be Members of the Royal College of Surgeons of Great Britain or Ireland, and Licentiates of the Royal College of Physicians, or of the Society of Apothecaries, London. Testimonials to the Chairman of the Committee of Management, 76, West-street, Brighton, on or before May 25.

Cancer Hospital, London.—Surgeon and Assistant-Surgeon to Out-patients. Candidates must be registered Members of the Royal College of Surgeons of England. Applications and testimonials to the Chairman, 167, Piccadilly, on or before May 20.

Charing-cross Hospital.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Diplomas and testimonials of qualification to Henry Woolcott, Secretary, on or before May 30.

Keighley Local Board of Health.—Medical Officer of Health. Candidates must be legally qualified medical practitioners. Applications, endorsed "Medical Officer of Health," to the Chairman of the Sanitary Committee, Town's Office, Keighley, not later than May 23.

Knighton Union.—Medical Officer. Candidates must be legally qualified medical practitioners. Applications and testimonials to Edwin Hooper Deacon, Clerk to the Guardians, not later than June 1.

London Hospital, Whitechapel-road, E.—Fifth Assistant-Physician. Applications, with testimonials, must be sent to the Hospital, on or before May 29. Candidates must be Members of the Royal College of Physicians of London, and are required to attend personally at the Hospital on May 30, at 2 o'clock precisely.

Northampton County Lunatic Asylum.—Assistant Medical Officer. Candidates must hold a medical and surgical diploma, and be duly registered. Salary £120 per annum, with board, washing, and furnished apartments. Testimonials to the Medical Superintendent, Berry Wood, near Northampton, on or before May 26.

Queen's Hospital, Birmingham.—Two House-Surgeons. Salary £50 per annum, with board and lodging. Original testimonials and certificates of registration must be sent to the Secretary, on or before May 26.

Royal Infirmary, Liverpool.—Medical Superintendent. Candidates must be married. The Committee are desirous of engaging a gentleman whose wife could undertake the office of Matron. Applications, stating ages, number of family, etc., must be sent in on or before May 20.

Tiverton Infirmary and Dispensary.—House-Surgeon and Dispenser. Salary £100 a year with furnished apartments, coals, gas, and attendance. Applications and testimonials to the Hon. Secretary, Tiverton.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bingham Union.—Mr. Alfred C. Taylor has resigned the South District; area 15,035; population 2387; salary £22 per annuum.

Chelmsford Union.—Dr. F. E. Rocho has resigned the Third District; area 6414; population 3598; salary £63 per annum.

Penzance Union.—The Fourth District is vacant; area 13,267; population 9392; salary £35 per annum.

Portsea Island Union.—Mr. D. W. Williams has resigned the Workhouse; salary £150 per annum.

APPOINTMENTS.

Knaresborough Union.—John F. Hartley, M.R.C.S. Eng., B.M., to the Harrogate District.

Southmolton Union.—Robt. H. S. Spicer, M.D. St. And., L.R.C.P. Edin., M.R.C.S. Eng., to the Third District.

Warwick Union.—W. A. Parsons, L.R.C.P. Edin., M.R.C.S. Eng., to the Workhouse.

Ophthalmic Surgery.—The following is the syllabus of the course of six lectures to be delivered by Professor Brudenell Carter, F.R.C.S., in the theatre of the Royal College of Surgeons, commencing June 5, viz.:—Lecture I., June 5, On Ophthalmology in its relation to General Surgery; Lecture II., June 7, On Glaucoma; Lecture III., June 9, On Iridectomy and its Uses; Lecture IV., June 12, On Iritis and Sympathetic Ophthalmia; Lecture V., June 14, On Cataract Extraction; Lecture VI., June 16, On Strabismus.

The Paris Night Service.—It has been found that between January 9 (when this service was first set on foot) and May 1 there have been 1180 persons who have demanded the assistance of the practitioners who have registered their names at the Prefecture. Out of this considerable number only nine persons have died before assistance could reach them. A sum of 10 fr., which is recoverable from solvent persons, is allowed for each night-call; and as the reimbursement has been effected pretty regularly up to the present time, the 10,000 fr. advanced by the Municipality to meet the expenses of this service is far from being exhausted.—*Gaz. Méd.*, May 13. [Paris, a city to which such numbers of foreigners resort, usually in the pursuit of pleasure, is eminently suited for this experiment.]

West Kent Medico-Chirurgical Society.—The last meeting of the twentieth session was held at the Royal Kent Dispensary, Greenwich-road, on Friday evening, May 5. In accordance with Rule 15, three members were elected to audit the treasurer's accounts. The following cases were brought forward for discussion:—Dr. W. Carr, a case of General Dropsy (Bright's disease) cured by puncturing the legs, and diuretics, illustrating the doctrine of elimination. Dr. Ralph Gooding, a case of Prostatic Disease. Mr. J. Prior Purvis, a case of severe Trifacial Neuralgia of long standing successfully treated by the continuous galvanic current. The annual dinner will be held on Wednesday, June 28, at the Ship Hotel, Greenwich, at 6 for 6.30 p.m., the President, Dr. J. N. Miller in the chair; tickets, including wine and coffee, 15s.

Society of Medical Officers of Health.—The next meeting, being the last of the session, will be held on Friday, May 19, at 7.30 p.m. The report of the Council on the following subjects will be read:—1. The notice of motion given by Dr. Tidy, "That the resolution respecting the Aylesbury Dairy Company, passed at the meeting of the Society of April 22, authorising experiments to be made at their dairy, be rescinded. 2. The advisability of continuing to issue, in the name of the Society, the monthly reports of analyses of the waters supplied by the metropolitan water companies. 3. The proposals by Dr. Dudfield for amending the bye-laws regulating the slaughter-houses of the metropolis. Dr. Corfield will draw attention to the ruling in the case of Wilson *v.* Hatton, which involves the question as to whether a tenant under an agreement to take a house can repudiate the contract on account of defective sanitary condition. Dr. Tripe will propose some amendments in the law relating to water-supply and water-supply apparatus in metropolitan and extra metropolitan districts.

The Swiss Universities.—The three Universities of Zürich, Bern, and Basel, according to the registers, contained, during the winter session of 1875-76, 831 students, viz.:—330 at Zürich, 299 at Bern (including the Veterinary School), and 202 at Basel. Of this number 175 were foreigners, viz.:—54 Germans, 52 Russians, 24 Austrians, 15 Americans, 12 Greeks or Turks, 7 English, 4 French, 2 Italians, 1 Belgian, 1 Spaniard, 1 Dutchman, and 1 Asiatic. At Bern and Zürich there were 63 female students attending the lectures, only 2 of these being Swiss. Of the others, 39 were Russians, 8 Americans, 5 Austrians, 4 Germans, 3 Servians, 1 French, and 1 English. The teachers of these three Universities are 207 in number, viz.:—101 professors, 37 extraordinary professors, and 69 *privat-docenten.*—*Progrès Méd.*, May 6.

The Seaside for Hip-Joint Disease.—M. Cazin read a paper at the Société de Chirurgie, giving an account of the results obtained in hip-joint disease at the hospital at Berk, near Boulogne. During the years 1869-76 there were admitted 212 cases of this disease, of which number eighty were in a state of suppuration. No surgical operation was performed, the treatment consisting only in expectation, the limb being kept in a state of immobility by means of a silicated bandage or a modification of Bonnet's splint. The results obtained in the eighty cases of suppurating hip-joint disease were as follows:—Cured, forty-four; improved, six; incurable, twenty; and fatal, ten. In five of the ten fatal cases albuminuria existed on admission, the others dying either from pulmonary phthisis or from exhaustion produced by the suppuration. M. Cazin believes that hip-joint disease is a more curable affection in the poor than in the rich. During the acute and febrile stage of the disease the seaside is unsuitable in these cases.—*Gaz. Hebd.*, May 12.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Medical Adviser to a School.—Facts have proved that in schools lighted by windows on both sides children suffer more or less from injured vision; and so important has the subject been considered in Germany, that a law has been passed forbidding bilateral windows in schools. In Würtemburg a similar prohibition was issued in August, 1870; whilst in Silesia and Bavaria schools are all lighted on one side only. A paper "On the Lighting of Schools" was read by M. Trélat at the Science Congress held at Nantes last year.

Hygiene.—The Council of King's College, London, founded a professorship of Hygiene in the College in 1870. Dr. Guy, the first professor, delivered the first course of lectures in that year. His remark, to which you allude, was—"If the physician takes cognisance of prevention, it is only to advise the patient and his household what precaution they should adopt; but the care of the officer of health extends to the whole district or community threatened by the disease. In a word, while cure or palliation is the aim of medicine, prevention is the object of hygiene; while the one studies the good of the unit, the other looks to the welfare of the mass."

Montague L.—Faraday's remark on the subject was—"In knowledge, that man only is to be contemned and despised who is not in a state of transition"; and again, "Nothing is more difficult, and requires more caution, than philosophical deduction, nor is there anything more adverse to its accuracy than fixity of opinion."

Inquirer.—The statue of Dr. Priestley, at Birmingham, is supposed to represent Priestley as he stood in Lord Shelburne's garden at Bowood on the memorable August 1, 1774, holding in his hand the burning-glass with which he concentrated the rays of the sun on the calx or oxide of mercury, and so produced oxygen.

The Scottish Temperance League and Scotch University Students.

The students of the Scotch universities (writes our contemporary the *Pall-mall Gazette*) of Saturday last have, it seems, an unaccountable aversion to teetotal lectures, and at the annual meeting of the members of the Scottish Temperance League, a few days ago, some painful statements were made as to the danger and difficulty of attempting to reason with these infuriated youths on the injurious effects of spirituous enjoyments. It was suggested at the meeting that the League should visit the universities, but the Secretary said that the directors had held a meeting with the students of Glasgow, of so unsatisfactory a nature that they "would think twice before they tried it again." When it was proposed to go to Aberdeen, some of the temperance reformers of that town stated that "the students there were such a set of rascals that they would not be responsible for the peace of the city if the directors came on such a mission." One member of the League, with praiseworthy fairness, observed that the "rascality had yet to be proved," and it certainly seems hard on the Aberdeen students that they should be designated by this term unless they have shown some greater claim to it than that of not lending a willing ear to the teachings of teetotalism.

COMMUNICATIONS have been received from—

Messrs. W. F. Hunt and Co., London; Mr. Hancocke Wathen, Fishguard; Dr. Thorowgood, London; Mr. G. E. Dobson, Netley, Southampton; Dr. Tilbury Fox, London; Mr. Sampson Gamgee, Birmingham; Messrs. Allen and Hanbury, London; Dr. Guy, St. Ives; Mr. Henry Habgood, London; Dr. F. S. Ferguson, Bolton; Mr. James Palmer, Whitehall; Dr. C. Handfield Jones, London; Mr. B. R. Wheatley, London; Mr. J. Chatto, London; Mr. Henry Morris, London; Mr. Howard Marsh, London; Mr. Thomas Stone, London.

BOOKS AND PAMPHLETS RECEIVED—

Third Report of the Medical Microscopical Society—Report of the Committee of Visitors of the Lunatic Asylum, for the Counties of Bedford, Hertford, and Huntingdon, for 1875—J. I. Ikin, F.R.C.S., Address delivered at the Annual Meeting of the Leeds Philosophical and Literary Society, 1876—Louis Landouzy, Contribution à l'Etude des Convulsions et Paralysies—Surgeon-Major Albert A. Gore, M.D., A Contribution to the Medical History of our West African Campaigns—Alfred Hill, M.D., Report on the Health of the Borough of Birmingham, for the quarter ending April 1, 1876—James Christie, A.M., M.D., Cholera Epidemics in East Africa—Basford Rural District, Second Annual Report—Supplement to the Monthly and Quarterly Returns of the Births, Deaths, and Marriages registered in Scotland during the year 1875—Report of the Aboo Lawrence School for the year 1875-76—Mr. J. G. Beaney, F.R.C.S., Doctors Differ, a Lecture delivered at the Melbourne Athenæum—Lithotomy, its Successes and its Dangers, by an M.R.C.S.E.—Forty-first Annual Report of the British Medical Benevolent Fund, for the year 1875—The Liverpool and Manchester Medical and Surgical Reports, 1876—S. Weir Mitchell, M.D., On the Use of Nitrite of Amyl in various forms of Spasm, &c.; Neurotomy; Headaches from Eye-Strain; Some of the Disorders of Sleep—Monthly Report on the Health and Meteorology of the Parish of St. Marylebone, April.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—The American Socialist—Nature—Students' Journal—O Correio Medico de Lisboa—The Shield—Boston Journal of Chemistry—The West Virginia Medical Student, May—New York Medical Journal, May—Guy's Hospital Gazette, May—The Chemist and Druggist, May—Philadelphia Medical Times—The Canada Lancet, May.

APPOINTMENTS FOR THE WEEK.

May 20. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. F. J. Furnivall, "On Chaucer."

22. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. W. G. Adams, "On some of Wheatstone's Discoveries and Inventions."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Broadbent, "On Ingravescent Apoplexy." Dr. Galabin, "On the Causation of the Water-Hammer Pulse, as illustrated by the Graphic Method." Dr. Sydney Ringer, "On the Buxus Sempervirens with reference to the true nature of Tetanus."

24. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

26. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Clinical Society, 8½ p.m. Mr. Barwell, "Singular Result of Excision of the Knee in a Child" (the patient will be exhibited). Mr. George Brown, "On a Case of Amputation of the Thigh for Acute Necrosis of the Tibia and Suppuration of the Knee-Joint in an Infant of nine months old" (the patient will be exhibited). Dr. Duffin, "On a Case of Tumour of the Corpora Quadrigemina." Dr. Pearson Irvine, "On a Case of Diphtheritic Paralysis simulating extensive Lung Disease." Mr. Teevan, "On a Case of Traumatic Stricture and numerous Fistulæ cured by Internal Urethrotomy." Dr. Wolston and Mr. Maunder, "On a Case of Intestinal Obstruction."

Quekett Microscopical Club, 8 p.m. Meeting.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. J. F. Moulton, "Verification of Modern Scientific Theories."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 13, 1876.

BIRTHS.

Births of Boys, 1256; Girls, 1253; Total, 2509.
Average of 10 corresponding years 1866-75, 2170·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	775	682	1457
Average of the ten years 1866-75	705·2	651·7	1356·9
Average corrected to increased population ...	...	...	1452
Deaths of people aged 80 and upwards ...	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	6	...	11	...	2	1	1
North... ...	751729	...	8	4	3	17	2	6	...	...
Central ...	334369	...	8	2	...	4	1	3	...	1
East	639111	...	9	7	...	19	1	3	1	...
South... ...	967692	1	13	12	5	28	...	5	...	4
Total	3254260	1	49	31	8	79	4	19	2	6

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·034 in.
Mean temperature	47·1°
Highest point of thermometer	63·0°
Lowest point of thermometer	35·3°
Mean dew-point temperature	36·2°
General direction of wind	N.E.
Whole amount of rain in the week...	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 13, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending May 13.	Deaths Registered during the week ending May 13.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2509	1457	63·0	35·3	47·1	8·39	0·00	0·00
Brighton	100632	42·7	69	53	57·0	34·6	45·2	7·33	0·00	0·00
Portsmouth ...	124867	27·8	77	52	...	...	...	...	...	...
Norwich	83430	11·2	54	38	55·5	39·2	45·2	7·33	0·05	0·13
Plymouth	72230	51·8	45	38	61·5	39·0	49·2	9·55	0·00	0·00
Bristol	199539	44·8	143	110	62·1	33·6	47·2	8·44	0·00	0·00
Wolverhampton ...	72549	21·4	53	35	60·6	32·8	45·3	7·39	0·00	0·00
Birmingham ...	371839	44·3	286	172	60·3	34·2	45·9	7·72	0·00	0·00
Leicester	113581	35·5	103	46	62·0	33·8	46·0	7·78	0·00	0·00
Nottingham ...	93627	46·9	76	39	67·9	36·2	46·8	8·23	0·00	0·00
Liverpool	521544	100·1	403	265	58·2	37·1	46·2	7·89	0·00	0·00
Manchester ...	357917	83·4	293	217	63·3	34·0	48·4	9·11	0·00	0·00
Salford	138425	26·8	136	84	60·8	29·8	45·6	7·56	0·00	0·00
Oldham	88609	19·0	86	48	...	...	...	...	...	...
Bradford	173723	24·1	146	99	66·0	35·4	45·5	7·50	0·00	0·00
Leeds	291580	13·5	256	157	68·0	36·0	46·5	8·06	0·00	0·00
Sheffield	274914	14·0	253	138	57·2	37·0	45·4	7·44	0·00	0·00
Hull	136933	37·7	138	59	54·0	35·0	43·7	6·50	0·00	0·00
Sunderland ...	108343	32·8	94	32	...	...	...	...	...	...
Newcastle-on-Tyne	139929	26·1	118	73	53·0	32·0	41·4	5·22	0·00	0·00
Edinburgh	215146	51·3	130	98	65·0	30·0	47·3	8·50	...	...
Glasgow	545144	90·4	445	290	64·2	38·8	50·5	10·28	0·00	0·00
Dublin	314666	31·3	183	155	60·8	30·0	47·0	8·33	0·00	0·00
Total of 23 Towns in United Kingdm	8028595	37·7	6096	3755	68·0	29·8	46·3	7·95	0·05	0·13

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·08 in. The highest was 30·24 in. on Monday morning, and the lowest 29·93 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

MEETING
OF THE
GENERAL MEDICAL COUNCIL,

HELD AT THEIR HOUSE, OXFORD-STREET, W.

FIRST DAY—WEDNESDAY, MAY 24.

OPENING ADDRESS BY DR. ACLAND, F.R.S., PRESIDENT.

AFTER the introduction of the new members, the PRESIDENT proceeded to address the meeting as follows:—

The Medical Council meets once more, deprived of four of the members who shared last year its deliberations. Dr. Bennett, as President of the College of Physicians of England, removes his clear calm judgment and assiduous services to another and kindred sphere. The persuasive speech and large knowledge of Dr. Sharpey will be long missed by the Council. Feelings of hearty regard will linger round the earned repose of this Nestor of Biological Science. Of Begbie and Parkes I can scarcely speak. Any formal obituary notice would be out of place here. Yet may it be said that Dr. Begbie was already endeared to us all, having won at once by his gracious presence that esteem which all Scotland had long bestowed. The Council would probably hold any words from the President concerning Dr. Parkes to be inadequate. His purity of heart, his self-sacrifice, his courage, his grasp of details, were beyond praise. Whenever his powers were brought to bear on our work (and when were they not?), we felt them to be the powers of a strong man, whose strength was surpassed by his generosity, his gentleness, and his goodness. Whilst regretting these great losses, we cannot but feel that the interests of the science and practice of our profession, the care of the public health, the progress of medical education in its complex relations, will be honourably and efficiently considered by those appointed to succeed them. Although the work of the Council lies strictly within the Act of 1858, it nevertheless increases as time goes on. The Council closely holds to the function of securing a sound education for those who have to do with individual or with national health. But the whole question of national education has shifted within the last twenty years, and the relation of the public to the medical profession in respect of scientific knowledge has altered also. When Mr. Walpole's Bill of 1858 was passed, the Corporations of Physicians, of Surgeons, and of Apothecaries were still generally accounted in England the chief promoters of biological learning. Now, universities and society at large are not less its promoters and guardians. In literary serials, and in common society, abstruse questions on all the physical sciences, and notably on biology, are freely discussed in a way which, fifty years ago, very few persons even in the medical profession could have followed. Psychological problems find data, formerly unexpected, in minute physical inquiries into development, inheritance, and pathology ranging through the animal series of every epoch of the globe. It is not, then, surprising that the topics which the Council has to consider little favour a supposition once entertained, and last year alluded to—viz., that its work would be almost ended when all the licensing bodies had been visited by inspectors, and their reports had been received. It would be nearer the truth to say that when once the whole Council was satisfied that it could implicitly rely on the uniformity of a minimum standard in all the examinations, then there would be leisure calmly to study in detail the exact value of that standard, and of the education which was to be tested by it. The Council would then be in a position to take a broad view of the relation in which the medical student of our day stands to modern wants, modern science, and modern division of professional labour. The Council has had once and again to do this in a general manner; but the many undiscussed reports before us may satisfy us what a mass of unsolved detail remains. Dr. Farr, the eminent statistician, at the beginning of the year drew my attention to a statement in the Supplement to the thirty-fifth Report of the Registrar-General.(a) He says there that in the army there is a surgeon to every 202 men; in the general population 1 to every 1276 of the population. The proportion of medical men in 1851 was 9·7 to every 10,000 living, 8·3 in 1861, and only 7·8 in 1871. In the army 49 per 10,000 are required. It has become a matter of public concern, that it is difficult to supply the vacancies in the army medical staff with competent practitioners. Dr. Farr further writes to me, "One thing is certain, that the medical attendance for the people of England was extremely defective in 1851, and that it is still more defective in 1876. The danger is, that it may grow quite inaccessible to vast numbers of the people. We know how this arises. Everyone in the profession wishes to see every man in it instructed up to the highest standard." It appears from Dr. Burke that in Ireland the proportion of medical men seems to have increased from about 4 to each 10,000 in 1851, to 5 per 10,000 in 1861, and 6 per 10,000 in 1871. But Mr. Pitt Dundas states that in Scotland the number has diminished, as in England. There were 7·2 per 10,000 in 1851, 6·1 per 10,000 in 1861, and 5·2 per 10,000 in 1871.(b) Should it appear on investigation that the supply of medical men is inadequate, and that the poorer classes especially are attended by unregistered practitioners, it may become a proper subject of inquiry by the Council whether there is any ground for supposing the examinations to be undesirably deterrent, or the methods of preparing for them in any special manner inadequate, or whether there are any details of study enforced, which have no direct relation with the clinical practice of their profession, and of which the average student's memory may be lightened; or whether the secondary schools which our students attend do indeed give the best preparation for the medical life, whatever that may be. This subject has an important bearing on the question which is more and more forced upon the Council, how to insure such a test of a sound minimum education, in each branch of the kingdom, as can be relied upon not so much for its severity as for its wisdom, and which we may feel sure is the fittest preparation for actual practice and daily life. It will appear presently that a sharp debate may spring up on this matter from an unexpected quarter. It may be well here briefly to refer to subjects brought before your Executive Committee since the last meeting. These have been few, but neither unimportant nor unsuggestive. First, as to registration of death certificates. Representations have been again made with regard to the signing of death certificates by unqualified practitioners, or by qualified practitioners in cases where they have never seen the deceased.(c) The Registrar-General has written fully on the subject in letters(d) which appear in the Minutes of the Executive Committee. It will be a public benefit if this often-raised question bring about a uniform and satisfactory mode of certifying to the causes of death in the three branches of the kingdom. The Registrar-General is entitled to the thanks of the Council for his uniform and courteous attention to a question often repeated because in its very nature difficult of settlement in both dense and thin populations. An apt illustration of this is found in the weekly Return of Births and Deaths in London for May 13. "During the three weeks ending the 6th inst., the causes of no less than 13 per cent. of the deaths registered in Peckham were uncertified either by registered medical practitioner or by coroner. This unsatisfactory condition of the death-register is mainly due to the employment of unqualified assistants by medical practitioners in that neighbourhood. When patients are *exclusively* attended by unqualified assistants, no legal certificate of the cause of death can be obtained unless an inquest be held." Second, as to proficiency in vaccination. A case of some importance should be named to the Council, though a further statement will come from a committee. A practitioner in Essex was refused an appointment under the Local Government Board, in the district where he lived, on the ground that his certificates were not in conformity with the regulations of the Board as regards the knowledge of vaccination. Such a refusal, besides causing inconvenience, would tend greatly to his discredit. He had complied, as he believed, with all that had been required by the Medical Council and the College of Physicians, and had the *testamur* which the College recognised. It was ascertained that this was not a solitary case; and, as it was one calculated to inflict real hardship on innocent students, no time was lost in obtaining the fullest information on the causes of the occurrence. That information has been laid before the Executive Committee and before the Branch Council of England, and committees have been appointed to report on the whole subject. It had been hitherto supposed

(a) "Supplement to Report of Registrar-General," p. 82.

(b) For the above figures I am indebted to the kindness of Dr. W. Farr, F.R.S., Dr. Burke, and Mr. Pitt Dundas.
(c) See Executive Committee, March 23, 1876.
(d) Branch Council for England, April 11, 1876.

to have been finally adjusted by the careful discussions in the Council in the years 1867 and 1868. It is to be hoped that such regulations will hereafter exist that both the efficacy of vaccination and the character of the younger practitioners may be alike secured. We may pass to subjects brought before the Legislature since we separated. The attention of the Government was drawn to the state of the Conjoint Scheme in England, by a question put in the House of Commons, on March 9, 1876, to the Vice-President of the Privy Council. Lord Sandon's reply was that "the Government has reason to believe that, as regards England, considerable progress has been made towards settling the basis of an arrangement which is likely to receive general assent. We have not the like information respecting Ireland and Scotland; but if satisfactory arrangements are concluded in England, I cannot but hope that they will lead to a like result in the other parts of the United Kingdom. In this state of the case, I cannot give any opinion as to what may be the views hereafter of her Majesty's Government, as to the expediency or necessity of proposing legislative measures, to promote or hasten the general adoption of the 'Conjoint Scheme.'" It is possible that at a later period of our meeting the matter may be more fully gone into. At present, it stands broadly thus. After thirty-nine meetings at the College of Physicians, a Scheme for England was agreed upon in 1874, by all the bodies in England, except the Apothecaries' Society, and was accepted by the Medical Council. In the course of last year, before it could come into operation, this approved Scheme was re-discussed at the instance of the Royal College of Surgeons of England. Another Scheme was agreed to, after seven meetings, by a majority of the representatives of every licensing body in England. It must be a matter of regret to Sir James Paget, the assiduous chairman at these conferences, that all the bodies represented have not confirmed the conclusions of the majority of the delegates. The only Scheme now before the Council is that of 1874, which is not cancelled; but, also, it is not in operation. There is, therefore, no motion on the subject before the Council; and there is no "Conjoint Scheme" for England. The facts remain as heretofore, that a qualification either in medicine or in surgery entitles students to be placed on the Register, and there is no common standard for a minimum qualification. It is right, perhaps, to add to this brief statement that the College of Physicians in England adds surgery and midwifery to its medical examinations, and is recognised as conferring a qualification in surgery and midwifery as well as in medicine; and that the College of Surgeons adds medicine to its surgical examinations when a candidate has not a medical qualification. The Bills which are before Parliament need not detain the Council long to-day. The Council has partly gone into the subjects of both.(e) Mr. Cowper-Temple's Bill, the same as that of last year, will not, unless the Council change its opinion, be taken as an adequate settlement of the vexed question of women's admission to the Register. Nor is the Government likely, therefore, to promote its passage through Parliament. At the same time, considering the opinion expressed by the Council in a report on the subject last year (June 26); considering the promise by the Government on the withdrawal of Mr. Cowper-Temple's Bill, that attention should be given to the question; and considering the Act obtained last year by the College of Surgeons of England, and its difficulties this year, with regard to granting licences in midwifery, it would seem both impracticable and impolitic to defer a settlement of the question. Mr. Gibson's Bill deals with two subjects only. The first is the equality of qualification for certain offices in Ireland, on which information is required before the Council can ask the Government to support the Bill; the second is, the registration of public health diplomas or certificates as an additional qualification. On this subject a committee of the Council has already reported. Mr. Ouvry also gave his opinion as to the form of a clause for a Bill recognising public health certificates. It was laid before the Council on March 1, 1870. This might be a proper subject for a committee, inasmuch as the Government has asked the opinion of the Council on Mr. Gibson's Bill, and awaits an answer before announcing its intentions thereon. This point, also, does not admit of delay. It may be remarked that the Universities of Dublin, Edinburgh, Cambridge, Oxford, and London have successfully instituted examinations in subjects bearing on public health. In a sanitary conference held in London in the early part of May, and presided over by Lord Aberdare, it was suggested that the chief medical officers of health should be required to have such certificates or diplomas. A report on the subject from the British Medical Association will be laid before the Council. There appears to be a growing feeling that the possession of certain professional attainments, defined by the Medical Council, should, without regard to sex, be the condition of admission to the Medical Register. This is part of the general movement in modern society, and notably in England, America, and Russia, which may be cheerfully accepted by some who would not spontaneously promote it. There is a further conviction that there should be a completer and more systematic training for women who are engaged in midwifery, and a registration of those who are properly qualified according to a legal standard. As regards both of these propositions, the Council will doubtless feel that if, either by an enabling or compulsory Bill, or by the creation of a new examining board, women are admitted to the present Register, and also classed in a register of their own, with special qualifications, still there will remain many details with respect to education, hospitals, schools, and examinations, which will severely tax the attention of teachers and licensing bodies, and ultimately, and that before long, occupy this Council. The Right Hon. Russell Gurney, indeed, is prepared to bring in a Bill, in which it is proposed that the existing licensing bodies shall be enabled, though not required, to admit persons to examination without regard to sex. This Bill will be shortly laid before you for consideration by desire of the Lord President, who requests your opinion thereon. A communication from the President of the Council of Surgeons regarding the position of the College in respect to midwifery licences will be also submitted to you. But it would occupy the time of the Council too long to enter fully into these two subjects on this occasion. One other detail requires notice to-day. A question was put by the Commission on the practice of subjecting live animals to experiments for scientific purposes, whether the Medical Council recommended the establishment of physiological laboratories, or whether the recommendation came from individual teachers, or the different medical corporations and licensing bodies (Q. 980). The subject had been advisedly postponed last year, and has not been discussed by the Council; but it is one of the class just now alluded to as requiring careful attention, and a motion on this subject will be proposed for your consideration, with regard to the Bill introduced into the House of Lords, on cruelty to animals, by the Earl of Carnarvon. In this connexion it may be named that the Government desires to afford every facility to members of the Medical Council for examining the remarkable educational appliances and apparatus for scientific research now collected at South Kensington, whether from England or from foreign countries. This valuable series throws light upon the question of the extent of training in physical science which is thought possible by various countries, either in ante-professional education, or in relation to technical professional studies. It may be quite right that time, money, and energy should be freely, nay lavishly, expended by great investigators on matters which may be useless, even injurious, to ordinary students. It cannot be doubted that great freedom of action in this matter should be left to individual teachers of advanced students, while the Council collectively fixes the standard which is indispensable for attaining an adequate knowledge and skill for the practice of their profession. The Council, in looking over the programme of work before it, will observe the number of committees which will be proposed for appointment. The Reports of Visitors, as well as the observations upon those reports, that have yet to be considered are numerous. The committee nominated on June 18, 1875, presented a report on June 25 on thirteen of the Reports of Visitations; and this is found in the Minutes of that date. Several important general questions are raised. The same amount of interest and industry bestowed for many years on this part of our duty by Dr. Parkes, will, we may be sure, be brought to bear by Professor Humphry, whom the Executive Committee have asked to take up this work during your pleasure. When the reports of the committees are before the Council, either at this or a subsequent meeting, the Council will be in a position to revise the recommendations which it has issued, and on which it has received commentaries from the several licensing bodies. Of all these recommendations probably none will demand graver consideration than those which press on the nineteen licensing bodies the importance of combining

(e) See Minutes of Council as to Mr. Cowper-Temple's Bill, June 24, 25, 26, 1875; as to Public Health, July 7, 9, 1869.

to form examination boards, and those which suggest that no persons be placed on the Register who have not an adequate knowledge of every branch of their profession. The Council cannot fail to observe that the tendency to create new qualifications which press for admission to the Register, by the bodies independently, has not diminished, as is shown by the independent action of the Universities in respect of the new examinations in public health, and the concurrent desire expressed in various quarters to make these additional qualifications or titles admissible on the Register. On all these and many other points the free discussion for which the meetings of this Council afford us an opportunity is a great instrument for evoking order out of the disturbed conditions necessarily attending a transitional epoch, and a period of rapid and, on the whole, satisfactory progress. I will detain you no longer from the consideration of the various important subjects which will be brought before you.

ORIGINAL LECTURES.

CLINICAL LECTURE ON CATARACT.

By CHARLES HIGGENS, F.R.C.S.,
Ophthalmic Assistant-Surgeon at Guy's Hospital.

Gentlemen,—Between April 5, 1875, and February 29, 1876, I operated for the removal of cataract on fifty-eight eyes of forty-nine patients. The results of these operations were as follows:—Fifty-five were more or less successful, whilst three were entire failures. By "successful" I mean that the operation-wounds healed satisfactorily, and that sight was improved. Certainly, the improvement in some cases was limited, extending only to ability to count fingers held before a window, or, in the worst cases, only to the perception of large objects situated between the eye and the light. The number of eyes in which this limited improvement only took place was ten. The causes of the want of sight were—in five, severe iritis after the operation; in two, opacity of the vitreous humour, which probably existed previous to the operation; in one, extensive atrophy of the choroid and retina in the region of the yellow spot; and in two, opacity of the cornea.

In these last two, however, vision was improved quite as much as could be expected, when taking into consideration the condition of the cornea. In the remaining forty-five eyes very excellent sight was restored; whilst in several the acuteness of vision, with suitable lenses, rose to nearly the normal standard. In ten of the fifty-eight eyes, what are known as secondary operations were required before the final results were attained.

Of the three cases of failure, two eyes were lost from corneal suppuration; one of these, however, was in a patient in the last stage of diabetes, in whom, perhaps, it would have been as well to wait, as he is since dead. Another was a case of congenital cataract in a child three and a half months old, in which, I believe, destructive choroido-iritis was set up by too free use of the needle in an operation for solution. In only one case of the whole fifty-eight did any prolapse of vitreous take place, and this was in an extremely unsound eye, with shrunken lens, enclosed in a dense capsule, and an extremely fluid state of the humour; none of the other accidents, which I shall presently describe as happening in cataract operations, occurred.

Besides the fifty-eight operations for removal of cataract, there were five eyes affected by what is called "lamellar cataract," in each of which a small artificial pupil was made by iridectomy, the result in each case being a great improvement of vision.

Cataract, as I need hardly remind you, is an opacity of the crystalline lens. The causes of this opacity are somewhat obscure, but it probably depends, in the majority of cases, on impairment of nutrition consequent on senile decay or general constitutional conditions—*e.g.*, diabetes. Cataract also occurs in connexion with inflammatory changes in the choroid, ciliary body, iris, or vitreous, is met with as a congenital defect, and not unfrequently results from injury. There are two principal forms of cataract—the soft or cortical, and the nuclear or hard. In the former the cortical substance of the lens is primarily affected, the central portion or nucleus subsequently becoming opaque, the whole being soft or even fluid. In the latter the central portion or nucleus of the lens first becomes hard, amber-coloured, and opaque; the cortical portion eventually becoming affected, but always remaining softer than the nucleus.

Cortical cataract is essentially a disease of childhood and early adult age, whilst nuclear cataract occurs with few exceptions in persons past the middle period of life; hence the former is sometimes described as juvenile, the latter as senile cataract. There is, however, one exception to this rule, viz., in opacity of the lens from injury—traumatic cataract: in these cases the bulk of the lens is soft in persons of any age, but it is softer in the young than in the old.

In my fifty-eight cases there were fourteen of cortical cataract, seven of which were idiopathic—and most of them congenital,—whilst the remaining seven were "traumatic"; the remaining forty-four were nuclear cataracts. There were, in addition, the five cases of "lamellar" cataract, which is a peculiar circular, disc-like opacity of the cortical portion of the lens, situated centrally from its periphery, but nearer to its anterior than its posterior surface. This form of cataract is always congenital; it, as a rule, remains stationary, and is best treated by making an artificial pupil over a portion of the lens which is transparent, as was done in the five cases alluded to.

In the diagnosis of cataract we must be careful not to take simple naked-eye appearances as evidence. The lenses, in old people especially, often look bluish and opaque. I have on several occasions seen this deceptive appearance, accompanied by gradual failure of vision, diagnosed as cataract, when in reality the patient was suffering from glaucoma, from which he was allowed to go blind, when sight might have been saved by proper treatment.

We must be careful not to fall into this error: the true nature of the case can be diagnosed easily enough by oblique illumination, assisted by a very casual glance with the ophthalmoscope. By these means we find out for certain whether or not the lens is opaque in whole or part.

If the whole lens be opaque, we see by both methods of examination that the pupil is occupied by a bluish-white or amber-yellow mass; whilst if parts only are affected, others being still more or less transparent, oblique illumination shows greyish streaks or spots, or a central yellow opacity, all situated on a hazy or dark ground; and examination with the ophthalmoscope reveals dark spots, patches, or streaks upon a bright-red ground. The bright-red ground is the normal reflection of the choroid through the transparent portions of lens; the dark spots, etc., are caused by stoppage of the reflected light by the opaque lens-matter.

In any case of cataract we shall find our examination greatly facilitated by dilating the pupil with atropine previous to making it. The treatment of cataract is entirely operative. When a case comes before us we have only two points to settle—first, Is it suitable for operation? and secondly (except in the lamellar cataract), How shall the opaque lens be removed? In deciding that a case is fit for operation, we must ascertain, first of all, that the eye has good perception of light, showing that the retina is healthy. If this precaution be not taken, the cataract may be removed, and all apparently do well, excepting that the patient's sight is in no way benefited. Most persons suffering from cataract can distinguish the shadow of the hand passed between the eye and the light; such are the most favourable cases for operation. But we may remove the cataracts from eyes which can only distinguish the light of a lamp in a dark room, with a fair prospect of improving vision. Next, the state of the cataract itself should be taken into consideration. If one eye only be affected, we should defer operating until the lens becomes entirely opaque—until the cataract is "ripe," as the expression is. If both eyes be affected, however, and the patient have no useful vision, we have no choice, but must operate whether the cataract in either be ripe or not. We should only operate on one eye at a time, and select that in which the cataract is more advanced.

These should be our main considerations in deciding whether or not a case is suitable for operation; but there are some other minor details which I may as well mention, though I cannot say that I ever pay much heed to them.

Persons prematurely old, with very white hair and bad arteries, suffering from gout, in an advanced stage of diabetes, or feeble from any other cause, are not good patients for cataract operations. Age, as counted by years, is no bar. Age is relative—many persons, so far as surgical considerations go, being as young at eighty as others are at fifty. One of my patients, in whose case the operation was entirely successful,

was in his eighty-first year, whilst several others were over seventy-five.

Cataract may be removed in one of two ways—by solution or by extraction,—and we have to decide which method shall be adopted. As a broad rule, removal by solution is applicable to cortical or juvenile cataract, whilst nuclear or senile cataract should be removed by extraction.

The object of the operation for solution is to open the capsule of the lens, and thus allow its substance to be acted upon by the aqueous humour, by which it is broken up and softened, absorption finally taking place.

The operation can be performed as follows:—The pupil being first well dilated with atropine, the patient should be placed prone upon a couch or seated in a chair. No anæsthetic in needed. We should keep the eyelids separated by the fore and ring fingers of one hand, and steady the globe by pressing gently upon it with the middle finger. Then take the cataract-needle in the other hand, pass it obliquely through the cornea, at such a distance from its centre that any resulting cicatrix will not interfere with vision. The needle should then be pushed on across the anterior chamber into the area of the pupil, its point depressed, and three or four incisions made in the lens capsule, so as to divide it freely. We must take care to use the needle very gently, and not to pass it too deeply into the substance of the lens, otherwise the suspensory ligament may be torn, and the lens displaced, when it will very likely act as a foreign body, set up choroido-iritis, and destroy the eye. This happened in one of my cases.

The capsule having been divided, the needle should be carefully withdrawn, and a drop of solution of atropine placed between the lids. The only after-treatment required is the constant use of atropine, so as to keep the pupil widely dilated. If the eye be examined a few days after the needle has been used, we see white flocculent lens-matter protruding through the opening in the capsule into the anterior chamber, showing that the lens is swelling and undergoing solution. We shall probably have to repeat the operation in the course of a month or six weeks, and possibly on one or two subsequent occasions, before the whole cataract is absorbed.

Care must be taken not to do too much at one sitting, or the lens may swell too rapidly, press upon surrounding parts, and give rise to iritis or cyclitis, accompanied by severe pain and increased tension of the eyeball. Should pain and increased tension come on after a needle operation, we may be sure that the lens is swelling too much, and must either perform iridectomy to make room for its increase in bulk, or extract the cataract.

I have a good many objections to needle operations, the principal being that the treatment spreads over such a very long time, months being occupied in the process of absorption; and in most cases there is so much trouble from opaque capsule after the greater part or the whole of the lens has been absorbed; and, moreover, there is the danger of too rapid swelling of the lens, with its results. For these reasons I seldom operate for solution, and when I do employ the needle it is only in very young children, in whom time is no object.

Of the fourteen cortical cataracts, seven were needled, and these were all in babies; with the one exception—that already mentioned—the results were satisfactory. The other seven cortical cataracts were removed by linear extraction, which is the method of treatment I much prefer in these cases. I sometimes, however, break up the lens with a needle first, and perform linear extraction when the process of solution appears to have set in. Six of the seven cases yielded most perfect results; in the remaining case the vitreous was full of opacity, and only slight improvement followed the operation. This case was one of traumatic cataract, and very probably bleeding into the vitreous chamber took place from the injury which caused the lenticular opacity. What we understand by linear extraction is the removal of the cataract through a section made in the same direction as a straight line drawn from the centre of curvature of the cornea to its circumference—one of its radii; the section consequently passes through the cornea perpendicular to its surface.

For the performance of linear extraction with upward section the patient should be placed in the prone position and thoroughly anæsthetised. The lids being separated by a wire speculum, the globe must be fixed, steadied, and drawn downwards, by the fixing forceps holding the conjunctiva and subconjunctival fascia near the lower margin of the cornea. A long, thin cataract-knife should then be entered as far back as possible in the sclero-corneal margin, at a point just sufficiently below the upper boundary of the cornea to allow of its entering the anterior chamber at quite its peripheral part; the back of the knife being directed towards the iris, and its edge towards the cornea, it must be pushed across the anterior chamber and through the sclero-corneal margin at a point on the inner side of the globe corresponding to that of entrance on the outer; it should then be made to cut its way out by a gentle sawing movement. The section when complete has its central portion just within the upper margin of the cornea, its extremities being in the sclero-corneal margin on either side. The next step in the operation is the removal of a portion of iris. The iris-forceps should be introduced through the wound, passed up to the margin of the pupil, allowed to open, closed again, and withdrawn, carrying the iris with them, a small piece of which, corresponding in breadth to the diameter of a pupil of medium size, should be excised with the iris-scissors. The new pupil, if properly made, should resemble a keyhole in shape. The eye will probably require to be drawn down by an assistant during this part of the operation. The lens capsule should next be lacerated by introducing the sharp hook through the wound and gently scratching it; probably, as soon as the capsule has been ruptured, a quantity of the cataract will escape, and the remainder is easily removed by gently stroking the cornea with the curette. When all the opaque material has been got away, the speculum must be removed, the lids closed, and covered with two folds of wet lint, secured by a turn of bandage. Only the eye operated on need be bound up; the patient need not lie up, but should keep quiet for a day or two.

We have now left for consideration the treatment of nuclear cataract. On forty-four out of the fifty-eight eyes extraction was performed for this kind of opacity, the result being that in thirty-three very excellent sight was recovered, in nine a considerable improvement took place, and two eyes were entirely lost; about 4½ per cent. These results are not brilliant, but—taking into consideration that all comers were operated on, provided only that the affected eyes had perception of light, and that the major part of the lens was opaque—are eminently satisfactory.

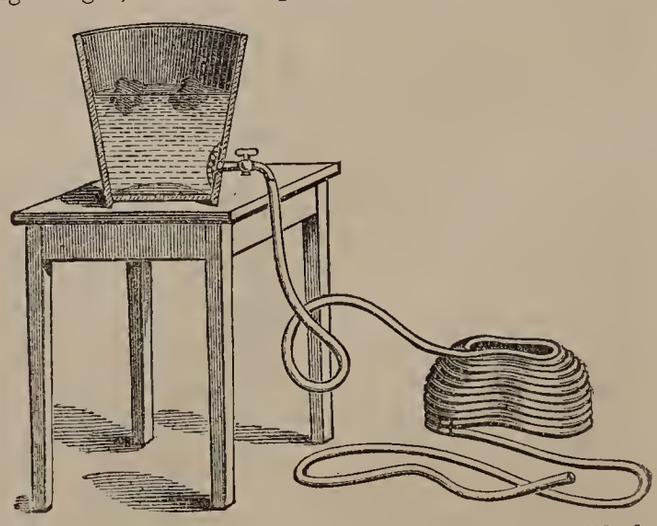
(*To be continued.*)

ORIGINAL COMMUNICATIONS.

IMPROVED ICE-WATER CAP FOR APPLYING COLD TO THE HEAD IN HYPER-PYREXIA.

By J. KNOWSLEY THORNTON, M.B., M.C.,
Surgeon to the Samaritan Hospital for Women and Children.

The accompanying engraving shows the cap with its supplying and emptying tubes, and a section of the pail containing the ice and water. The only remark I would make about the engraving is, that the lumps of ice represented floating in the



water are much too small; it is best to have a large block of ice nearly filling the upper part of the pail, as it lasts longer, and insures the water being thoroughly iced before it passes into the pipe. The tap pipe is protected by a wire grating to

prevent dirt from the ice, or what it has been wrapped in, passing into the pipes, and the tap enables the quantity of water passing through the pipe to be regulated. As a rule it will be found best, however, to let the full stream of water pass, at any rate when it is necessary to *bring down* temperature; when it only requires to be *kept down*, a smaller stream will answer every purpose, and give great relief to the nurse—the work of keeping the pail supplied with ice and water, and, removing the used water, being by no means a light one, especially if the cap requires to be kept on constantly for some days. When the water has once well started running, it of course continues to run on the syphon principle; but in order to start it at first the pail must stand a little above the level of the patient's head—indeed, the apparatus will be found to work best if the bottom of the pail is always kept an inch or two above the level of the top of the cap when on. The caps are made of different sizes, as it is important they should fit tolerably close to the patient's head, otherwise the hot air between the cap and the head causes great loss of cooling power.

I first saw the cap in Edinburgh, when I was house-surgeon to Professor Lister, and it was then made in four chambers partially separated from one another, with a supply pipe at one side, and exit pipe at the other: in this form it was apt to get too full or too empty, and was very difficult to manage: still we found it very useful in some cases of compound fracture of the skull. Soon after coming to London, it struck me that it might be found very useful in the hyper-pyrexia so frequent after ovariotomy, and Professor Lister was kind enough to send me my old friend as a copy. Further experience with it convinced me of its defects, and I made many suggestions to Mr. Krohne, and he has had the necessary alterations made, until at last I think we have got a fairly perfect apparatus. Coiled tubing has been before used in a similar manner for cooling purposes, but experiments proved that simple coiled tube did not give a sufficient degree of cold. The cap as at present made is formed of tubing of which the side next the head is flat, so that only the double thickness of the tube is lost, and there is no room for warm air as there was when two round tubes were lying side by side upon the head.

The cap will be found to bring down temperature very rapidly when properly used in all hyper-pyrexial states; and it has the great advantage, especially in surgical cases, that it can be applied without in any way inconveniencing or fatiguing the patient, and without any such loss of strength as is necessary when cold sponging or any of the various forms of pack or bath are used with a similar object.

After carefully watching a large number of cases in which the cap has been used, I have become convinced that it acts not entirely or even chiefly by cooling the blood as it passes through the cranium (*i.e.*, through the cooled area), but that it acts by directly cooling the brain; this part of its action being the most important in reducing the hyper-pyrexia. The subject is too long to enter upon here, my present object being merely to call the attention of the profession to the cap, as I now consider it to be in a really simple and serviceable form. I may mention that the caps can be either hired or bought of Messrs. Krohne and Sesemann, Duke-street, Manchester-square, to whom my thanks are due for the attention they have given to my suggestions, and the care with which they have watched them being carried out at the indiarubber works.

TETANUS IN THE TROPICS SUCCESSFULLY TREATED WITH OPIUM AND CHLORAL HYDRATE IN COMBINATION.

By JOHN IMRAY, M.D.

Within the whole range of the many diseases that the tropical practitioner of medicine has to deal with, there is none, perhaps, if we except hydrophobia, so unsatisfactory as regards the result of treatment, or in its effects so distressing to witness, as tetanus. The small proportion of those attacked that recover from this direful malady in its acute form, makes it only too evident that, notwithstanding the multitude of remedies that have been at various times tried, no plan of treatment has been discovered hitherto that will bear the test of extended experience.

In these hot countries tetanus is met with so much more frequently than in cold climates, that the practitioner eagerly grasps at any new remedy that may be proposed wherewith to combat it, or any mode of treatment that may give a promise of success.

The recovery of three cases of tetanus in the Roseau Infirmary of this island, following consecutively, and treated in the same manner, is sufficient reason for giving them publicity, especially as the remedial agents employed manifestly exerted a marked and striking influence over the tetanic spasms; nor could any other conclusion be come to but that the medicines aided most materially in causing the recovery of the patients. It by no means follows, however, that the same mode of treatment will be equally successful in other hands. Still, in a disease that generally baffles all our efforts to overcome, other members of the profession in the West Indies and elsewhere may consider the mode of treatment adopted in these cases at least worthy of trial.

The leading features only of the first case are given—one of idiopathic tetanus. The two following—both of traumatic tetanus—were carefully observed and recorded by Dr. Nicholls, and they have by him been reported in a more detailed form.

Case 1.—Zepherin T., a negro boy, about seventeen years of age, was admitted into the Roseau Infirmary suffering from "spasms." These spasms on admission were slight, but they soon became more severe, the disease being, in short, idiopathic tetanus. The remedies usually administered in this malady were resorted to with no good effect, the paroxysms continuing to increase in frequency and intensity. Opium was freely given, and somewhat relieved the suffering, but did not check the course of the attack. The same remark applied to the hydrate of chloral, which was also exhibited at intervals, and after each dose the spasmodic action was for a time kept in abeyance, and sleep induced. Still, the spasms on their recurrence were in no way lessened in their severity, nor did the march of the disease to a fatal termination appear to be arrested. On two separate occasions, the Calabar bean, which has been found successful in the treatment of some cases of tetanus, was administered until its toxic symptoms were produced—cold sweats, cold extremities, weak quick pulse, nausea,—but not the slightest impression was made on the tetanic spasms. The Calabar bean having thus failed, and as neither opium nor hydrate of chloral taken separately appeared to have any permanent control over the tetanic spasms, it was thought that the combined operation of these powerful medicinal agents might possibly exert a different or modified action on the morbid state of the excito-motory nervous system. Accordingly, a dose of tincture of opium and hydrate of chloral was given to the boy, with the result of quickly subduing the spasmodic action, and bringing on quiet sleep, which lasted for a considerable time. When the effect of this dose began to wear off, the spasms returned, but another dose of the tincture of opium and chloral was administered with the same favourable result as the first—cessation of spasmodic action, and quiet sleep. In this manner the operation of the chloral and opium was kept up for many days, the force and frequency of the spasms yielding day by day under its influence. The patient's strength was supported by nourishment and stimulus frequently taken. The boy gradually recovered, but the draughts could not be altogether left off until more than a fortnight had elapsed from their commencement.

In this case the hydrate of chloral given alone induced sleep, but did not mitigate the violence of the spasms; while the joint action of opium and chloral lengthened the period of repose, and lessened the force of the spasmodic fits. The power of these combined drugs in controlling and repressing the tetanic spasmodic action was indeed very remarkable, and in the cases detailed by Dr. Nicholls was specially notable. It appeared as if a power stronger than that of the disease forcibly repressed the morbid action, like a heavy weight placed on a spring, and if the pressure yielded, the spring began to rise, but being constantly maintained, the morbid nervous phenomena gradually gave way, and finally the disease was vanquished.

It happens only too often in tetanus that the patient loses almost, if not altogether, the power of deglutition: our only alternative in such cases is to give nourishment with stimulus, and introduce medicinal agents into the system by enema. It will be seen in the cases related by Dr. Nicholls that the patients were, for the most part, kept under the influence of the chloral and opium administered by enema, and the operation of the medicines appeared to be developed as speedily and powerfully as if the draughts had been taken into the stomach. When deglutition is only impeded even, the excitement caused

by giving an enema is much less distressing to the patient than painful attempts to swallow, which are very likely to bring on general tetanic spasms.

In the treatment of tetanus there can scarcely be any doubt of the necessity of supporting the system by nourishment and of giving stimulants with a liberal hand. If they cannot be taken by the mouth, then the enema should be had recourse to. It may be questioned if the chloral and opium combination in these cases would have been so successful in its results had it not been accompanied by the free use of alcoholic stimuli.

In 1871 an outbreak of hydrophobia that occurred in this island was recorded in the pages of the *Medical Times and Gazette*, and at that time a case of this appalling disease came under my care in the Roseau Infirmary. It need scarcely be said that the treatment employed was as unavailing as indeed it was hopeless, inasmuch as an instance of recovery from an attack of hydrophobia has, I believe, never been known. Should it ever unhappily fall to my lot to meet with another case of this horrible distemper, I should instantly resort to the potent compound of chloral and opium, administered for obvious reasons by enema, and in full doses, so as to maintain its continuous action on the system. That this might be accomplished simply by means of enemata is shown in these cases of tetanus, where it appeared that the medicines were as readily absorbed by the intestinal mucous membrane as by the stomach. It is true that tetanus is essentially distinct from hydrophobia; nevertheless, both are spasmodic diseases, and the administration of chloral and opium by enema does appear to me to merit a trial in the treatment of this frightful disease.

Case 2.—Samuel L., a powerful negro, aged forty-seven, in robust health, was admitted into the Roseau Infirmary on March 6, 1875, with a compound fracture of the first phalanx of the right great toe. The toe was immediately fixed in position, and the wound dressed.

March 19.—Wound looked unhealthy. He complained of pain in the foot and toe.

21st.—Called up to see him during the night, and found him to be suffering from tetanus. Trismus, opisthotonus, and risus sardonicus were present. The pupils were contracted very much. The muscles of the spine, abdomen, and neck were in a state of great rigidity. There were occasional tetanic spasms. He was much alarmed at his condition. Ordered ten drops of liquor opii sedativus (Battley's solution) and twenty grains of hydrate of chloral to be given every hour.

22nd.—Symptoms much about the same as yesterday. He was kept under the influence of the medicines throughout the day. Little nourishment taken.

23rd.—Jaws stiffer, and deglutition much more difficult; nevertheless he has taken a fair quantity of nourishment. Three doses of the mixture were given during the day, and after each dose inhalations of nitrite of amyl were administered. Bowels acted this evening for the first time since the 21st.

24th.—Symptoms increased in severity. Spasms more frequent, and the muscles of the back, abdomen, and limbs still persistently rigid. Deglutition very difficult. An inhalation of nitrite of amyl was given at 8 a.m.; but, as it seemed to have no beneficial effect, an enema, composed of rum-and-water, with ten drops of liquor opii sedativus, and thirty grains of hydrate of chloral, was ordered to be given every two hours, until the influence of the medicines was produced. 12.30 p.m.: In a state of stupor. Stimulus ordered to be given frequently. 8.45 p.m.: Not so drowsy. Symptoms less severe. He took a good deal of nourishment, the power of deglutition having improved. Complained of weakness and nausea. Pulse 112; temperature 99·2°.

25th.—Since the last enema was given, at 8.45 p.m. yesterday, he has been in a semi-comatose state, but yet he had occasional slight spasms. During the night large quantities of "red urine" were passed. Throughout the day the action of the medicines was kept up, nevertheless spasms occurred at intervals. Nutrient enemas were administered. Towards the evening the quantity of liquor opii sedativus in the injections was raised from ten to twenty drops, and directions were given to alternate the injection with the draught.

26th.—Slept very well last night, so no medicines were given. Bowels acted this morning. He said he was better, and that he did not feel so stiff. Mastication and deglutition improved. Pulse 112; temperature 100°. Ordered stimulus occasionally, and the enema and draught to be given alternately throughout the day.

27th.—About the same. He had a few spasms during the day. The action of the medicines was kept up. He complained much of thirst.

28th.—Two or three spasms during the day; but on the whole he was better. Treatment as before. Saline draught occasionally, to relieve the thirst, which troubled him much. Pulse 112; temperature 100·6°.

30th.—Very little change since the 28th. The medicines given as before, but not quite so often. Mastication and deglutition had slightly improved. He was constipated.

April 1.—Still the same. He lay for the most part in a state of stupor, the result of the action of the medicines; but occasionally slight tetanic spasms occurred. The bowels acted early yesterday morning.

2nd.—Slept fairly, but was several times awakened by the spasms. Pupils very much contracted. Towards evening the spasms became stronger.

3rd.—He was not so well on this day, the spasms having increased in severity and frequency. As the bowels had not acted for four days, two grains of calomel and a drop of croton oil were ordered to be placed upon the back of the tongue. No result having followed this line of treatment, the purgatives were repeated, the administration of the opium and hydrate of chloral being stopped for the while. The patient, however, soon became worse. The tetanic spasms grew very much more violent, and the poor man suffered acute agony. The skin was covered with a cold clammy perspiration, and there was great anxiety. The slightest noise or movement in the ward was sufficient to bring on a paroxysm. Recourse was had immediately to the injections of opium and hydrate of chloral, and the effect was most marked. After a time the spasms became weaker and less frequent; the teeth, which had been clenched, became separated; nourishment was taken; the bowels acted; and the man said he felt better.

4th.—Bowels acted three times during the night. As he seemed very much improved the medicines were again stopped. After a while, however, the symptoms became alarming. The tetanic contractions were so strong that at one time he was literally shot off the bed on to the floor, and it was found necessary to obtain assistance in order to prevent him from again falling. The enema was administered without delay, and in a short time he became much calmer. Orders were given to keep up the action of the medicines.

5th.—Had frequent slight spasms at intervals. He complained of great pain in the chest. He was kept under the influence of the opium and hydrate of chloral throughout the day.

6th.—He passed a bad night, having had many spasms. Pulse 100; temperature 99·2°. During the day he became worse, and suffered a great deal. The quantity of liquor opii sedativus in the enema was increased to forty drops, and that of the hydrate of chloral to forty grains. This increase in the quantities of the medicines had a markedly beneficial effect.

7th.—Very much better. He took plenty of nourishment, and the bowels have acted freely. No spasm from 3 p.m. yesterday until 8 p.m. to-day.

9th.—He has much improved. The opium and hydrate of chloral ordered to be gradually decreased in quantity.

12th.—Very much better; but he still desired to take the medicines. He said he was afraid of the spasms returning were the drugs not administered, so convinced was he of their efficacy.

25th.—Discharged cured.

Case 3.—Edward W., a young negro, aged twenty years, was admitted into the Infirmary on August 13, with contused and lacerated wounds about the head and face, caused by a fall into the mill-pit of some sugar works. The left ear was very much lacerated, and almost dissevered from the head; a small strip of skin, about three lines in width, serving as its only connexion. The wounds were dressed, and an effort was made to save the ear by fixing it in position with numerous sutures.

August 20.—The wounds looked healthy, but most of the ear had sloughed away. He complained of great pain in the back.

31st.—He had several tetanic spasms early in the morning. Muscles of the back and abdomen very tense and hard; risus sardonicus; great anxiety. He complained of severe pain in the left side. Ordered a draught containing fifteen grains of hydrate of chloral and twenty drops of tincture of opium to be given at once, and to be repeated as soon as the effects of the medicines wore off.

September 1.—He slept fairly, but was awakened by spasms several times during the night. He complained of much difficulty in passing urine. There was very little trismus. At 5 p.m. he vomited the draught, and, as the symptoms increased in severity, an enema, composed of half a drachm of hydrate of chloral and the same quantity of tincture of opium in some rum-and-water, was ordered to be administered.

2nd.—Passed a fair night, but had a few spasms. As he still complained of strangury, a drachm of sp. ætheris nitrosi was ordered to be given occasionally in some syrup-and-water. He has continued to take nourishment very well. Bowels free. The action of the opium and hydrate of chloral was still kept up, for the symptoms increased in severity when the influence of the drugs wore off.

3rd.—He was worse on this day, the spasms being stronger and more frequent. Persistent rigidity of the muscles of the back and abdomen. Deglutition was difficult, and trismus was present. The slightest touch upon the cutaneous surface caused violent tetanic spasms. He complained much of the difficulty in making water. Ordered a drachm of sp. ætheris nitrosi, and fifteen drops of the tincture of hyoscyamus, which in a few hours caused a copious flow of urine. During the day the enemas were administered frequently, and the symptoms became less severe. The laudanum in the injections was ordered to be increased to forty drops, and the hydrate of chloral to forty grains.

4th.—He passed a good night. During the day he was enabled to take nourishment notwithstanding the slight trismus and difficult deglutition. He has passed large quantities of "red urine." The action of the medicines was kept up.

5th.—He was better, so orders were given to have the laudanum in the enemas decreased to twenty-five drops, and the hydrate of chloral to twenty-five grains.

6th.—He was not so well on this day, the symptoms having somewhat increased in severity since the decrease in quantity of the ingredients of the enemas. The laudanum and hydrate of chloral, therefore, were raised in amount to forty drops and forty grains respectively.

7th.—He was better on the morning of this day, but afterwards he could not retain the enemas, and he became worse; consequently, the medicines were ordered to be given in the form of a draught, and with marked beneficial effect.

8th.—He passed a good night. The draught was administered during the day. At night a draught of fifty drops of laudanum and forty grains of hydrate of chloral was given.

9th.—He was better on this day, the spasms being slight and coming on at long intervals. He took plenty of nourishment.

10th.—Better during the morning, but in the afternoon he had a most severe spasm. The limbs were bent, and the muscles rigidly contracted. Opisthotonus and trismus were present. The thorax was fixed, and great dyspnœa resulted. The surface was covered with a cold clammy sweat. The paroxysm lasted for nearly five minutes, and the suffering was very acute. The enema was administered at once, and the patient soon became calm.

11th.—No more spasms since the severe one on the previous day. He passed a good night, and took plenty of nourishment. The enemas were ordered to be stopped, and a draught containing twenty grains of hydrate of chloral and thirty drops of tincture of opium to be given instead.

14th.—Much better. He had two slight spasms on the 13th, but none on this day. The draught ordered to be given twice a day.

17th.—He said he had slight spasms, but it is evidently only the effects of imagination. He wished the medicines to be continued.

The patient was discharged convalescent on September 23.

Dominica, West Indies.

Deaf-Dumbness and Consanguineous Marriages.—In a paper read at the Madrid Academy of Medicine, Dr. St. Martin having examined into the condition of 551 infants resulting from 149 consanguineous marriages, comes to the conclusion that the belief which prevails of the danger of consanguineous marriages rests upon a very slender foundation. In support of this opinion, the *Independencia Medica* states that at the Deaf and Dumb School at Barcelona there have been admitted 253 children during thirty-one years, and of these only fifteen were the issue of consanguineous parents. —*Presse Méd. Belge*, May 14.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

LONDON HOSPITAL.

FOREIGN BODY IN WINDPIPE—A SUCCESSFUL METHOD OF OPERATION.

Mr. Maunder, on Friday, 12th inst., removed from the left bronchus of a boy, aged thirteen (an in-patient of the London Hospital), a smooth oval piece of glass an inch long, and forming part of a sleeve link. It had been in the trachea eighteen days without symptoms, and about thirty hours before operation had fallen into the left bronchus. After consultation with Dr. Down, tracheotomy was performed, the patient was inverted and shaken, but with no avail. A loop of stout silver wire was then passed six or seven inches through the wound downwards, and to the left; on the wire being withdrawn, the foreign body came with it. The patient is well.

CASE OF CONGENITAL ABSENCE OF RECTUM.

(Under the care of Mr. MAUNDER.)

[Reported by H. Habgood.]

The subjoined case will be interesting, following immediately upon one somewhat similar, recorded by Mr. Howard Marsh in the *Medical Times and Gazette* of May 20.

On Tuesday, May 16, Dr. Bate sent a female child, five days old, to see Mr. Maunder. There had been no evacuation from the bowel, but vomiting was frequent. The anus was well formed, and Dr. Bate, who had carefully explored this region with a scalpel, had failed to discover the rectum. Mr. Maunder extended the search, but also failed. He determined to open the abdomen through the left groin, with the hope of reaching the large intestine there.

Operation.—A longitudinal incision, about three-quarters of an inch in length and a finger's-breadth internal to the left antero-superior spine of the ilium, was made through the integuments. The muscles and transversalis fascia were divided to a somewhat less extent, and the peritoneum least of all. A few drops of clear serous fluid escaped, and bowel having a sacculated appearance presented. Half a dozen very fine sutures, made of Chinese twist, fastened the peritoneal coat alone of the bowel to the edges of the wound. The intestine was now opened longitudinally to the extent of about one-third of an inch, and its contents escaped. The margins of the incision into the intestine were then stitched to the wound by four silk sutures.

May 23.—The infant is in capital health, a week after operation.

Clinical Remarks.—Mr. Maunder said that in cases of this nature the surgeon should proceed first, as Dr. Bate had done, to endeavour to find the occluded bowel at the site of the anus, and with a view to establish a permanent opening there. Failing this, obstruction must be relieved through the anterior abdominal wall. Mr. Curling and others have demonstrated that in these instances of abnormality the descending colon will probably be found with a long meso-colon, and, if so, it could not be reached by Amussat's operation; it should therefore not be attempted. The kidney, too, is another element of objection. The alternative consisted in the operation above described. Doubtless, section of the peritoneum should, even with the known progress of abdominal surgery, be regarded as an element of danger. Beyond section of the abdominal wall and the most careful manipulation no interference was practised—not even a director was used,—and the intestine was not allowed to protrude. Mr. Maunder drew special attention to these details, and expressed the belief that the risk of peritonitis will be greatly diminished thereby. In support of this view he mentioned the fact that he had only advised the making of an artificial anus *through the peritoneum* in the groin four times, and all the patients had recovered from the operations. In three of these (one an adult) he had operated himself. The adult, aged sixty-eight, is still alive, six months subsequent to operation. He had performed lumbar colotomy—the alternative operation on the adult—twelve times; but this belonged altogether to another category, as the peritoneum was rarely, and ought scarcely to be, wounded in this region.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MAY 27, 1876.

THE GENERAL MEDICAL COUNCIL.

In recording that the General Medical Council has again met for the despatch of business, the first thing to be noticed is the number of changes that have taken place in it. Two most valuable members—Dr. Warburton Begbie and Dr. Parkes—have been lost to it by death, and two—Dr. Sharpey and Dr. Risdon Bennett—by resignation. All four will be greatly missed, and their absence deeply regretted; but both the Council and the profession may, on the whole, be congratulated on the way in which the vacancies have been filled up. The vacancy created by the retirement of Dr. Bennett has, as we announced last week, been filled up by the appointment of Dr. Pitman, the highly esteemed and respected Registrar of the Royal College of Physicians of London; and it would have been difficult indeed for her Majesty to have sent to the Council three better men than Mr. Lister, Mr. John Simon, and Mr. T. Pridgin Teale. The first is a man of European fame, as well as one of the most eminent representatives and teachers of surgery in the northern division of the kingdom. Of Mr. Simon it would be almost impertinent to speak, even to praise him, his high qualities and capacities are so well known: for years he has rendered great service to the Crown and the country, and he will bring to the aid of the Medical Council a very full knowledge of medical affairs, long and large official experience, and powerful influence; while Mr. Pridgin Teale's appointment will be hailed with applause as a just recognition of the claims of our provincial practitioners to be represented on the Council (and it will be remembered, by-the-bye, that Mr. Teale's father was one of the first Crown nominees on the Council), though it may perhaps be said that the Crown would have done still better had a representative of the obstetricians or of the general practitioners been nominated. Another change also will have to be made. Dr. Francis Hawkins, who has with so much courtesy filled the office of Registrar since the Council was first constituted eighteen years ago, has given notice of his intended resignation. His retirement will be much regretted; and it will, we imagine, be a question whether his office shall be filled by a member of the profession or by a layman. Dr. Pitman has already been appointed Treasurer in the place of Dr. Bennett.

After the introduction of the new members of Council, the President delivered the clear and able Address which will be found at length elsewhere in our pages. Some idea may be obtained from it of the amount and nature of the business that will be brought before the Council, and it certainly does not hold out any hope of a short session. It will be observed that the President speaks of the necessity that will arise for the Council "to take a broad view of the relation in which the medical student of our day stands to modern wants, modern science, and modern division of professional labour." And in connexion with this he draws attention to the curious and very noteworthy fact that in England the proportion of medical men to the population is gradually decreasing. In the Supplement to the Thirty-fifth Report of the Registrar-General it is stated that the proportion of medical men was in 1851, 9·7 to every 10,000 living; in 1861, 8·3; and in 1871, only 7·8; while in the army 49 per 10,000 are required. Dr. Farr has further written to the President, saying—"The medical attendance for the people of England was extremely defective in 1851, and it is still more defective in 1876. The danger is that it may grow quite inaccessible to vast numbers of the people. We know how this arises. Everyone in the profession wishes to see every man in it instructed up to the highest standard." In Scotland also, as in England, the number of medical men has diminished, and in 1871 was as low as 5·2 per 10,000; but in Ireland the proportion has increased from about 4 in 1851 to 6 per 10,000 in 1871. Will this, we wonder, be in any way considered an Irish grievance? The President very justly notes that should it be proved "that the supply of medical men is inadequate, and that the poorer classes especially are attended by unregistered practitioners," it may become proper for the Council to inquire whether this may arise from the examinations being "undesirably deterrent," or from defects in the professional or the preliminary education of the students, it being a main object of the Council "to insure such a test of a sound minimum education in each branch of the kingdom as can be relied upon not so much for its severity as for its wisdom, and which the Council may feel sure is the fittest preparation for actual practice and daily life." Communications have been made to the Executive Committee respecting imperfections in death certificates, and difficulties that have arisen with regard to certificates of proficiency in vaccination, and these subjects will come before the Council. In speaking of the Conjoint Scheme matter, the President noted that the last amended Scheme for England had not been accepted by all the bodies concerned, and observed that "the only Scheme now before the Council is that of 1874, which is not cancelled, but, also, is not in operation. There is, therefore, no motion on the subject before the Council, and there is no "Conjoint Scheme for England." It is still, therefore, a fact, Dr. Acland observes, "that a qualification either in medicine or surgery entitles students to be placed on the Register"; but to this he rightly adds that "the English College of Physicians now adds surgery and midwifery to its medical examinations, and is recognised as conferring a qualification in surgery and midwifery as well as in medicine, and the College of Surgeons adds medicine to its surgical examinations when a candidate has not a medical qualification." Dr. Acland then refers to Bills which are, or will be, before Parliament, and which will demand consideration by the Council. Mr. Cowper-Temple's Bill is the same as that of last year, and as the Council then pronounced

strongly against it, and it received no support from Government, it may be supposed that it will not need much attention now. Mr. Gibson's Bill deals with the equality of qualification for certain offices in Ireland, and with the registration of public health diplomas or certificates as additional qualifications. The Government has requested the opinion of the Council on the merits of this Bill, and it may be expected that this will be favourable in respect of the latter of the two objects of the Bill; with regard to the former the Council must wait for information before they can form any opinion. Two other Bills will, however, require very grave and attentive consideration; first, Lord Carnarvon's Bill, which might be rightly named a "Bill for the Suppression of Experimentation on Animals for Scientific Purposes." It will be seen from our report of the proceedings of the Council that Mr. Lister moved for the appointment of a committee to consider this Bill. Some discussion took place as to whether the matter was one which the Council had any right or power to meddle with, but the motion was agreed to, and an excellent committee appointed, consisting of Mr. Lister, Dr. Rolleston, Dr. Humphry, Mr. Turner, Dr. Thomson, Mr. Macnamara, Sir William Gull, Mr. Simon, and Mr. Teale. The second of the Bills referred to above is one to which we alluded in our last week's issue, viz., one to be introduced by Mr. Russell Gurney, with the object of enabling, though not of requiring, the existing licensing bodies to admit persons to examination without regard to sex. This Bill will be submitted to the Council by desire of the Lord President of the Privy Council, who desires to have the opinion of the Medical Council upon it; and we may well refrain from any remark on its intention and scope till we have had an opportunity of reading it.

The programme of business for the meeting of the Council contains several subjects, besides those already mentioned, that will probably occupy not a little time—such as the communications from licensing bodies on the reports of visitors, and "Observations on the Recommendations and Opinions of the Medical Council from Licensing Bodies." These will, no doubt, lead to a great amount of talking and—if we may be permitted to say so—of sparring. The New Army Medical Warrant has been already dealt with, by being moved out of the way, the Council having declined to take it into consideration. Professor Harvey has addressed to the President a letter "concerning Materia Medica"; and a memorial has been addressed to the Council by English registered practitioners, who are also graduates in medicine of foreign universities, praying that these foreign degrees may be registered as additional qualifications. On this last subject we beg leave to reserve comment, but we may remark that if the Council consent at all to the prayer of the petitioners, it will, we imagine, be necessary to institute a schedule of the universities the degrees of which can be admitted to registration, and it must be difficult to obtain always the desirable information as to the value of the respective degrees. It is to be observed that this boon is only asked for those who are already duly qualified registered practitioners. We observe also that Dr. Haldane has given notice of motion on an important subject in connexion with the general education of candidates for qualifications to practise. He is to propose "That it be recommended to the various licensing bodies to instruct their examiners in professional subjects, to report to them any cases of decided ignorance in general education displayed by candidates, with the names of the board or boards before which the preliminary examinations have been passed," and these reports are to be transmitted to the Registrar of the General Medical Council. Altogether the work proposed to be done during the session is enough to require very close and diligent attention in order to get through it. There will be no time to spare for unnecessary talk or contentiousness.

ENTERIC FEVER AT CROYDON IN 1875.

Dr. Buchanan's Report, which is too long for us to publish *in extenso*, is marked by the clearness which characterises his writings, and affords another instance of the scientific accuracy with which the details of even an extensive epidemic of this disease may be worked out, and of the comparative completeness of our knowledge of the ways in which it spreads, and of the means to be used for stamping it out.

During the year there were in Croydon parish ninety deaths from "fever," and about 1200 cases in a population estimated at 63,000. The 1164 cases actually on the returns sent in by the medical men occurred in 959 houses out of the 11,526 houses in the parish. These figures show the extensive nature of the epidemic, which was marked by two maxima—one in April, when 186 houses were attacked; and the other in October, when cases were recorded in no less than 275 houses. These houses were almost all connected with one of the two "systems of distinctively Croydon sewers," and most of them belonged to the Beddington sewer system, on which 905 houses (or one in every ten) were attacked. This fact alone would make it clear that there must be considerable defects in the sewerage arrangements, and in the connexions of the houses with the sewers; and such was found on examination to be the case. Although much has been done of late years to improve the efficiency of the Croydon sewers, yet "there are many local defects, and some important general defects, in the Croydon arrangements. Many of the older town sewers remain, some being admittedly unequal to the demands made on them by the growth of the town." The flushing arrangements are insufficient, and the ventilating shafts few and far between. The house drains are, as a rule, connected directly with these ill-ventilated sewers, without the intervention of any kind of trap; and although the soil-pipes are "habitually more or less ventilated," and the waste-pipes of sinks, etc., "disconnected," there are even in the better houses such defects as "hidden cracks in pipes, overflow-pipes going into soil-pipes, ventilation-pipes zigzagged so as to prevent any air-current through them, or opening near to some window," while "in poorer houses, where all closets are outside and all sinks disconnected, the closet drain is sometimes found to have a fracture in it, or the outside gully to be untrapped."

In a large number of instances it was found that fever cases occurred in houses with such sanitary defects, and the conclusion was inevitable that in the majority of instances the fever had been spread "by the escape of infected air from the sewers, and its inhalation by persons susceptible of the disease"; and it must be remembered that the air that does get into a house from the drain is, in Croydon, the air from the common sewer, which is, in the words of the Report, "as it were 'laid on' to houses."

It was suspected by some persons that the milk of cows fed upon sewage-grass might have been the cause, or one of the causes, of the mischief; but on investigation it turns out that there is "no ground for suspecting that milk has played any part in the epidemic."

The water-supply of Croydon is unexceptionable, being derived from deep borings into the chalk, and yet during the course of the inquiry it became clear that certain cases were caused by contaminated water; and not only so, but by water contaminated while in the water-pipes. This may have happened in the following ways:—(1) The valves by which the sewers are flushed from the main water-pipes being defective; (2) the water-pipes lying in the same trenches with sewers or drains, and both leaking; and (3) the direct connexion of water-closet supply-pipes with the water mains, the service being effected by mere hand-taps. When the mains are full there is perhaps little chance of contamination of the water in them, but during times of intermission of water-

service foul air has certainly been drawn into the water mains, and probably foul liquids too. The great increase of the epidemic at the end of March and beginning of April "was significantly related" to the frequent intermissions of the water-service during March; at the same time, we must not assume that foul matters cannot get into the pipes, under certain circumstances, even during constant service, and thus "it is necessary that water-pipes should everywhere be kept away from all relations with sewers and drains."

The recommendations are suggested by the defects pointed out, and one of the most important is that the sewers and house-drains should be efficiently ventilated, so that there may be no foul air to get into the houses. As regards the water-service, the pipes must be separated as much as possible from the drains, and must on no account have any direct connexion with them, or with water-closets; the flushing, which requires to be better done, must be done in some other way.

It is satisfactory to learn that the recommendations of the Report have been, to a great extent, anticipated by the Local Board, and that "there has been a very rapid subsidence of fever in Croydon, amounting almost to a disappearance of the epidemic."

The mode of introduction or "other origin" of the fever is not considered in the Report, and, indeed, in so large a community it would be almost a hopeless attempt to try to find out where the first case appeared, and whence it hailed; there is ample proof that favourable conditions for the spread of the fever were present, and that the fever has abated upon the adoption of the proper precautions, among which we ought to mention the use of perchloride of iron as a disinfectant in the sewers. It really seems as if the defects pointed out in the Report—many of them, at any rate—ought not to have existed, but we suppose that it will yet be long before even a community (like that at Croydon) alive to the importance of sanitary matters will set its house in order without first having a lesson such as the recent epidemic of enteric fever at Croydon has been.

A BILL INTITULED AN ACT TO PREVENT CRUEL EXPERIMENTS ON ANIMALS.

Lord Carnarvon has introduced into the House of Lords a Bill with the above title. This Bill is apparently founded on the report of the Royal Commission which sat some time ago. It seems to have been received fairly well in the House, though the Duke of Somerset, with his usual pungency, exposed many of the crotchets and fallacies contained in it. We have something more to add. The circumstances of the Royal Commission must be fresh in the minds of our readers. Certain exaggerated reports had been busily circulated, and had awakened strong feelings in the minds of some of the weaker-minded of the community. The Commissioners, however, in their report made it clear that anything like systematic or unnecessary cruelty was hardly known in this country, especially among those engaged in the important duties of teaching medical students. Their report was a fair one, as far as it was signed by the whole of the Commissioners, and physiological inquirers were content that a moderate measure should be passed, if only to satisfy the minds of the public. How far the present Bill is likely to fulfil these conditions we shall presently see, but the very title of it, aimed as it is at a small body of men who may fairly claim the position and treatment of gentlemen, is almost insulting—"This Act may be cited for all purposes as the Cruelty to Animals Act, 1876." When we consider the class of people who have been heretofore prosecuted under an Act with a very similar title for the brutal ill-usage of domestic animals for no purpose under the sun, we may surely suggest that the title of the proposed Act has been badly chosen. Almost every clause in the Bill is objectionable, whether as regards restrictions or certificates; but our readers shall judge for themselves:—

"A person shall not perform on a living animal any experiment calculated to give pain, except subject to the restrictions imposed by this Act. Any person performing or taking part in performing any experiment calculated to give pain, in contravention of this Act, shall be guilty of an offence against this Act, and shall, if it be the first offence, be liable to a penalty not exceeding £50; and, if it be the second or any subsequent offence, be liable, at the discretion of the court by which he is tried, to a penalty not exceeding £100, or to imprisonment for a period not exceeding three months.

"The following restrictions are imposed by this Act with respect to the performance on any living animal of an experiment calculated to give pain; that is to say, (1) the experiment must be performed with a view only to the advancement by new discovery of knowledge which will be useful for saving or prolonging human life or alleviating human suffering; and (2) the experiment must be performed in a registered place; and (3) the experiment must be performed by a person holding such licence from one of her Majesty's Principal Secretaries of State, in this Act referred to as the Secretary of State, as is in this Act mentioned; and (4) the animal must during the whole of the experiment be under the influence of some anæsthetic of sufficient power to prevent the animal feeling pain; and (5) the animal must, if the pain is likely to continue after the effect of the anæsthetic has ceased, or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anæsthetic which has been administered; and (6) the experiment shall not be performed as an illustration of lectures in medical schools, hospitals, colleges, or elsewhere; and (7) the experiment shall not be performed for the purpose of attaining manual skill. Provided as follows; that is to say, (1) experiments may be performed under the foregoing provisions as to the use of anæsthetics by a person giving illustrations of lectures in medical schools, hospitals, or colleges, or elsewhere, on such certificate being given, as in this Act mentioned, that the proposed experiments are absolutely necessary for the instruction of the persons to whom such lectures are given with a view to their acquiring knowledge which will be useful to them for saving or prolonging human life or alleviating human suffering; and (2) experiments may be performed without anæsthetics on such certificate being given, as in this Act mentioned, that insensibility cannot be produced without necessarily frustrating the object of such experiments; and (3) experiments may be performed without the person who performed such experiments being under an obligation to cause the animal on which any such experiment is performed to be killed before it recovers from the influence of the anæsthetic on such certificate being given, as in this Act mentioned, that the so killing the animal would necessarily frustrate the object of the experiment, and provided that the animal be killed as soon as such object has been attained; and (4) experiments may be performed not directly for the advancement by new discovery of knowledge which will be useful for saving or prolonging human life or alleviating human suffering, but for the purpose of testing a particular former discovery alleged to have been made for the advancement of such knowledge as last aforesaid, on such certificate being given as is in this Act mentioned that such testing is absolutely necessary for the effectual advancement of such knowledge.

"The substance known as urari or curare shall not for the purposes of this Act be deemed to be an anæsthetic.

"Notwithstanding anything in this Act contained, an experiment calculated to give pain shall not be performed on a dog or cat.

"Every place for the performance of experiments under this Act shall be approved by the Secretary of State, and shall be registered in such manner as he may from time to time by any general or special order direct.

"The Secretary of State may license any person whom he may think qualified to hold a licence to perform experiments under this Act. A licence granted by him may be for such time as he may think fit, and may be revoked by him on his being satisfied that such licence ought to be revoked. There may be annexed to such licence any conditions which the Secretary of State may think expedient for the purpose of better carrying into effect the objects of this Act.

"Any person performing experiments under this Act shall from time to time make such reports to the Secretary of State

of the result of such experiments, in such form and with such details as the Secretary of State may require with a view to the making such experiments useful for saving or prolonging human life or alleviating human suffering.

"The Secretary of State shall cause all registered places to be from time to time visited by inspectors for the purpose of securing a compliance with the provisions of this Act, and the Secretary of State may, with the assent of the Treasury as to number and salaries, appoint any special inspectors at such salaries as he may think expedient, or may from time to time assign the duties of any such inspectors to such officers in the employment of the Government, who may be willing to accept the same, as he may think fit, either permanently or temporarily, and may, with the assent of the Treasury, assign to them such remuneration for their services as he thinks just.

"A certificate given as in this Act mentioned must be signed by one or more of the following persons—that is to say, the President of the Royal Society; the Presidents of the Royal Colleges of Surgeons in London, Edinburgh, or Dublin; the Presidents of the Colleges of Physicians in London, Edinburgh, or Dublin; and also (unless the applicant be a professor of physiology, medicine, anatomy, or surgery in a university in Great Britain or Ireland, or in a college in Great Britain or Ireland, incorporated by royal charter) by a professor of physiology, medicine, anatomy, or surgery in a university in Great Britain or Ireland, or in a college in Great Britain or Ireland, incorporated by royal charter. Provided that where any person applying for a certificate under this Act is himself one of the persons authorised to sign such certificate, the signature of some other of such persons shall be substituted for the signature of the applicant. A certificate under this section may be given for such time or for such series of experiments as the person or persons signing the certificate may think expedient. A copy of any certificate under this section shall be forwarded by the applicant to the Secretary of State, but shall not be available until one week after a copy has been so forwarded. The Secretary of State may at any time disallow or suspend any certificate given under this section.

"The powers conferred by this Act of granting a licence or giving a certificate for the performance of experiments on living animals may be exercised by an order in writing under the hand of any judge of the High Court of Justice in England, of the High Court of Session in Scotland, or of any of the superior courts in Ireland, including any court to which the jurisdiction of such last-mentioned courts may be transferred, in a case where such judge is satisfied that it is essential for the purposes of justice in a criminal case to make any such experiment."

These provisions are, in almost every instance, an injustice moreover, the proposed law is so severe that it is likely to defeat its own ends: it will lead to secrecy, evasion, and flight to the Continent. But to the whole of its provisoes we must again return.

THE WEEK.

TOPICS OF THE DAY.

A MEETING has been recently held at the Co-operative Hall, Ardwick, to determine on a petition to Parliament for the repeal of the compulsory law regarding vaccination; but we should not have seen any reason for noticing the circumstance had it not been for the two letters which were read to the meeting. The first was from Mr. Gladstone, and was as follows:—"I regard compulsory and penal provisions, such as those of the Vaccination Act, with mistrust and misgiving, and were I engaged on an inquiry I should require very clear proof of their necessity before giving them my approval; but I am not able to undertake to enter upon an examination of the question." The second letter, from the Bishop of Manchester, is straightforward, and very much to the point; but then it should perhaps be taken into consideration that a Bishop has no such temptation to spread his sails to catch the breath of popular opinion as may beset a statesman and ex-Premier. It runs thus:—"You, properly, are prepared to argue the vaccination question on the simple basis of ascertained facts. According to the preponderance of these, one way or the other, so let the conclusion be. The vaccination question has become one of primary sanitary importance, if the facts alleged can be substantiated. They do not, however, prove to my mind that vaccination is mischievous—indeed, its benefits seem to me to be established by an overwhelming mass of evidence,—but simply that vaccine lymph is often poisoned; in which case, of course, it must be mischievous, and may be fatally mischievous. My opinion is not changed upon the subject of the prophylactic efforts of vaccination when properly administered, nor as regards the necessity of the proper conditions being observed in the administration—namely, that the lymph is procured from a healthy subject, and that the child is in a proper state to receive it into its system. I should, however, be unfeignedly glad to see the question once for all disposed of in a full and fair discussion between competent representatives of the opposing schools." If we may take these utterances as the opinions of Church and State upon this much-vexed question, the former must be pronounced to be much in advance of the latter in its comprehensive reasoning on the subject.

At the last meeting of the Salford Board of Guardians it was stated that small-pox was on the increase in that borough. The Clerk reported that there were on the previous evening seventeen new, and twenty-eight old cases of small-pox in the Hospital. There were two cases in addition—one old and one new—that had since been received into the house, making a total of forty-seven cases at present under treatment. It was resolved that one or two wooden sheds should be erected in the garden attached to the workhouse, to be used by convalescent patients.

On Saturday last, in the presence of a distinguished company, amongst whom were Earl Cadogan, Earl Granville, Earl Shaftesbury, and the Bishop of London, the Princess Louise and Marchioness of Lorne reopened the Victoria Hospital for Sick Children, Gough House, Chelsea, which has been closed whilst undergoing extensive repairs. The cost of the improvements, which have been carried out under the superintendence of Mr. J. Thomson, architect, of Chelsea, will amount to about £3000. Her Royal Highness, accompanied by the Marquis of Lorne, was received on her arrival by the members of the Hospital Committee, and was by them conducted over the new portions of the building. After a special prayer had been offered by the Bishop of London, and some speeches had been made by Lords Cadogan, Granville, and Shaftesbury, the Princess declared the Hospital open; and her Royal Highness left amidst the strains of the National Anthem, played by the band of the Duke of York's School.

A case of supposed suicide on the part of a surgeon was reported last week. For some years past a Mr. Henry Home, a surgeon, has been living in West-square, Kennington, leading a quiet and easy life. He had, however, latterly been grieving over the loss of his son, late a surgeon in the army, and was unable to find out what had become of him, and whether he was alive or dead. Some four months ago he received information that his son had died four years since, leaving his property to a friend, without giving a thought to his father; and this so grieved the old gentleman that he gave way to fits of despondency and seemed to care little what ultimately became of him. His patients fell off gradually, and at length he became so destitute of money that, a month ago, he sought assistance from a Mr. Hawkins, who took him to live with him. The deceased appeared utterly broken in spirit; and although he never expressed any intention of committing suicide, it was thought that he might possibly do himself some mischief. Last week he left home, and a few hours afterwards was found at Peckham-rye with his throat cut. A razor was found lying beside him, and there seems little reason to doubt that in a fit of temporary mental derangement he took his own life.

The *Army and Navy Gazette* seeks to explain a statement which recently appeared in a contemporary as to the treatment of medical officers of the navy by the Prince of Wales. It would appear that on his Royal Highness lately visiting the flagship *Minotaur* in the Tagus, by some strange oversight the medical officers of the ship were not presented with the rest of the officers. The fact was brought to the notice of Sir Joseph Fayrer, who of his own accord brought the subject before his Royal Highness, and the Prince at once expressed his surprise at the circumstance, and for himself disclaimed all intention of passing any slight on the members of a profession of which he was a sincere admirer. The Admiral is said to be the person to blame; but we should be inclined to look higher still, and lay the blame upon the authorities at the Admiralty. If admirals' memories are so defective that they cannot remember *all* the officers under their command when Royalty is to the fore, some regulation might surely be framed to assist them upon the occasion. One thing is absolutely certain: until such time as the heads of the Army and Navy Departments are prepared to place medical officers on an equality in every respect with all other officers, they may issue Warrants and Orders in Council, but they will not secure recruits from the higher class of the profession.

At the ordinary meeting of the Metropolitan Board of Works, held last week, a report was presented from the Works and General Purposes Committee, stating that they had considered a letter from the Home Office, transmitting a letter from the Local Government Board with reference to the steps which should be taken to prevent the building of houses on foundations of dust and house-refuse, and requesting the Board to give effect to the suggestion of the Local Government Board as to legislation on the subject whenever a Bill to amend either the Metropolis Local Management Acts or the Metropolis Building Act shall be brought before Parliament. The question had on several occasions engaged the serious attention of the Board, more especially in connexion with the endeavours they have made to obtain an amendment of the existing legislation with reference to buildings in the metropolis; and it appeared the proper course would be to furnish the Secretary of State with full information as to the repeated applications which the Board have made to Parliament for that purpose, and also as to other steps which they have taken with a view to preventing the evils referred to. The Committee had prepared a draft-letter conveying this information, and expressed a hope that with the assistance of her Majesty's Government some speedy and satisfactory amendment of the law might be obtained. The Committee were, moreover, of opinion that, having regard to the great importance of the question, as affecting the sanitary condition of the metropolis, the Board should also seek an interview with her Majesty's Government, and point out to them the difficulties with which the Board have had to contend, and ask their assistance with regard to an amendment of the existing law.

Dr. Wilson, one of the leading practitioners of Devonport, whilst performing a surgical operation last week, punctured his hand. He was not affected by it at the time, and next day attended the Railway Demonstration Banquet; but he rapidly grew worse, and died last Sunday evening. It is somewhat of a coincidence that one of Dr. Wilson's brothers died from an exactly similar cause three years ago.

The Government having decided to institute an inquiry into the death of the late Mr. Bravo, the officials of the Treasury are to call before them everybody whose evidence can throw any light on the case. On Saturday last Mr. Joseph Bravo, step-father of the deceased, was in attendance, and gave some information. A number of the servants connected with the establishment of the deceased gentleman have been in communication with Mr. Poland. As the Home Secretary has already stated, neither trouble nor expense will be spared in the investigation of the Balham mystery.

Dr. Humphrey Sandwith makes a rather astounding assertion in a pamphlet he has just published on the "Water-Supply of London." He states that "the fountains of Trafalgar-square are furnished with pure water from wells nearly 400 feet deep near Charing-cross." The peculiar colour and opacity of the water, as well as the vapours it gives off, would certainly lead to the supposition that it was derived from a totally different source. The water as it is thrown up in the fountains has a sickly green hue, which detracts considerably from the idea of purity; whilst at certain times the smell would suggest a more intimate connexion with the London sewers than is quite consistent with an idea of sweetness. One tradition in the neighbourhood of the Square asserts that the fountains draw their supply from the neighbouring baths and washhouses, but if Dr. Humphrey Sandwith's investigations are correct this explanation must be abandoned; it will, however, be very generally admitted that if the supply is drawn from a depth of 400 feet it gets seriously contaminated before it reaches the surface in the basins of the fountains.

An old man named Asher, a herbalist, was brought up at the Town Hall, Leicester, on Monday last, on a charge of murdering Ann Gee by procuring abortion. On April 24 last she went with a neighbour to prisoner's house; the neighbour was ordered to leave the shop, and she did so, waiting outside for about two hours. When deceased got home she complained of being unwell, and became worse until she died on the 2nd inst. The neighbour went and saw the prisoner, whom she accused of killing Mrs. Gee, and asked for money to bury her; the prisoner then gave the woman ten shillings. The body was exhumed, and a post-mortem examination made by Mr. G. C. Franklin, surgeon, who found indications that abortion had taken place. The prisoner, who it appears was in the year 1855 sentenced to fourteen years' transportation for causing the death of a woman under similar circumstances, was remanded.

It may not be generally known to our readers that within the last few days the King of the Belgians has been pleased to confer upon Sir Henry Thompson the high grade of "Commander of the Order of Leopold"; and the same has just been transmitted to Sir Henry by the Belgian Minister.

The post of Surgeon-Oculist to the Queen in Ireland has been filled up by the appointment of Dr. Charles E. Fitzgerald, Ophthalmic Surgeon to Richmond Hospital, Dublin. The selection of Dr. Fitzgerald has caused some surprise in Dublin, as he is a very young man, having been qualified only since 1868.

THE REPRESENTATION OF THE MEDICAL PROFESSION IN LONDON SENATE.

We have received the following circular addressed to the members of Convocation of the University of London, with reference to the nomination of candidates for the vacancy in the Senate:—

"Dear Sir,—At the approaching meeting of Convocation, to be held on Tuesday, June 20, 1876, a list of three persons is appointed to be nominated, in order that it may be submitted to her Majesty for selection therefrom of a Fellow of the University. We beg to propose Sir William Jenner, Bart., K.C.B., M.D. Lond., D.C.L. Oxon., F.R.S., as one of the candidates to be put in nomination at this meeting. Medical graduates will not need to be reminded of the grounds upon which a hearty and wide-spread support to this proposition may confidently be expected, but, for the information of the graduates of other faculties, it may not be out of place if we refer very briefly to the qualities which have gained for Sir William Jenner the distinguished position he occupies in the

medical profession, and which appear to mark him as one more than ordinarily well fitted to render essential service as a member of the Senate of the University of London. To Sir William Jenner we largely owe the certainty with which we can distinguish between two forms of fever—typhus and enteric—that were formerly merged in one common term, by which they were designated but not identified. Out of this distinction, due so much to his sagacity and laborious exertions at the Fever Hospital, there has arisen an advantage to sanitary science, the importance of which it is impossible to exaggerate. The pathological differences which he clearly exposed served as a starting-point from which the etiology of the two diseases has been evolved; and with a knowledge of the cause the means of prevention have become a part of our everyday experience. The same precision and equal thoroughness in detail, resulting from unsparing labour in study, distinguish all the other contributions which he has made and still continues to make to medical science. As a teacher of clinical medicine Sir William Jenner, during his long career at University College, has attained a position second to none in the profession. Clear, precise, eminently practical, and determinedly honest, his clinique has always been a model of that form of tuition the most valuable of all in its power of influencing the minds of students. It is to his teaching that a very large number of the most distinguished graduates of this University are indebted for the habits of scientific exactness and energy of application by which their success has been acquired. Sir William Jenner owes to his professional reputation the confidence which he has so long enjoyed as her Majesty's private physician. He has never suffered the onerous claims of this position to interfere with his career as a student of science, an accomplished physician who has largely enriched the literature of practical medicine, and a professor who has ever been ardent in the cause of improvement in medical education. If you agree with us in our opinion of Sir William Jenner's qualifications for the office of Fellow, we shall be obliged by your signing the accompanying paper, and transmitting it at once to the Clerk of Convocation, unsealed.—We are, dear Sir, yours faithfully, Robert Barnes, M.D.; Thomas Buzzard, M.D.; C. Hilton Fagge, M.D.; J. Cooper Forster, M.B.: Wilson Fox, M.D.; Julian Goldsmid, M.A., M.P.; H. G. Howse, M.S.; George Johnson, M.D.; Richard Quain, M.D.; J. Russell Reynolds, M.D.; Francis Sibson, M.D.; Samuel Wilks, M.D."

We are glad to see that this circular is signed by both Dr. Barnes and Mr. Cooper Forster, for, whatever may be the claims of any other graduate of the University, we suppose it must be allowed that they pale before those of Sir William Jenner. We have heard it said that Sir William will, some day, be nominated by the Crown; but to this it may be well replied that the Crown has not used an opportunity to nominate him; and we believe that he objects to entering the Senate except on nomination by his fellow-graduates. We should think they will be eager to honour their body by so honouring him.

THE POST-MORTEM APPEARANCES OF THE STOMACH IN ARSENICAL POISONING.

Dr. Robert Harvey, Surgeon in the Bengal Army, publishes in the *Indian Medical Gazette* an analysis of a large number of cases of poisoning by arsenic which occurred among the native population in India during the years 1870, 1871, and 1872, in which he gives some valuable information respecting the appearances presented by the mucous membrane of the stomach in different cases. He states that in the fatal cases the chief morbid appearances were, as usual, found in the stomach and bowels. In 150 out of 197 cases the stomach is noted as inflamed or greatly congested; in six it was slightly congested; and in thirty-six cases the Civil Surgeons who made the reports gave no particulars, or merely stated that the "usual appearances" were found. The degree of inflammation observed varied from a slight blush of redness to a deep ecchymosis covering the whole surface of the mucous membrane, and giving it an appearance resembling red velvet or port wine. In a large number of cases the inflammation was more limited, sometimes being confined to three or four spots, most commonly situated about the cardiac end, but in several cases near the pylorus, with or without radiating streaks of congestion following the lines of the rings. In one case the stomach was almost gangrenous, and in another the pylorus was thickened and gangrenous. According to the best authorities this last-named result is a very rare occurrence in arsenical poisoning. In ten cases the inflammation led to ulceration. This probably only takes place when a large quantity of the poison is taken on an empty stomach. Yellowness of the mucous membrane—the result of partial conversion of the arsenic into sulphide or of an admixture of bile—was frequently observed, and in several instances the stomach looked as if coated thickly with yellow paint. A green colour not unfrequently replaced the yellow. This was, doubtless, due to altered bile. In other cases the contents of the stomach were of a dark grumous or chocolate colour from extravasated and altered blood. It must, however, be remembered, says Dr. Harvey, that there is a class of cases, rare indeed, but sufficiently attested, where the arsenic exercises its powers primarily and exclusively on the nervous system, the patient dying, often rapidly, in a state of profound collapse or coma, and in which no local lesions whatever are found in the stomach or bowels. A non-congested stomach does not contraindicate arsenical poisoning. This point is of great importance and should never be lost sight of, lest the true cause of death be overlooked. Chemical analysis will generally set the matter at rest, and should be resorted to in all cases of suspected arsenical poisoning when no local lesions are apparent unless some other cause of death is plainly made out. In one case recorded in the returns under notice the only abnormal appearance was slight congestion of the brain and lungs. In another the mucous coat of the stomach exhibited no trace of inflammation, although arsenic was found in its contents on chemical analysis. In another the whole of the intestinal tract was healthy; and "nothing suspicious" was observed in another, although on analysis the stomach was found to contain arsenic.

THE BRITISH MEDICAL BENEVOLENT FUND.

The annual report of the Committee of the British Medical Benevolent Fund has just been issued, from which it is gratifying to learn that this charity is being well supported by the profession, and is the means of affording substantial relief to many members of the medical profession and their families who happen to be in temporary distress. During last year 126 cases were relieved, the total sum distributed in grants being £1295 10s. The Committee return special thanks for the following donations received during 1875:—Mr. Erasmus Wilson, F.R.S., £105; Dr. Warburton Begbie (the late), £105; Dr. C. Shrimpton, £100; the Sydenham District Medical Society, £52 10s.; Sir William Gull, £50; and Dr. Begley, £50. The Committee also desire to express the regret felt by all the members at the loss sustained by the charity through the death of Mr. Churchill, who from its institution manifested great interest in the Fund, and rendered important services throughout up to the time of his death. By the will of Mr. Churchill the Fund will receive a legacy of £500.

THE "THREE COUNTIES' ASYLUM."

The Committee of Visitors of the "Three Counties' Asylum" (Bedford, Hertford, and Huntingdon) have just issued their annual report for the year 1875, in which they speak most favourably of the general management of the Asylum, and express high approval of the services of Dr. Edward Swain, who was appointed Medical Superintendent on the resignation of Mr. Denne in November, 1874. During the year 168 patients were admitted, seventy-nine were discharged, and eighty-one died, leaving 721 patients under treatment at the end of the year. Notwithstanding that increased accommo-

dation was provided for 180 patients a few years ago, the pressure on the wards is now very great. Two years ago a contract was made with the Holborn Union to receive fifty patients at a rate of 14s. a week, but in consequence of the crowded state of the Asylum it is found necessary to rescind the contract. The increased number of admissions is chiefly due to the transference of chronic and harmless cases from workhouses to the Asylum since the passing of the Act of Parliament granting an allowance of 4s. per week towards the maintenance of pauper lunatics in county asylums.

THE ILLNESS OF SIR WILLIAM FERGUSSON.

For several months past the innumerable friends of Sir William Fergusson have observed with some uneasiness that he was losing flesh and strength, but not till very lately has it been at all generally supposed that he was seriously out of health. Now, however, we deeply regret to state, he is confined to his room, and his condition is such as to cause grave anxiety. A few months ago, we believe he consulted his friend and colleague Dr. George Johnson, who found that he had hypertrophy of the heart and albuminuria; and very lately dropsy came on. During the last fortnight Sir George Burrows has assiduously attended him with Dr. George Johnson, and a few days since Sir William Jenner also saw him together with those gentlemen. We trust that we may soon have the pleasure of hearing that their skill has had the happy effect of decidedly relieving the symptoms from which Sir William Fergusson is now so seriously suffering.

THE WATER-SUPPLY OF THE METROPOLIS FOR THE MONTH OF APRIL.

The official report of the examinations made of the water supplied by the Metropolitan Water Companies during the month of April last, shows that the water in the river Thames at Hampton, Molesey, and Sunbury (where the intakes of the West Middlesex, Grand Junction, Southwark and Vauxhall, Lambeth, Chelsea, and East London Companies are situated) was in a turbid condition during the first half of April, causing the water to be slightly stained; after which it improved, and became clear for the remainder of the month. The highest flood state of the river was two feet above the (six feet) summer level, and the lowest was eight inches above summer level. The highest temperature of the water taken at Seething Wells was 56°, and the lowest 42°; while the highest temperature of the air at the same place was 63°, and the lowest 37°. The condition of the water in the river was indifferent on nine, and bad on twenty-one days. These observations were made daily at 9 a.m. The various water companies are, as usual, reported upon in detail, but there are no novel circumstances recorded on which it is necessary to comment.

SANITARY CONFERENCE.

On Thursday and Friday, the 11th and 12th inst., a Conference, convened by the British Medical Association and the Social Science Association, was held at the Hall of the Society of Arts, in the Adelphi, under the presidency of Lord Aberdare. The Conference was numerously attended by medical officers of health, engineers, and surveyors, municipal representatives, sanitary officers, and others interested in the object of the Conference, from all parts of the country. We regret that the report of the proceedings has come to hand so late that, with the pressure on our space by the Medical Council session, it is impossible for us now to give any details of the speeches or the work done.

PARLIAMENTARY.—VIVISECTION—DRUGGING OF ANIMALS—POLLUTION OF RIVERS—VACCINATION.

In the House of Lords, on Monday, May 22,

The Earl of Carnavon moved the second reading of a Bill to control the practice of vivisection. He referred to the Bills on this subject introduced last session in both Houses of Parliament. The Royal Commission then appointed had concluded, in conjunction with the highest medical, surgical, and physiological opinions of the day, that some legislation on the subject was desirable. He referred at length to the practice of vivisection as carried on at the principal Continental schools of physiology, and said that the abuses committed in England were at most but a feeble reflection of what had been done abroad. The Secretary of the Society for the Prevention of Cruelty to Animals had paid a remarkable tribute to the greater humanity manifested in this country. He referred to the number of experiments performed in private, an estimate of which it was impossible to obtain. Senior students were more in the habit of visiting the Continental schools than formerly, and returning to this country prepared to adopt the modes and traditions of such schools. In many cases no anæsthetic was used, and at other times the animals were only partially under the influence of anæsthetics. To those who advocated the total abolition of vivisection he said "Do not let us pass an impossible law." In 1871 the British Association Committee reported that vivisection ought to be performed while the animal was under the influence of an anæsthetic; that it ought not to be performed merely for the purpose of investigating what was already known, and that everything ought to be done to insure its performance under the least painful conditions. Those recommendations were endorsed by the highest authorities, including Professors Darwin, Owen, Huxley, and Sir W. Gull. The only object which this Bill recognised as one to justify vivisection was the lengthening of human life or the lessening of human suffering. Many eminent men regretted the extent to which vivisection had been carried, and Dr. Nélaton had expressed himself as most unfavourable to the practice. However, the balance of testimony went to show that experiments in vivisection had tended to lengthen human life and lessen human suffering. As to the use of anæsthetics, only in rare cases were these to be omitted, and in such cases a certificate from certain professional authorities and the sanction of the Secretary of State would be necessary. The animal operated on must be put to death the moment the influence of the anæsthetic passed away if pain was suffered, with few exceptions. By Clause 5 there was an absolute immunity from vivisection in the case of dogs and cats.

The Duke of Somerset complained that a new definition of cruelty was described under the Bill; but he would undertake to say that in a single day's rabbit-shooting more pain would be inflicted than by scientific men in a whole year of physiological experiments. Pain was daily inflicted upon animals for purposes of amusement, curiosity, and vanity. Animals were sometimes subjected to cruel and painful operations, and would those operations come within the Bill? The "firing" of horses was a cruel operation, yet it was never attempted to administer anæsthetics during its performance. He was afraid that the effect of the Bill might be to increase those performances in private houses which they wished to prevent. If experiments were not made on animals, surgeons would experiment on man; they would, of course, make experiments on their patients, and it was probable that such experiments would be made on the poor rather than on the rich. It was a common practice, if anyone was suspected of having been poisoned by a pudding, to give some to a dog. But under this Bill that could not be done. The persons concerned might eat the pudding themselves, but they must not give it to a dog. In many cases it was not possible to use anæsthetics. In the case of a poison, an antidote, a new medicine, or an inoculation, you could not use an anæsthetic, because it would defeat your object, which was to see the actual operation of the specific under natural conditions. He assented to the principle of the Bill, which was subsequently read a second time.

The Drugging of Animals Bill was read a third time and passed.

In the House of Commons,

Mr. Brown gave notice of his intention to call attention to the final Report of the Rivers Pollution Commission, with special reference to the supply of water for domestic purposes.

Mr. Cross, in answer to Mr. Blake, stated that in sending two tradesmen to prison for breach of the Vaccination Act without issuing a distress on their goods the magistrates of Leicester had only acted within their powers. The men could no doubt have paid the fine if they had pleased. He was sorry to learn, however, that they had been handcuffed.

MEETING

OF THE

GENERAL MEDICAL COUNCIL,

HELD AT THEIR HOUSE, OXFORD-STREET, W.

FIRST DAY—WEDNESDAY, MAY 24.

THE annual session of this body commenced on Wednesday, the 24th inst., at the offices of the Council, 315, Oxford-street.

Dr. Acland, President, took the chair at two o'clock. The following new members were introduced, and took their places at the Council table:—Dr. Pitman, representing the College of Physicians, London; and Mr. Joseph Lister, Mr. John Simon, and Mr. Thomas Pridgin Teale, nominees of the Privy Council.

The PRESIDENT, in opening the business, delivered an address, which will be found elsewhere in our columns.

On the motion of Dr. ANDREW WOOD, it was resolved that the President's address be entered upon the Minutes.

The Business Committee, consisting of Dr. Andrew Wood (chairman), Dr. A. Smith, Dr. Leet, Dr. Haldane, and Dr. Pyle, was unanimously reappointed.

The following were appointed as the Finance Committee:—Dr. Quain (chairman), Dr. Pitman, Dr. A. Smith, Dr. Fleming, and Mr. Quain.

On the motion of Mr. TURNER, seconded by Dr. A. SMITH, Dr. Pitman was appointed Treasurer, *vice* Dr. Bennett, who is no longer a member of the Council.

The PRESIDENT: The following letter has been just placed in my hand:—"Medical Council Office.—My dear Mr. President,—I find it incumbent upon me to prefer, without further delay, my request to be allowed to resign the Registrarship of the General Medical Council at the termination of this, the eighteenth year of my holding it, which will be on November 25 next, provided that such an arrangement would not be inconvenient to the Medical Council.—I remain, my dear Mr. President, yours always most truly, FRANCIS HAWKINS." The President added that although this was the first public and official intimation on the subject, he had long been aware that they must this year lose the services of their Registrar, as to whose conduct in office there was but one feeling. He thought that it would be extremely undesirable to press the Registrar to continue an office which, after a long lapse of time, he now found had become too laborious for him.

It was resolved that Dr. Hawkins' letter be entered on the Minutes.

Dr. ANDREW WOOD said that the losing of their long-tried Registrar, whose extreme intelligence and courtesy and attention to his duties he (Mr. Wood), as the chairman of the Business Committee, had had, perhaps, more reason to know than any member of the Council, was a matter of very great importance. He was sure they all wished that Dr. Hawkins, in his retirement, would have health and happiness. They parted with him with great regret, for he had been their friend as well as their Registrar; but the best of friends must part, and time would not wait for Dr. Hawkins, although that gentleman had long preserved his youthful vigour. They had now to consider what steps they would take with regard to a successor to Dr. Hawkins; and it appeared to him—and he believed that it would be the general feeling of the Council—that, before proceeding to the appointment of a now Registrar, they ought to appoint a committee to consider carefully what were to be the duties of the Registrar in time to come, what his status, and what his emoluments. That was a question which would require serious consideration. His own opinion was that the appointment of a new Registrar was a thing which ought not to be hastily done. They would have the advantage of the services of Dr. Hawkins until November 25. If they were to proceed in a hasty way, without giving an opportunity for men of acknowledged business habits to come forward and offer themselves, they might, perhaps, act precipitately and detrimentally to the interests of the Council. In the meantime, he thought that the Council would agree to at once appoint a committee to consider carefully, as he had said, the duties, the status, and the emoluments of the Registrar in future. He therefore begged leave to move that such a committee be appointed, and shall report before the termination of the present sittings.

The motion was seconded by Dr. STORRAR, and carried unanimously.

The following gentlemen were appointed to act on such committee:—Dr. Quain (chairman), Dr. Pitman, Mr. Quain, Dr. Haldane, Dr. A. Smith, Dr. Lect, and Dr. Storrar.

Dr. QUAIN moved, and Sir WILLIAM GULL seconded—"That the following documents be entered on the Minutes:—Mr. Cowper-Temple's Bill, with resolution of King and Queen's College of Physicians in Ireland; Mr. Gibson's Bill, with resolution of King and Queen's College of Physicians in Ireland; letter from the Obstetrical Society of London, with President's letter to the President of the Royal College of Surgeons of England, and his reply thereto; Report on State Medicine Qualifications from the British Medical Association; and Memorial from English Practitioners possessing Foreign University Degrees."

Dr. AQUILLA SMITH said that, perhaps, the best thing would be to refer the documents to a committee.

Mr. TURNER said that the President had mentioned in his address that a Bill on the same subject as Mr. Cowper-Temple's Bill would be introduced into Parliament by Mr. Russell Gurney. Would it not be well for the Council to have that Bill before them, and let the Committee report on it, as well as on the other measure? Otherwise they might have to go over the ground twice.

The PRESIDENT said, with regard to Mr. Russell Gurney's Bill, that the Lord President of the Privy Council had transmitted to him a manuscript copy of the Bill, and it was marked "confidential." He therefore presumed that it would be irregular to have it put on the table for publication; but it would be in his power to read the manuscript, and submit it to the Council on the following day. That Bill consisted of only two clauses. No doubt it ought to be referred to the same Committee as that which considered Mr. Cowper-Temple's Bill.

Mr. TURNER said that it was proposed to remit no fewer than five subjects to one committee. It seemed to him that it would be better to appoint two committees—one committee for Mr. Cowper-Temple's Bill, Mr. Russell Gurney's Bill, and for the letter from the Obstetrical Society of London. The other committee could deal with the other subjects on the list. He thought that the subjects naturally grouped themselves in the way which he had indicated.

Dr. QUAIN said that the Executive Committee yesterday considered that there was a certain unity amongst the whole of the subjects, and that it would be less onerous and give a more connected view of the whole subject of legislation if one committee dealt with all the subjects.

Dr. STORRAR was in favour of referring all the subjects to one committee.

The motion for entering the communications on the Minutes was carried unanimously.

Mr. QUAIN moved, and Dr. APJOHN seconded—"That a committee be formed to consider and report on the various Bills and documents referred to in the last resolution."

Mr. TURNER moved an amendment to carry out the view which he had just expressed.

The motion was seconded by Dr. HALDANE.

Dr. ANDREW WOOD said that they ought to be as economical of their committees as they could, or they would not find sufficient members to serve on them. He was in favour of the whole of the subjects being dealt with by one committee.

The amendment was lost by a large majority, and the original motion was then carried without further opposition.

The following were appointed to serve on the committee:—Dr. Thomson (chairman), Sir William Gull, Dr. Andrew Wood, Mr. Simon, Dr. Pitman, Mr. Macnamara, and Mr. Quain.

Dr. QUAIN suggested that Mr. Russell Gurney's Bill should be referred to the same committee when it was put into the hands of the Council.

Dr. STORRAR thought that it would be better to deal with the Bill when they had got it.

Dr. HUMPHRY moved—"That the following communications from licensing bodies on the reports of visitors be entered on the Minutes:—The Royal College of Physicians, London, the Royal College of Surgeons of England, the University of Oxford, the University of Cambridge, the University of Durham, the University of Edinburgh, the University of Aberdeen, the University of St. Andrews, the King and Queen's College of Physicians in Ireland, the Apothecaries'

Hall, Dublin, the University of Dublin, the Queen's Colleges of Belfast, Cork, and Galway, and the Matriculation Board of the Queen's College, Galway." He proposed to add to the list a note to the effect that no communication had been received from the Queen's University of Ireland.

Sir Dominic Corrigan said that he could not answer for the Queen's College, but he was there as the representative of the Queen's University in Ireland. He believed that the observation as to no communication having been received from the Queen's University would apply equally to other bodies; but in the proposal of Dr. Humphry the Queen's University had been singled out as the only licensing body which had not made a communication. Was not there another licensing body which had not made a communication, namely, the Apothecaries' Hall of England? He was at a loss to understand why the Queen's University was singled out, and the Apothecaries' Hall of England had not been mentioned He should be glad to hear from the mover of the resolution what his reason was for selecting one body in particular to be held up to censure. That was not what he called equal justice. With regard to the statement that the other licensing bodies had sent communications on the reports of the visitors, the fact was that the communications sent by the University of Dublin, for instance, had been drawn up by the Professors in the University, and they were put forward at this Council as being a report from the Provost and Fellows of the University of Dublin.

Dr. Aquilla Smith said that the communication from the University of Dublin was drawn up by the Professors for the use of the Board, and the Board adopted it.

Sir Dominic Corrigan said that it turned out that the report was sent actually from the Professors in the School of Physic, and it had been adopted by the Board of the University. That Board would adopt anything which the Professors drew up, so that it was really a report of the Professors sanctioned by the Board.

Dr. Humphry pointed out that the Apothecaries' Hall of London replied last year. Sir Dominic had made a mistake in saying that no report had been received from that body. As to the University of Dublin being held up to censure, he (Dr. Humphry) simply proposed to state in the resolution the fact that no reply had been received. If Sir Dominic considered that to be a censure, probably he was aware of some good reason why it should be so regarded.

Sir Dominic Corrigan said that last year no notice as to omissions was appended to the communications which had been received.

The note as to the omission of the Queen's University of Ireland to send a communication was withdrawn from the resolution, and the other portion was then carried unanimously.

Dr. Andrew Wood moved—"That the communications mentioned in the last resolution be referred to the Committee on Visitations appointed June 18, 1875, and that Dr. Humphry act as chairman of that Committee, in place of Dr. Parkes, deceased."

The motion was seconded by Mr. Quain, and carried unanimously.

The Committee consists of Dr. Humphry (chairman), Mr. Quain, Dr. Apjohn, Dr. Quain, and Dr. Rolleston.

Mr. Lister moved—"That a committee be appointed to consider the Bill introduced by the Earl of Carnarvon on 'Cruelty to Animals,' and to report to the Council." He said that all those members of the Medical Council who had had Lord Carnarvon's Bill in their hands must be satisfied that it was a measure which demanded the serious attention of this Council. Two modes of procedure had been suggested to him. One was that he should move for a committee on the subject, and the other was that the Council should resolve itself into a committee of the whole house. He was quite willing to adopt whichever of these plans the Council might think best. He believed, however, that the appointment of a small committee would be an advantage, and it would enable the matter to be brought more accurately before the Council than it could be brought at the present moment.

Dr. Aquilla Smith suggested that first of all they should agree to take Lord Carnarvon's Bill as read. That step ought to take precedence of Mr. Lister's motion. He then moved "That a Bill entitled 'An Act to Prevent Cruel Experiments on Animals,' presented to the House of Lords by the Earl of Carnarvon, be read and entered on the Minutes."

Dr. Rolleston seconded the motion.

Sir Dominic Corrigan opposed their meddling with the Vivisection Bill at all, under any circumstances whatever. The Council was established for a particular purpose, and it was declared that its object was to regulate the qualifications for practitioners of medicine and surgery. The title of the Council was "The General Council for Medical Education and Registration," and the preamble of the Bill under which it was constituted said "whereas it is expedient that persons requiring medical aid shall be enabled to distinguish qualified from unqualified practitioners." Taking that view of their duties, and of the object for which they had been established, under what category could they possibly place a Bill for the prevention of cruelties to animals? If they went beyond their own sphere into a matter of that kind, they would be obliged to take up the game laws, ringing of pigs' noses, the best modes of shoeing horses, and various other matters in which cruelty might take place. He did not know where they should stop. He looked upon Lord Carnarvon's Bill as outside their province altogether. If they were to give an opinion one way or the other, the subject would give rise to an exceedingly lengthened report as to the circumstances under which animals might be either put to pain in the dissecting-room, or shot down for sport, or have their horns cut off in order that they should not be able to injure the hounds while being hunted. He saw such a wide field before them that, to his mind, there would be no end to an attempt to deal with the evil. His great objection to meddling with the matter was that it was *ultra vires*, and they were not entitled to take it up. He could not, for the life of him, see what the duties stated by the preamble of the Medical Act, under which the Council acted, had to do with Lord Carnarvon's Bill on cruelty to animals. Nor could he see why, if any Bill came to them asking their opinion on the subject, they should not reply that the question was one with which they had nothing to do.

Sir William Gull said he believed that his friend Sir Dominic Corrigan would be convinced that they ought to deal with the subject, if the truth was put clearly before him. He was surprised that Sir Dominic should think that the Bill had nothing to do with this Council. He (Sir William Gull) should say that nothing which concerned the Council more than this Bill could be brought before them. The third section of the Medical Act said that the Council should be styled "The General Council of Medical Education and Registration of the United Kingdom"; and the twentieth section showed that they were to take account of "the course of study and examination to be gone through." Sir Dominic had said that he could not, for the life of him, understand what they were assembled for, if it was not to enable the public to distinguish between qualified and unqualified practitioners. He (Sir William) entirely agreed with him; but how was a man to be qualified? He could only be qualified when he had knowledge, and he could not get the knowledge except through a proper course of study; and it was the duty of this Council to determine that the course of study should be proper and fit. He therefore felt sure that Sir Dominic, with his clear understanding, would see that the Bill was one with which the Council ought to deal. Who was a qualified practitioner? It required study in all possible directions to make a qualified practitioner. Sir Dominic Corrigan seemed to think that a man who had passed the examinations was a qualified practitioner. He was so—in a very qualified sense. It was the duty of the Council to supervise the course of study which should precede the examination, and they could not but feel anxiously interested in any course of legislation which might tend to throw impediments in the way of natural science, or to discredit its investigators and students. He would second Dr. Smith's motion that the Bill be taken as read, and entered on the Minutes.

Dr. Rolleston said that the preamble of the Bill indicated that the law for prevention of cruelty to animals was to be amended, by extending it to animals intended for medical, physiological, and scientific purposes. It was probable that he might disagree with what Professor Lister and others might say in reference to the Bill, but he was sure that every person who had an interest in the Medical Council would wish that the Council should give a deliberate opinion upon this very important matter. Regulations relative to experiments on animals had found their place already in the regulations issued by the various licensing bodies. For instance, the College of Surgeons had decided that the students themselves should not be expected to perform such experiments. Clearly, if the licensing bodies laid down regulations on the subject, it was a matter which was entirely within the province of the Council.

Dr. Pyle said that it seemed unnecessary to print the whole Bill in the Minutes.

Dr. Andrew Wood said that if the Minutes were to be of any consequence at all, they ought to be in such a form as to explain themselves when they were read; and such would not be the case if resolutions were passed with reference to the Bill, and the Bill itself did not appear on the Minutes. In that point of view, to grudge a few pounds in order to print the Bill would be very bad policy indeed. With reference to the opinion of Sir Dominic Corrigan, that they ought to give the Bill the go-by, and decline to discuss a subject which was exciting such universal attention, and which had such a material bearing on the education of medical practitioners, he (Dr. Wood) would ask why they should come up to London at all, if, as a council, they failed to exercise their functions with regard to everything which concerned the welfare of their profession? He did not at present give any opinion upon the Vivisection Bill, for they had not yet come to a discussion of its merits, but he must say that they would stultify themselves altogether as a council if it went forth to the public that the Vivisection Bill was brought before the body which had to regulate the medical education of the country, and that that body had declared that it was no part of their duty to entertain the subject. He therefore hoped that a large majority of the Council would determine to take the question into consideration, whatever they might say with reference to the Bill itself.

The motion for entering the Bill upon the Minutes was then carried.

Sir Dominic Corrigan suggested that it would be an advantage to the Council to adjourn for ten minutes each day at about four o'clock.

In accordance with this suggestion a short adjournment took place.

The Council having re-assembled,

Mr. Lister moved that the Earl of Carnarvon's Bill on cruelty to animals be referred to a committee, to consider and report upon it during the present session.

Dr. Humphry seconded the motion. He said that the question was clearly of the utmost importance in medical education, inasmuch as the subject to which the Bill referred lay at the very root of further advancement in the science of physiology and pathology. He was, therefore, extremely glad that it was the view of the Council that the subject ought to be taken into consideration, and he did not think that it could be considered in a better way than by reference to a committee. It was obvious that there were reasons why the proposals in the Bill should be carefully considered by a committee before the matter was brought before the General Council. He might observe that one of the clauses of the Bill stated that experiments should be performed only for the discovery of new knowledge which would be useful for the prolonging of human life or the alleviating of human sufferiug, and therefore the subject was one which specially belonged to the Medical Council. They had better not, however, go into any discussion on the points of the Bill before the committee had considered the measure, and brought forward such points as they thought it advisable to discuss.

The motion was then carried unanimously.

Mr. Lister moved that the following gentlemen be appointed as the committee:—Dr. Rolleston, Dr. Humphry, Mr. Turner, Dr. A. Smith, and himself (Mr. Lister).

The motion having been seconded,

Sir William Gull moved, as an amendment, that the committee for the consideration of the Bill be a committee of the whole Council. He said that he thought that they ought to have a committee consisting of all the members when they had before them a measure of so much importance, and one upon which the Government had issued a Royal Commission. The question, as Dr. Humphry had said, lay at the root of the future of medical training. Although he was, unfortunately, out of that line of study at the present moment, he felt intensely interested in it.

Dr. Storrar seconded the amendment. He was under the impression that they would get sooner to the end of the question by having an open discussion before the whole Council. Then, after the views of the Council generally had been brought out, the matter could be referred to a smaller committee. He believed that if a small committee was appointed in the first instance, there would be a very wide discussion, which would involve a large variety of amendments in the General Council, and the question would be complicated.

Mr. Turner recommended the course which was followed last year with reference to Mr. Cowper-Temple's Bill. On that occasion the question was referred to a small committee, which framed a report, and then the Council resolved itself into a committee "of the whole house" to consider the report.

Dr. Andrew Wood agreed with Professor Turner. He was sure that if they dealt with the Bill as a committee of the whole house, every member being at liberty to speak a dozen times or more, they would take an immense time to thresh out the question. A small committee would be able to bring before the Council an analysis of the Bill, and a recommendation as to what they should do. The Council could then resolve itself into a committee to consider the matter. It was desirable that there should be a good deal of discussion on the subject, for there was a vast deal of discussion out of doors, and only one side of the question was being heard. He thought that the plan which he recommended would enable them—if he might use a vulgar Scotch expression—to "take the guts out" of the Bill, and show exactly what it meant. They must give the public some idea that the medical profession was not a body devoted to the exercise of wanton cruelty to animals. They must take care, when the committee gave in its report, that the consideration of the question should be the first business of the day.

Dr. Rolleston supported the motion for a small committee put forward by Mr. Lister, and he proposed that Sir William Gull's name should be added to the committee.

Dr. Quain moved the addition of the name of Mr. Teale to the committee.

The amendment proposed by Sir William Gull was withdrawn by consent of the Council, and the original motion for the appointment of a committee was carried unanimously, the names of Sir W. Gull, Mr. Teale, and Dr. Thomson being added to those first named.

Mr. Macnamara suggested that the Council should devote a whole day to the work of the various committees.

Dr. Quain and Dr. Andrew Wood supported the suggestion.

On the motion of Dr. Andrew Wood, seconded by Mr. Turner, it was resolved—"That the observations on the recommendations and opinions of the Medical Council from the following licensing bodies:—The Royal College of Surgeons, England; the University of Oxford; the Univerity of Cambridge; the University of London; the Royal College of Physicians, Edinburgh; the Royal College of Surgeons, Edinburgh; the University of Edinburgh; the Faculty of Physicians and Surgeons, Glasgow; the University of Glasgow; the King and Queen's College of Physicians in Ireland; the Royal College of Surgeons, Ireland; the Apothecaries' Hall, Dublin; the University of Dublin—be received and entered on the Minutes."

Dr. Andrew Wood moved, and Mr. Turner seconded—"That the observations be referred to the Committee on the Recommendations of the Council appointed June 17, 1875, and that it be an instruction to the Committee to consider the whole question of the registration of medical students;"—also "Letter to the President from Professor Harvey, of Aberdeen, concerning Materia Medica."

Carried unanimously.

The following alterations were made in the list of the Committee:—Mr. Quain and Dr. Humphry withdrew; Dr. A. Smith was appointed in place of Dr. Humphry; Mr. Teale was appointed in place of Dr. Parkes, deceased; and Dr. Thomson and Mr. Bradford were added to the Committee.

Dr. Stokes moved—"That a committee be appointed to take into consideration the recent Warrant relating to the Army Medical Service." In supporting the motion, Dr. Stokes said: The army should be available as a means of promoting instruction to its medical officers, and the comparative rank and status of the medical officers should be as far as possible assimilated to those of the combative military surgeons being occasionally exposed to the effects of direct military action in the field, besides having to combat with disease—both local and epidemic—such as will arise in quarters. The surgeon's duty should have relation to every circumstance of the soldier connected with the whole of his moral and physical condition. The latter should not be regarded as a merely fighting man, but should be intimate with his surgeon in every one of his sanitary and his physical conditions, and the care of the medical officer should extend more or less to his domestic relations—his moral as well as his physical well-being. In the first

of these he should be associated with the regimental chaplain. It has been settled that retirement from active duty on the part of the medical officer shall take place after ten years' commissioned service, unless the surgeon be specially selected for further employment in the Medical Department of the Army. If not selected to serve therein, his services shall be dispensed with, and he shall be entitled, in lieu of all pension or retirement (the pension for wounds excepted), to the sum of £1000. In the event of disability from sickness or accident within five years the medical officer forfeits all pension, and after six months' half-pay his services are dispensed with, and he shall have no further claim on the Department. The evil consequences of this regulation upon the individual as well as upon the patients are very easily foreseen. It will as well unfit him for civil as for military occupation, and the pittance he has earned at the termination of his military career is more calculated to injure him than the contrary. He will have become a mere mercenary without that military spirit, failing in which the best professional man can never make a good soldier-surgeon. The real blots on this new Medical Warrant are these:—That it limits the number of selections for promotion to six annually out of all incoming candidates who may complete ten years' service, whereby five-sixths of those entering year by year are afterwards stranded with a wholly insufficient sum as recompense for the service of the ten best years of a young man's life. That an officer if under five years' service may be dismissed from the army unless able to resume his duties after six months upon half-pay. That officers of twenty years' service remain junior to the rank of lieutenant-colonel—a regulation which is not enforced in other departments. That the new scale of pay is not made applicable to present officers. That the maximum rate of daily pay obtainable after twenty-five years' service has been reduced from 27s. to 25s., by which means the present very insufficient rate of voluntary retirement is correspondingly decreased. That no statement has been made as to what rate of pay is to be given to candidates when serving in India. That the sum of £1000 does not represent the value of ten years' service to those who may not be selected for promotion at the present rate of voluntary retirement after twenty years' service, viz., 12s. 5d. per diem. If recompensed at the same rate the young officer should receive 6s. 5d. per diem, the capitalised value of which sum in an individual of thirty-one years of age would amount to four or five times the sum offered by Government. As a remedy for these defects I should suggest that the new rate of pay should apply to all officers, and that the maximum of 27s. 5d. daily pay be restored. That the clause limiting the number to be selected on to the permanent establishment to six each year be cancelled; only those who may wish to retire, or whom it may not be desirable to retain after ten years' service, be allowed to retire with a bonus calculated upon a daily rate of pension of 6s. 5d., half of the sum now obtainable after twenty years' service. That officers of twenty years' service be not junior of their relative rank, as is the case with chaplains and commissariat officers. That young officers incapacitated through ill-health under five years in the army be properly compensated, and that every medical officer who may have performed his duty satisfactorily and with an unblemished reputation may look forward to the administrative ranks of his profession as a reward for long and faithful services. Attention should also be called to the position of militia surgeons who have been deprived of a large proportion of their emoluments by the taking from them the examination of recruits without any compensation whatever, while the work is thrown upon army surgeons without any reward. It may be added that surgeons of militia regiments have also in many instances been deprived of their assistants and hospital sergeants. They have, in consequence, to perform the duties of these two officers in addition to their own.

The motion was seconded by Dr. Andrew Wood.

Dr. Aquilla Smith said that he had no knowledge whatever of the Army Warrant, except what he had been able to collect from the observations of Dr. Stokes; but, as far as he could see, it appeared to him that the matter was one with which the Council had really nothing to do. The matter was not one relating to the education of doctors for the army, but it related merely to the question of money to be paid for their services.

Sir William Gull said that he was sure they always listened with the greatest possible respect to whatever came from their venerated friend Dr. Stokes; but he was sorry to find himself unable to agree with Dr. Stokes as to the relevancy of this particular question. If the Council had been what might be called—to refer to one of Massinger's plays—"a parliament of love," he should go in for this question very strongly; but they were charged simply with matters which related to education and registration, and the subject of the Army Warrant was *ultra vires*.

Mr. Lister said that the motion seemed to open up a number of questions as to what the functions of the Medical Council were. The subject of the motion was one which was worthy of their attention, and it interested the medical profession, if it did not come strictly within the range of medical education. He thought, however, that it might be said to have a connexion even with education, as it opened up the question whether there was a sufficient inducement held out by the army authorities to induce young men to obtain the required qualifications for army service.

Dr. Andrew Wood said that he thought they were in some way entitled to consider the action of the Army Medical Board. For some years that Board had been saying that the men who went up for examination by them had failed to pass, although they held qualifications for general practice. The Council, however, had recently altered that condition of things, and he thought that they were entitled to say to the Army Board, "If we give you better men, why do you not give them a better status and better pay?" He considered that they were entitled to take the matter up and go into committee upon it. The other day an examination was held by the Medical Department of the Army, and there was only a sufficient number of applicants to fill the vacant posts, so that the competition, consequently, came to an end. He thought that it was a matter for inquiry why a department which ought to secure the services of really good men failed to get them. He believed that the reason was that the medical men in the army were not put into a proper status. He thought that, whatever decision the Council might ultimately come to on the subject, it would be discourteous to Dr. Stokes, and unjust to themselves, to refuse a committee.

Mr. Macnamara supported the motion. He believed that if they appointed a committee they might probably find out some way in which they could serve the Government, the country, and the profession.

Mr. Bradford said that he had passed the greater part of his life in the army, and he had no hesitation in saying that the recent Warrant had very much injured the position of army doctors. He should not hesitate to support Dr. Stokes' proposition. It was important that they should consider whether they had any power to exert an influence on the Government of the country in reference to this subject. The change which had taken place was calculated to deter medical men from entering military service.

Dr. Thomson was most unwilling to dissent from any proposition which was brought forward by Dr. Stokes; but he regarded the present question as one entirely outside the functions of the Council. He then moved as an amendment—"That it does not come within the province of the Council to take into consideration the terms of the Army Medical Service."

The amendment was seconded by Dr. Aquilla Smith.

Dr. Rolleston agreed with what had been said as to the bad way in which army medical officers had been treated; but he doubted whether the question of pecuniary transactions between medical men and a Government department touched the question of education and registration.

Sir Dominic Corrigan asked whether there had been any applications from the surgeons of the army that the Council should take up their cause. That was a very important point. It might happen that the Council were dealing with a matter which they had not been asked to touch. He felt a difficulty in entering into a quarrel into which they had not been invited.

Mr. Turner said that the discussion which had taken place would show army medical officers that this Council had the desire to help them, but they had not the power, as the matter did not fall within their province.

Dr. Stokes, in reply to the discussion, remarked upon the importance of the subject, and asked whether the Council were not entitled to look after the physical as well as the moral condition of military surgeons. It was quite plain that the number of surgeons in the army was being decreased. The Medical Council ought to be the helper of all the members of the profession who sought to raise themselves in the social and scientific scale.

The amendment was then carried.

It was resolved that the returns from the Army Medical Department to the Council should be put on the programme for the following day.

The next business in the *agenda* was the reception of the communication from the President with regard to the Conjoint Scheme in England.

The PRESIDENT said that he had no further information than he had already given in his address.

Dr. ANDREW WOOD gave notice that before the conclusion of the present session he should put a question as to what was the state of the Conjoint Scheme for England. (Hear, hear.)

The PRESIDENT said that he would undertake to give the best answer in his power to Dr. Andrew Wood when he put the question.

Mr. TURNER said that it would clear the way for the discussion of the subject if the Council had before them the opinions of the individual bodies which were to become members of the Conjoint Board.

It was resolved that the table of results of examinations be entered on the programme for the following day.

Mr. MACNAMARA said that he observed that there was a reference on the programme to a list of the bodies which were recognised as conducting the preliminary examination of medical students. He wished to know how the Executive Committee had arrived at the knowledge that the bodies mentioned in the list were qualified to conduct the preliminary examination. He felt strongly on the subject of that examination, and he was anxious that they should be thoroughly satisfied that the bodies enumerated conducted the examination efficiently. It was an undoubted fact that some of the students who had passed the preliminary examinations of certain bodies were sadly wanting.

Dr. ANDREW WOOD said that it was the duty of the Executive Committee to prepare the list annually. All the bodies which applied for admission on the list had to give satisfactory answers to certain questions before their names were inserted.

Mr. MACNAMARA said that a visitation of the examinations would be better than inquiry of the bodies themselves.

The PRESIDENT said that in the early days of the Council this subject was entered into at very great length, and some of the most difficult discussions which had taken place had reference to it. A list was made of the examining bodies whose examinations fulfilled the requirements of the Medical Council, and gradually the list had been extended, applications having come, from time to time, from bodies which were desirous to have their examinations recognised by the Council. When the list appeared on the programme a question could be raised as to any examining body which was included in the list.

Dr. AQUILLA SMITH said that he was glad that the subject was likely to come under the serious consideration of the Council. He was more and more convinced that many of the preliminary examinations were a sham. It was of the deepest importance to the future of the profession to have a *bonâ fide* test of preliminary education.

The further consideration of the subject was deferred until the Business Committee should have framed a resolution upon it.

The meeting was then adjourned until two o'clock to-morrow.

DEATH OF PROF. HIRSCHFELD.—Dr. Ludovic Hirschfeld Professor of Anatomy in the University of Warsaw, and the author of the well-known Atlas of Plates of the Nervous System, died from dropsy on May 10.

THE CREATION OF SCIENTIFIC CAREERS.—The veteran chemist, Prof. Frémy, undeterred by former acknowledged failures in endeavours to stimulate scientific progress, has just come forward (*Gaz. Hebdom.*, May 19) with a new and somewhat startling project, by which he proposes "to create for young *savants* a modest and progressive career comparable to that offered by the State to the soldier and engineer." The "scientific career" is to consist of five grades or ranks. The *savant* of the fifth grade will receive 3000 fr. per annum, and 5000 fr. will be accorded to the fourth grade, 8000 fr. to the third grade, 15,000 fr. to the second grade, and 20,000 fr. to the first grade. A special jury will be appointed for the determination of the aptitude of the young aspirants and for the recommendation for promotion of the chosen *savants*, after duly estimating the real services which they have rendered to science.

FROM ABROAD.

THE TREATMENT OF DIPHTHERIA.

AT a meeting of the New York Academy of Medicine (reported in the *New York Medical Record*, March 25), Dr. Billington read a paper with the object of showing that in diphtheria it is the local affection which is the primary disease and the source of constitutional manifestations. He based this view upon observations made on 300 cases, of which 130 were under his own care, the great majority being patients under twelve years of age; and the results of the treatment of these cases on the principle of local disinfection strongly confirmed its accuracy. The great object should be, in fact, to destroy the poisonous local exudations by local disinfection, taking great care at the same time not to irritate the part affected. At the head of the remedies suited to this purpose Dr. Billington places the tincture of the perchloride of iron; while lime-water, glycerine, chlorate of potash, carbolic acid, salicylic acid, and sulphite of soda are all of utility. But he believes that their disinfecting influence is better obtained by their internal use than by their topical application. Still, in some cases, such topical application by means of a soft brush or by spray is also very beneficial, but requires to be conducted with great care, lest mechanical irritation be produced. The following formulæ are those that have been found useful, frequency of dose being much insisted on:—1. Tinct. ferri perchlor. ℥jss. (℥ss. ?), glycerin., aquæ, āā ℥j.; a teaspoonful every two hours. In children under two years of age one drachm of the perchloride is sufficient in the mixture, and if there is troublesome vomiting it is sometimes necessary to leave it off. 2. Potass. chlor. ʒ ss., glycerin. ʒ iij., liquor calcis ad ℥iij.; a teaspoonful of this is also given every two hours alternately with the former mixture, an interval of thirty minutes being left. 3. Acid. salicyl. gr. x. ad xv., sodæ sulphit. gr. xxx. ad xlv., glycerin. gr. xxx., aquæ ad ℥iij.; a teaspoonful of this is also ordered in addition to the above, but at what exact time is not stated. 4. Acid. carbol. ℥lx., liquor calcis ℥iv.; this is to be used in the form of spray (by means of a perfuming atomiser) for several minutes just before the administration of each dose of medicine. Children under two years of age so resist the use of this spray that it is not available for them. The nasal douche should be used early; and if there is persistent offensiveness of breath, the nasal syringe and the salicylic mixture must be resorted to. 5. Tinct. ferri perchlor. ʒ ij., glycerin. ʒ j.; this should be applied, with great gentleness, when there are rough, unyielding membranes. Except as an agent for reducing temperature when this remains high after the initial stage, quinine is worse than useless, especially in young children. Stimulants should not be used indiscriminately. Ice may be given freely; and the strength may be sustained by cold milk, perhaps eggs, and the juice of fruits.

By following out this plan Dr. Billington states that in 124 dispensary patients, in all of whom there was membranous exudation, he obtained ninety recoveries. He also had seventeen cases in private practice, all of which recovered except one, seven of them being severe and the others mild.

Dr. Barry observed that he had never been able to obtain a success like this; and, viewing the disease as a constitutional affection, he treated it by general as well as by local measures. When the amount of exudation was small, he used tincture of iron, or muriatic acid with glycerine; or, if the patient was old enough, astringent gargles. When the patient is young, vapour of hot water, or of iodine, may be recommended; and when the tonsils are pretty well covered, a powder, composed of sulphate of iron, chlorate of potash, and muriate of ammonia, may be blown into the throat through a quill every two hours. The general treatment should be supporting in the fullest sense of the word, for the tendency to death is by asthenia.

Dr. Hanks observed that the success of Dr. Billington had been remarkable, for he knew that many of his cases had been severe, and not a few malignant. He believed that this success arose not only from the nature of the remedies employed, but also from the great care taken in teaching parents

and nurses the *proper manner* of administering these medicinal substances. He wished he could emphasise the vast importance in treating diphtheria of careful attention to the *minutiæ*. Merely giving directions does not suffice, and more than one-half of the best class of patients do not receive the full benefits of the medicaments through lack of proper and intelligent nursing. Dr. Hanks recalled his experience of fourteen years since, when it was the practice to apply strong caustics and give large doses of tonics and stimuli internally, and when about one-half of the patients, old and young, died. Of later years he had used a combination of tannin and glycerine with greater success; and later still this had been exchanged for a carbolic acid gargle, or for a powder of equal parts of chlorate of potash and sugar, blown through a glass tube. He now, however, prefers Dr. Billington's formulæ, and especially the combination of carbolic acid and lime-water used with the atomiser. Although his success is far greater than it was when employing caustics, it did not come up to that of Dr. Billington. During 1875 he had twenty-seven cases with twenty-one recoveries and six deaths. Upon one point he laid great stress—viz., the enforcing a sort of quarantine regulation when the disease had appeared. A careful and thorough disinfection of the room and apartments of the patient and family could not be too strenuously insisted upon. For this purpose he used sulpho-carbolate of lime. He also compelled a persistent administration of the antiseptic remedies —carbolic acid in solution, or pulverised chlorate of potash—to all the unaffected members of the family. In carrying out this *régime* during the past year he had had the satisfactory result of preventing the spread of the disease to other members of the family. In several instances where there were four or five small children that result had been obtained.

At another meeting of the Academy (*New York Medical Record*, April 8), Dr. Post related some cases of diphtheria which he had treated successfully by means of bromide of potassium administered according to the following formula:— Pot. brom. ʒj., aquæ ℥j. In this solution twenty minims of bromine were dissolved, and of the mixture ten drops were administered every hour to a child three years of age. Dr. Caro observed that the bromide had been his main reliance during the last fifteen years, nothing dissolving the membrane with greater certainty. He used a solution of one drachm to the ounce of water, applying it usually in the way of spray. Whenever the breathing became dry he at once resorted to the spray for a few minutes, when the child usually commenced breathing more easily, and in many cases coughed and threw out patches of membrane. He recommended its early use, as there was no more efficient method of relieving capillary congestion. Asked what he meant by "early," Dr. Caro replied that when he noticed an increased redness in the throat of a patient who complained of the chilliness, general malaise, aching limbs, headache, etc.—symptoms commonly attendant upon diphtheria—and the patient had been within the influence of the disease, he did not wait for the formation of membrane, but at once resorted to the bromide as the best means of reducing capillary congestion.

Professor Parrot on Athrepsia.

The number of the *Gazette Hebdomadaire* for April 7 contains a *résumé* of a course of lectures which Dr. Parrot has been delivering during the last two or three years, and which were reported in detail in the *Progrès Médical*.

By this term (*a*, and *θρέψις* nourishment, from *τρέφω*) Prof. Parrot wishes to indicate the affection of the digestive canal in young infants characterised by an excessive disturbance or destruction of the process of nutrition. The symptoms have been long known and often well described, but have not been hitherto regarded as constituting an affection having its own causes and special morbid process. It is to it that is due the fruitful mortality of nurse-children, and upon it that hygiene exerts so much influence. On the infant passing from the fœtal state, although disturbances of nutrition are the principal cause of disease affecting it, this is not the only cause, for besides the infants that are born viable and under good conditions, and who may become the subjects of consecutive digestive disturbances from anti-hygienic and other causes, athrepsia will especially affect those who are born in a debilitated state, whether from being before their time or from imperfect formation. In such the respiration is found difficult, rare, or superficial, the pulse can be scarcely felt, and the sounds of the heart are only heard with difficulty. Everything which impedes nutrition is a predisposing cause of athrepsia. Thus, harelip or perforation of the palate impedes sucking, and coryza (an affection thought little of by the friends) may in this way prove fatal.

There are three stages to be observed in the disease. In the first the stools are observed to be frequent, liquid, yellow or green; and these are followed by diminution of urine, thirst, restlessness, and loss of sleep. In the second period the stools acquire a repulsive smell, and there are first regurgitations and then vomiting, the appetite also diminishing. The child utters peculiar cries, and is emaciated, its facies being dejected, and its bodily heat sensibly diminished. Aphthæ accumulate in broad and thick plates on its tongue and fauces, adding another obstacle to digestion. In the third period the child passes into a hopeless state, the emaciation becoming excessive, and the stools more and more frequent and fetid. Although tormented by thirst, it is unable to suck or to swallow. The temperature continues to descend, the body remains immovable and the limbs rigid; the abdomen in most cases is flattened, and the respiration gets slower and slower. The vomiting, which has been increasing in frequency, at this stage immediately follows ingestion.

With respect to the lesions produced, Prof. Parrot observes, first speaking of aphtha or *muguet*, which here plays so important a part, that it is the athrepsia which gives rise to the appearance of the parasite in the economy, the *muguet* being a mere incident and never constituting the disease. But while we should not attribute to it the results due to the athrepsia itself, it is a painful complication, which by impeding sucking renders nutrition yet more difficult. While admitting that the presence of the germs of the parasite is indispensable, Prof. Parrot insists that these can never become developed unless the digestive canal and the buccal mucous membrane are in an altered condition—thus making this dependent on athrepsia, instead of regarding, with Valleix, the *muguet* as the initial cause. Besides this there may be present ulcerations with loss of substance of the velum, and deposits which from their seat Prof. Parrot terms *plaques pterygoidiennes*, and which are almost as common as the *muguet* itself. The lesions of the skin that are observed are erythema, ulcerations, and pemphigus. The erythema, which is especially found about the buttocks and external genitals, Prof. Parrot believes is caused by the diarrhœa, and disappears with it. The ulcerations are found generally in the heels and the internal malleoli, and sometimes along the edges of the feet. They occur only at the advanced period, and are of bad augury. The pemphigus is more rare than these two lesions, the athrepsia conferring upon it a cachectic appearance. The skin, too, in place of the normal red of the new-born infant, is of a livid yellow, and in some parts bluish, as around the mouth, the hands, etc. Induration also is a constant sign, the skin seeming uniform without any folds, and unable to be separated from subjacent parts. When this induration affects the face, the rigidity of the lips and of the buccal parietes renders suction and deglutition impossible—giving the child an appearance which has been mistaken by many observers for tetanus, and has been called erroneously trismus of new-born infants. The occurrence of coma and convulsions, sometimes of a complex epileptiform character, indicates the approach of death.

In speaking of the treatment, Dr. Parrot observes that athrepsia is a disease which may be induced in any child exposed to nosocomial influences and a deleterious diet, and our first care must be its nutrition and the choice of a nurse. Before allowing the child to suckle, we must give it six or eight times in the twenty-four hours a tablespoonful of a mixture consisting of three grammes (forty-five grains) of subnitrate of bismuth and 300 grammes of syrup of comfrey or syrup of quince. When the diarrhœa persists, a mixture of three grammes of bismuth, fifty of lime-water, and fifty of syrup of comfrey should be given; and if there is agitation, slight fever, and a foul tongue, from five to ten grammes of syrup of ipecacuanha may be administered. In the acute form of athrepsia, we must proceed with great energy, giving every ten minutes a teaspoonful alternately of two iced drinks —the one being prepared with 200 parts of sugared water and ten of old Cognac, and the other consisting of beef-tea quite devoid of fat, slightly salted and diluted with equal parts of water. Three or four times a day the child should be placed for five minutes in a bath at 35° C. (95° Fahr.), to which has been added for every twenty-five litres of water forty or fifty grammes of flour of mustard. Nutritive enemata are of no use whatever.

REVIEWS.

A Manual of Midwifery. By Alfred Meadows, M.D. Lond., F.R.C.P., etc. The third edition, revised and enlarged. London: Henry Renshaw, 356, Strand. 1876. Pp. 496.

We are glad to be able to notice the third edition of Dr. Meadows' "Manual of Midwifery." The author describes it, in his preface, as essentially a "student's manual, and a handy book for the busy practitioner," and among these classes we believe it has been, and will be, widely popular. It contains a great deal of information in a small compass; the style is easy, clear, and interesting; the learner's confidence is not shaken by hesitating utterances, and he is seldom bewildered by being shown, and left to take his choice among, a number of courses, each of them with something for it and something against it. Nevertheless, there are a few subjects on which we think Dr. Meadows might with advantage be more definite; for instance, on extra-uterine fœtation—a condition in which the author seems to have made up his own mind as to what he would do, but hesitates to recommend it for general adoption. Some rules for selection among the less heroic plans would, we think, be of service. The chapter on puerperal convulsions would, we think, be improved by a clearer summary of what is known respecting the pathology of this condition.

The present edition differs from the preceding one only in amplifications and additions here and there—*e.g.*, we find appreciative mention of the contractions of the uterus described as a sign of pregnancy by Dr. Braxton Hicks. The distinctive features of Dr. Meadows' teaching remain as they were. He continues to prefer the Cæsarian section to measures involving the destruction of the child in cases of pelvic deformity where the conjugate diameter does not exceed two inches, and in cases of cancer of the cervix so advanced as to prevent the birth of an unmutilated child. He still directs that the short forceps should be applied over the sides of the child's head rather than in relation to the sides of the pelvis. On these points, and on some others, we think the author's teaching is open to objection, but this is not the place to discuss them. We notice that he is yet reluctant to use perchlorido of iron in cases of post-partum hæmorrhage.

We must not forget to remark that this edition is enriched with many additional illustrations. We cannot say they are the best extant, but they are good.

Although on some points we cannot agree with his practice, yet we congratulate Dr. Meadows and the profession on the appearance of a new edition of so excellent a manual.

The Diseases of Infancy and Childhood. By J. Lewis Smith, M.D. London: Lewis. Third edition. Pp. 724.

The fact that two editions of this book have been so quickly sold out, and that a third one has been published, sufficiently testifies to the reception which it has met with; and no doubt this is a measure of its usefulness and of the favour in which it is held by the author's pupils and friends in America. The book is exceedingly well got up; it is enriched with engravings, which add much to its usefulness; and fairly represents, both from a clinical and a pathological standpoint, the present status of our knowledge of children's diseases. Of course it is not likely to take the place of West's classical Lectures on Children's Diseases, nor is it probable that it will ever acquire such a reputation in this country as in America; still, it will be found an exceedingly good book both for study and reference.

The present edition contains a good description of German measles (*Röthlen*), founded on the author's own observations during an epidemic which recently occurred in the neighbourhood of New York. This chapter is well worthy of perusal. Also the chapter on epidemic cerebro-spinal meningitis is particularly good; it is, in fact, the best description of this disease, in English, with which we are acquainted. The author closely studied this disease during the New York epidemic of 1872; its etiology and its supposed relations with typhus fever are carefully gone into. We notice that the author wisely abstains from discussing the much-vexed question of croup and diphtheria; while he nevertheless sufficiently indicates, both in words and by the arrangement of his subject-matter, his own belief in their separate individuality. The author has evidently well informed himself on the latest novelties, both as regards diagnosis and treatment, for we observe, in speaking of intussusception, that he refers to Mr. Hutchinson's well-known case of successful abdominal section as a final effort, when other means have failed to bring relief. We need scarcely say more. Beyond a few peculiarities of diction there is nothing whatever to find fault with, and we are pleased to be able to recommend the book as the work of a painstaking and thoughtful physician.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

(*From an Occasional Correspondent.*)

Paris, May 22.

The Weather — Hôpital Beaujon — Salpétrière — The French Learned Societies—The Students and the Funeral of Michelet.

When I tell you that I saw *tentes*, or beds, under an awning in the garden of the Hôpital Beaujon the other day, you will understand how warm and bright the weather is with us. Truly a pleasant change this must be to the poor surgical patients with chronic ailments, to be brought out into the open air and have the fresh breeze and the sweet scent of the flowers about them.

Not that they have been badly off inside the Beaujon. This is one of the most pleasant hospitals in Paris, and should be seen, if possible, by all professional visitors. It is situated in the most beautiful part of the city—near the Champs Elysées—and has an air of freshness, neatness, and comfort about it which some of the older institutions, of course, cannot possess.

At the extreme other end of Paris, and as different from the Beaujon as it well could be, stands one of the most venerable and, I think, the largest of the hospitals—the Salpétrière. A hospital it can hardly be called, however, in the strict sense of the word; it is rather a sick asylum for the poor, such as you have in London. At present I am told it contains the almost incredible number of 6000 inmates, all women. Most of them are old and infirm, decayed and aged like the Salpétrière itself; but besides these there are many younger residents, afflicted, almost without exception, with chronic nervous disease; and there are even a few idiot children. In this huge establishment, which may be described as a village rather than a building—not unlike the Allgemeine Krankenhaus at Vienna, only much larger—there is, as you know, an amount of *matériel* such as is, perhaps, nowhere else to be found in Europe; and I need not remind the readers of the *Medical Times and Gazette* how well this has been utilised. The name of Professor Charcot is now prominently before the profession in all parts of the world, including England, as that of the man who has advanced in such a remarkable manner our knowledge of the physiology and pathology of the central nervous system. Everything at the Salpétrière is in order, and in complete working order. The ambulant patients are carefully watched; the sick are isolated and nursed in the infirmary; and I can testify to the amount of attention that is paid to all the cases in their scientific aspect, to the effects of remedies on their symptoms, and to the post-mortem results. With so many cases continually under careful observation, the physicians of the Salpétrière will soon be able to give no uncertain sound on the great question of the localisation of the cerebral functions.

You must not be surprised if I mention the learned societies to you, and try to describe a *séance* of some of them, for here in Paris they do not, like yours, give up their meetings in summer. They go on all the year round, except for a short holiday in September—and that not twice a month like you, but once a week. If I were to mention the most striking difference first between the societies in the sister countries, perhaps I should say that in France the sittings are held in the afternoon instead of in the evening. But I ought to have reminded you by this time that the societies chiefly interesting to us, and of which one most frequently sees reports in the English journals, are the Académie de Médecine, the Académie des Sciences, the Société de Chirurgie, the Société Anatomique, and the Société de Biologie. There are others, of course, but more special and less important to us. Very much as in London, the members differ considerably in the different

societies; thus the Academy of Medicine and the Surgical Society appear to be frequented chiefly by the more reverend members of the profession; while the younger men, and especially the *internes* and the aspirants to professorships, are to be found at the Biological and Anatomical. As for the *séances* themselves, they are as unlike the meetings in Berners-street as they could well be, and if I were to attempt to describe them I should have to resort elsewhere to draw a comparison. First, and chiefly, there is about these French gatherings an almost total absence of that severe and dull formality which reigns supreme in the English. I suppose the *séance* begins at some fixed hour, but, if so, I have not yet met with anyone that could say when: it certainly is of quite indefinite length, coming to an end when the business is finished; and during the whole of its course members come and go, and move about much as they please. Like every other meeting here, as far as I have seen, such a *séance* is perfectly free to the public, and men sit or stand together in groups—perhaps with their hats on,—and the hum of conversation frequently drowns the voice of an uninteresting speaker. Compare or contrast this picture with that of a meeting of your Medical and Chirurgical Society in its evening dress. At the Académie de Médecine there is perhaps less of the free and easy style than elsewhere: the scene reminds one more of the House of Commons than of anything else; and there is especially a striking resemblance between the busy lobbies in the two places. But at the Société d'Anatomie freedom is the order of the day; and on entering the room the stranger may at first have some difficulty in discovering, among the several noisy knots gathered around the various specimens, which of the members is formally in possession of the house. But his eye speedily catches a more formal row of seniors, who sit, board-like, at one side of a table, while at the other, opposite the president, in the horseshoe-recess familiar to French students, the exhibitor is busily demonstrating his specimen. You must remember that this Anatomical Society is chiefly *pathologico*-anatomical; in fact, the specimens are as nearly as possible the same as those presented at your "Pathological." The exhibitor having finished his description, one of the members near him probably asks a question, a second does the same, and by-and-by an animated conversation is being carried on. No formal rising, or speaking but once, or elaboration of delivery, but a brisk and brief discussion, and done with it. Then the next exhibitor is summoned to the President's table from the corner where he may have meanwhile been showing his all-important specimen to his personal friends. The French call this a meeting *en famille*, and I cannot say it is a misnomer. The Société de Biologie puts one more in mind, in its *séances*, of a meeting of section of the British Medical Association; and having said this much, I need not attempt more particularly to describe it. The venerable Claude Bernard presides over its proceedings. You may have gathered from this rapid sketch of the French medical societies how very differently they are conducted from the English. The early-morning visit at the hospital leaves the greater part of the day to the physicians and surgeons, and to the resident staff, who, as I have said, support in a great measure the younger societies. The French physician prefers to spend his evening at home or at the theatre; and thus the afternoon is the time when the meetings of the societies can best be held.

The funeral of Michelet was the prevailing subject of conversation at the clinics and Ecole de Médecine a few days ago, but it passed off quite quietly, and already the event seems almost to be forgotten. The remains of the illustrious historian and thinker, who died more than two years ago, were brought to Paris last Wednesday, and carried to the grave on the following day amidst a large concourse of students, who were anxious to honour the memory of a late professor. As I have hinted, some disturbance was feared by the authorities—or, rather, a demonstration on the part of the *libres penseurs*, who were expected to improve the occasion. Deputations were present at the ceremony, which was a civil one, from provincial and foreign faculties; but I have not heard that England was represented. However, even the turbulent St. Antoine, through which the *cortége* passed, preserved a silent and respectful demeanour; and after the customary orations the great gathering separated in peace. Advantage was taken of the presence in Paris for the occasion of the foreign and provincial deputies to make some preliminary arrangements towards the institution of an international students' society—I fear, however, without much success. One of the leading promoters of the movement is reported to have moved that German students—as the enemies of France—should not be eligible for election! You will probably never hear of the project again.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, May 3.

W. O. Priestley, M.D., F.R.C.P., President, in the Chair.

Flexible Uterine Sound.

Dr. Murray exhibited a flexible vertebrated sound, which could be introduced limp, and when inserted, by twisting a screw at the end the sound became firm and straightened. Adhesions could thus be detected. There was danger from the ordinary uterine sound passing through the fundus uteri. He only employed it in extreme cases of flexion, and not with a view to raising an adherent fundus.

Dr. Hayes inquired if the uterine sound would pass through a healthy uterus.

Dr. Routh stated that we could not tell what was a healthy uterus until we had passed the sound. He had seen the uterus perforated on three occasions by the sound—passing right through the fundus.

The President mentioned that Sir James Simpson had asserted that the sound often perforated the uterine walls; but it was a question whether in these cases it had not found its way into the Fallopian tubes. If the sound traversed the peritoneum, there would probably have been some peritonitis set up. In cases of sub-involution the walls were soft and fatty.

Dr. Grigg mentioned having seen a case where the sound perforated the fundus, the uterus being infiltrated with cancer. No evidence of the perforation existed post-mortem.

Dr. Potter, on one occasion, when endeavouring to redress a retroflexed uterus bound down by adhesions, perforated the uterine wall with the sound, and felt the point clearly through the abdominal wall, and yet no harm resulted.

Caries of the Pelvic Bones following Delivery.

Dr. Playfair exhibited a specimen removed post-mortem from a patient who had had craniotomy performed in two previous confinements. In the last one she had been attended by a practitioner, who had applied forceps at the brim. On admission to King's College Hospital, large portions of sloughy tissue were discharged from the vagina, and the urine escaped freely. Intense pneumonia of both lungs, probably of septicæmic origin, accompanied by much typhoid prostration, preceded the fatal issue. Post-mortem the left sacro-iliac synchondrosis was found to be in a carious condition, the cartilage being entirely diseased, and the bones themselves extensively necrosed. The caries was probably the result of the septicæmia.

Dr. Hayes mentioned having seen the case, and stated that there had been a cough previous to labour, and it was therefore uncertain whether the pneumonia was antecedent to delivery.

Dr. Snow Beck inquired as to the seat of the pneumonia, what were the stethoscopic signs, and what was the character of the sputa.

Dr. Playfair explained that there was consolidation, crepitation, bronchial breathing, and the usual post-mortem physical signs. He regarded the pneumonia as of secondary pyæmic origin.

Dr. Wiltshire thought it would be interesting to know the character of the locomotion, as there was separation of the sacro-iliac synchondrosis. He would like to know if there were any abscesses of the liver or other organs.

Dr. Playfair, in reply, stated that there were no abscesses of the liver.

Dr. Snow Beck stated that in septicæmic pneumonia there was a watery expectoration, showing that there was congestion, but there were none of the ordinary rusty sputa characteristic of ordinary pneumonia.

Dr. Cleveland thought the question of injury from forceps a very important one. There was less likely to be any if chloroform were not given.

Case of Excessive Prolongation of the Anterior Lip of the Cervix.

Dr. Routh related the particulars of a case which simulated polypus uteri. The projecting body appeared to be from six to seven inches long, and sometimes projected three inches beyond the vulva. It was removed by the écraseur, the actual cautery being then applied to restrain hæmorrhage. There was no history of syphilis to account for the growth.

Further Report on the Case of Fibroid removed by Gastrotomy.

Dr. Routh stated that on section the tumour was solid throughout, extremely dense and hard—a purely fibrous growth,—surrounded by a layer of black pigment.

A Contribution to the Statistics of Midwifery in General Practice.

Dr. Henry Cooper Rose gave the result of 1250 consecutive cases of labour amongst well-to-do people, well nourished and carefully nursed. There were 199 primiparæ and 17 cases of twins; 1209 were vertex and 19 breech presentations; only 2 mothers died and 41 children. Forceps were employed in only 9 instances, turning in 6, and craniotomy in 4 cases. Details of the individual complicated cases were given.

Dr. Edis thought the paper one of great interest. The Society were much indebted to Dr. Rose for relating his experience, and others would do well to follow his example, for we were much in need of such experience to guide us as to when operative interference should be resorted to. With many practitioners the employment of forceps was looked upon as a *dernier ressort*. Dr. Edis had been called to cases where labour had continued for many days, where the application of forceps succeeded in terminating delivery in less than a quarter of an hour. It would be well if it were more generally known that in tedious and difficult cases of labour the danger was not in applying but in *not* applying forceps. Numberless children's lives were sacrificed and the maternal risks greatly increased for want of timely assistance.

Dr. Cleveland could not but think there was an important connexion between the few forceps-cases and the fifteen stillbirths that were not accounted for. He believed there would have been fewer dead children if instrumental aid had been more frequently resorted to. He agreed with Dr. Edis that it was most desirable there should be some general rule when forceps should be employed. As regards rupture of the perineum, he considered this accident might frequently be prevented by retarding the too rapid advance of the head, though the dilatability of the perineum varied considerably. He agreed with Dr. Rose in the desirability of always maintaining careful guard and pressure over the uterus after delivery.

Dr. Playfair thought the communication one of great value. He felt diffidence in making any comments upon it, but thought the proportion of stillbirths—one in thirty—rather large. It was a matter of urgent necessity to diminish the excessive infant mortality. Dr. Hamilton, of Falkirk, had had 600 consecutive cases without one stillbirth, and other 750 cases, and still none, owing to the timely application of forceps. At the Rotunda Hospital in Dublin, forceps were employed once in every five or six cases, and no children were lost. It was a fault of modern midwifery that sufficient attention was not paid to the life of the child. Forceps were not applied nearly as often as they should be.

The President also remarked upon the very small number of instrumental labours, and the good results to the mothers. He thought the os as well as the soft parts should be dilated before attempting to apply the forceps, and then they might be used with safety to both mother and child.

Dr. B. Robertson inquired if there was any reason for not stitching up the perineum.

Dr. Westmacott though the whalebone loop would often prove of service.

Dr. Snow Beck said if anyone could draw up a code of rules which would serve as a guide for the application of the forceps, he would be conferring a great benefit on all practitioners in midwifery; but he believed this to be impossible. Each case presented a combination of symptoms and facts peculiar to itself; and upon these symptoms the judgment and experience of the practitioner would have to decide. As to sutures in cases of ruptured perineum, he regarded them as unnecessary. If the knees were tied together, the parts came into apposition, and healing ensued.

Dr. Cooper Rose, in reply, stated that the death of the patient after convulsions and chloroform seemed due to collapse, as sometimes happened after severe operations, and not to the effect of the chloroform. With respect to sutures in rupture of the perineum, keeping the knees together with a bandage he found was all that was necessary to secure good results. He never liked to interfere where Nature appeared to be sufficient of herself to effect a cure. In regard to the high rate of stillbirths, no less than six were the syphilitic offspring of one mother, and others were unpreventable. As to forceps, believing as he did that meddlesome midwifery was bad, he generally preferred patience to instruments, but acknowledged that extended experience might induce him to apply forceps more frequently.

Case of Puerperal Septicæmia.

Dr. Henry Gervis narrated the particulars of a case which he had watched from the commencement to its termination in St. Thomas's Hospital. The temperature observations from day to day were given, and the result of the post-mortem examination. The case presented nearly every feature of septic infection—vaginitis, metritis, peritonitis, parametritis, phlebitis—to a remarkable extent; embolic mischief in both lungs, with concomitant bronchitis, œdema, and pleurisy; congestion of brain, and sero-purulent effusion into some of the larger articulations.

The discussion was adjourned until the next meeting of the Society, when Dr. Wiltshire proposed bringing forward a similar case.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 9.

Sir James Paget, Bart., D.C.L., LL.D., F.R.S., President, in the Chair.

Congenital Hydronephrosis.

Mr. Henry Morris read notes of a case of congenital hydronephrosis associated with imperforate rectum in a child of five days old, with remarks on the secretion and excretion of urine in the fœtus, and on the facts which tend to prove that during the latter months of intra-uterine life the urine of the fœtus is passed into the cavity of the amnion. The infant's abdomen was considerably distended at the time of birth, and continued to increase in size up to the day when surgical aid was sought. After the passage of a catheter along the urethra a large quantity of urine escaped, and after an operation had been performed for the purpose of establishing a communication between the rectum and anus a free discharge of meconium followed. The abdomen subsequently became quite flaccid, but the child died of exhaustion on the seventh day after birth, and on the second day after the operation. No post-mortem examination was allowed by the parents. From the symptoms of the case, as well as from the records of other analogous cases, it is to be inferred that a slight membranous obstruction in the urethra, sufficient to frustrate the slender efforts of the child to expel the contents of the distended bladder, was broken down by the catheter. Other possible explanations are considered, but rejected as being less probable than that above stated. Congenital hydronephrosis, like each of many other congenital deformities, frequently co-exists with one or more malformations in the same subject—for instance, clubbed foot, harelip, imperforate anus or rectum, and the absence of a prostate gland, have each been associated with congenital hydronephrosis. It is more frequent to find both kidneys affected than only one, and the most common cause of the condition is imperforate urethra or impervious ureters. The question is considered whether in these cases the enormous distension of the urinary organs arises from over-excretion on the part of the fœtal kidneys, or from retention of urine through some mechanical obstruction in the passages. It is concluded that the number of cases in which the obstruction and the distension have occurred together is too great to allow of their co-existence being considered accidental, yet the only relation which can possibly be conceived between the two conditions is that of cause and effect. The question which next arises is, "Does not the urine, during the later period, at least, of gestation, ordinarily flow into the liquor amnii, so as to avoid causing congenital hydronephrosis?" Upon this subject,

although physiologists are silent, there have been many opinions expressed in favour of an affirmative reply. In illustration of this, excerpts are contained in the paper from the writings of Lee, Prout, Kennedy, Billard, and Howship, and from the *Obstetrical Transactions*. Before accepting this view as to the excretion of urine, further proof is sought for in the analysis of the liquor amnii, since there ought to be evidence of some of the constituents of urine in that fluid if the view be correct. From analyses made by Rees, Frommocrz and Gugest, Wöhler, Gusserow, and others, the presence of urea and many of the salts of urine in the fluid of the amnion has been proved beyond question. On the other hand, the urine of the fœtus in some cases of congenital hydronephrosis has been found to be devoid of urea by Kennedy and Madge. It ought not, however, to be inferred from this that urea had never been formed in these fœtuses, but rather, that owing to the crystalloid character of urea this substance has escaped from the blood and from the retained urine of the fœtus into the blood of the mother, and it is further suggested that urea may in this same way even disappear altogether from the liquor amnii when fresh quantities cease to be excreted from the fœtal organs. But, dismissing all speculative reasonings, it may be stated that the following are well-ascertained facts:—1. That when an obstruction has existed in the urinary organs of the fœtus, the secretion of urine has gone on to a sufficient extent to cause changes similar to those which are seen in the urinary organs of adults after retention. 2. That the liquor amnii has been proved to contain urea, besides many salts such as those which are formed in normal urine. 3. That fœtal urine in some cases of hydronephrosis has been found not to contain either urea or uric acid; or to contain urea only in very small quantity. The conclusions which appear to be warranted by these facts are:—1. That urine is secreted in considerable quantity during intra-uterine life. 2. That this quantity is far too great to be stored up in a normal bladder and normal ureters. 3. That during the latter part of gestation, at least, urine is passed off through the urethra of the fœtus into the sac of the amnion. 4. That the proportion of urea in fœtal urine is, in all probability, smaller than it is in the urine secreted after birth; and that as in cases of congenital hydronephrosis both urea and uric acid have been absent from the urine, it is possible they may also be absent from the liquor amnii. 5. That the quantity of urea in liquor amnii is very small, not exceeding 5 per 1000. 6. That the gradual decrease in the proportion of albumen in liquor amnii as pregnancy advances (from 10·77 per cent. in the fourth month to 0·82 in the ninth month, as stated by Taylor) gives some support to the view that the fluid of the amnion is constantly altered by the admixture of some non-albuminous fluid such as urine; and that this conclusion will be further strengthened if future analyses show that the proportionate quantity of urea and the salts of urine in the liquor amnii increases as the proportionate quantity of albumen diminishes. 7. That the presence in liquor amnii of other of the constituents of normal urine besides urea gives support to the same opinion. Although there is something revolting in the idea that for a period of many weeks every human being has lived and floated in a medium partly composed of its own urine, yet the fact ought not to be ignored, as it is a matter of great interest and importance in the development of life history of the fœtus; while the condition of the fœtus, which results from an obstruction to the escape of the urine, ought to be borne in mind by the accoucheur, as it may give rise to tedious and protracted labour, or may even render parturition impossible to the mother till after the destruction of her child.

Dr. Grailly Hewitt thought the paper both interesting and valuable. He had himself alluded to the escape of fœtal urine into the fœtal fluids, especially where there had been congenital obstruction of the urethra. Sometimes, too, uric acid crystals had been found in the fœtal kidney.

Mr. T. Smith considered that the author had completely proved his point, and he remarked on the great rarity of cases where there was no mode of escape for fœtal urine as compared with the frequency of imperforate anus. Recently he had seen an interesting example of the two combined.

Mr. Hulke asked whether when there was an obstruction to the flow of urine the amniotic fluid was deficient, but neither the author nor Dr. Grailly Hewitt was able to give a definite answer.

Mr. Sedgwick thought Mr. Morris's views would be accepted by most physiologists. During a certain period of fœtal life there was sugar in the urine, and, at the same time, in the amniotic fluid. In some cases of congenital hydronephrosis operative procedure had been necessary at birth.

Mr. Morris said few cases of congenital nephrosis were notable so early in life. Yet there were some like that mentioned by Mr. T. Smith.

On Athetosis and Post-Hemiplegic Disorders of Movement.

Dr. W. R. Gowers said that the object of this paper was to describe two cases of disordered movement analogous to that to which Hammond has given the name of "athetosis," and to consider the relations of that affection in a general survey of the various forms of unilateral motor disturbances. One of the cases had presented slow involuntary movements leading to various distortions of the hand, and a similar, although less striking, condition in the foot. The condition had supervened on a slight attack of hemiplegia. Under electrical treatment the spontaneous movements, after existing two years, ceased, only inco-ordination of voluntary movement remaining. In the other case the movements were slight, and only characteristic during extension. They had been preceded for some time by unilateral numbness. It was pointed out that neither the clinical history nor the supposed pathology of athetosis affords grounds for separating it from other forms of disordered movement commonly seen after hemiplegia, but any one of which may occur as a primary affection. The essential element in athetosis is a slow remitting mobile spasm, and it differs from the common post-hemiplegic contracture chiefly in the absence of fixed spasm. The varieties of quick intermitting spasm, regular and irregular, were then described, and its effect in producing inco-ordination, both choreiform and violent. In a case of extreme inco-ordination of the arm after hemiplegia, the post-mortem showed a cicatricial induration, extending through the middle of the optic thalamus. There was no secondary degeneration of the spinal cord. In "late rigidity," it was pointed out, two elements may be discerned—one varying, ceasing during sleep, increased by an attempt at movement; the other unvarying. The latter only is to be referred to changes in cord and muscle; the former possesses many features in common with mobile spasm, and is probably to be referred to brain changes. Several illustrative cases were shown, and a table was exhibited, grouping the various disorders of movement under the three heads of "intermitting," "remitting," and "fixed" spasm.

On the Lead Line on the Gums.

Dr. Hilton Fagge read a paper on this subject, of which the following is an abstract:—The author has in two cases investigated the microscopical characters of the gingival tissues when affected with the lead line. He finds that the discoloration is not uniform, but is distributed in the form of rounded loops, corresponding with the vascular papillæ of the mucous membrane. Under a higher power the pigment is seen to consist of granules, some of which are deposited in the interior of the smallest bloodvessels, others immediately outside them. Adopting Mr. Tomes' hypothesis, that the pigment is a sulphuret of lead, and that the sulphuretted hydrogen which forms it is derived from decomposing animal matters, which have been retained in the tartar or between the teeth, the author next points out that the gas must diffuse itself into the textures of the gum, and combine with the lead as it is actually circulating in the blood, or contained in the plasma which is for the nourishment of the textures. The pigment is thus a precipitate from the blood. This view explains the fact that a characteristic line on the gums is sometimes seen in those who have not shown symptoms of lead poisoning. When occurring under such circumstances it has been supposed by certain writers to have been caused by the presence of some other metal, such as bismuth. The author thinks it depends on the very minute quantity of lead which has in such cases gained entrance into the body. Another point explicable upon the author's theory of the lead line, is that the administration of iodide of potassium sometimes brings it out when it had before been absent, and after the individual has ceased to be exposed to the poison. It also follows that the line must be wanting in those who keep the teeth very clean. Lastly, it seems probable that the sulphides of lead must be deposited in the intestinal mucous membrane, likewise under the influence of the sulphuretted hydrogen contained in the bowel.

OBITUARY.

S. TAYLOR CHADWICK, M.D., F.R.C.S. Eng.

Samuel Taylor Chadwick, M.R.C.S., L.S.A. 1831, M.D. Edin. 1848, F.R.C.S. Eng. 1858, died, aged sixty-six years, at Peel House, Southport, on May 3, 1876. He commenced practice at Wigan in 1831, and removed to Bolton in 1837. Possessed of great natural abilities, and of an enthusiastic love for his profession; of good address, and having a kindly sympathy with suffering, he soon gained an extensive and lucrative practice, and a widely spread reputation as a surgeon and physician. In 1848 he had a long and severe attack of rheumatic fever, brought on by fatigue and the exposure incident to his profession, and from the effects of this he never ceased to suffer. He had frequently to give up practice for a time on account of valvular disease (mitral) of the heart and bronchitis; and at last, in May, 1863, he finally retired from active practice, and removed to Southport. For five years he was one of the Honorary Surgeons of the Bolton Infirmary, and had reluctantly to resign from failing health. For fifteen years he maintained at his own cost an institution for the gratuitous treatment of diseases of the eye and ear. He was for three years a member of the Town Council; and in or out of the Council he was an earnest and eloquent advocate of sanitary measures. He was a Justice of the Peace for Bolton. On his removal to Southport he was presented by the gentry of Bolton with two handsome pieces of silver, a candelabrum and a salver; and Mrs. Chadwick was presented with an elegant dressing-case with silver fittings. On the same occasion 7000 of the working-classes subscribed to present him with a lifelike full-length portrait, and Mrs. Chadwick with a beautiful cabinet writing-desk. In 1868-69 Dr. and Mrs. Chadwick made over to trustees £22,000 to build and maintain an Orphanage for children deprived of both parents, in the Bolton Union,—in the first instance for girls, and for boys in default of a sufficient number of girls. The money for the maintenance of the Orphanage was directed to be invested in model cottages to be built in open and airy situations, with wide streets, with all the conditions requisite for health, to have at least three bedrooms in each, and to be let to working men of good character with families. The trustees were to aim at realising no more than 5 per cent. for the money laid out. Seventy-five of these houses have been built at a cost of £15,000, and are all occupied. An Orphanage, capable of accommodating eighty, has been erected, and was opened for the reception of children in December, 1874. After the announcement of the gifts of Dr. and Mrs. Chadwick, a subscription was entered into, and a bronze statue—by the sculptor, Mr. C. B. Birch, and an admirable likeness—of the Doctor erected on the Town Hall-square, at the cost of £950, which was inaugurated on August 1, 1873, in the presence of from 20,000 to 30,000 persons. He has left £5000 to endow a Children's Hospital, if erected within four years; and £5000 for the erection and maintenance of a Natural History Museum in the Bolton-park, if accepted by the Corporation within four years. The remainder of his personal property passes to the trustees of the Orphanage, enabling the whole number of children (eighty) to be admitted. He was interred on the 10th inst., in a vault in Bolton parish churchyard, in which his only children, a girl and a boy, had long previously been interred. A dense crowd was awaiting the arrival of the corpse at the railway-station. Along the funeral route the shutters were up in every shop, and the blinds drawn in every house. Many thousands of people crowded the streets, making them almost impassable, and the church and churchyard were equally crowded with persons eager to pay a last tribute of respect to departed worth.

WILLIAM HOWE, M.D., Inspector-General of Hospitals, Died at 6, Royal-park, Clifton, Bristol, on the 16th inst. He became Assistant-Surgeon in January, 1838; Surgeon in 1846, and Surgeon-Major in 1855. He served in the Crimean campaign from July 27, 1855, including the siege and fall of Sebastopol, and was awarded the medal with clasp, the Fifth-class Order of the Medjidic, and Turkish medal. In 1862 he became Deputy Inspector-General, was placed on half-pay in 1870, and in 1871 attained the honorary rank of Inspector-General.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 18th inst., viz.:—

Barrow, C. A. G., Woolwich.
Buckell, L. M., L.R.C.P. Lond., Romsey, Hants.
Deck, A. E., Halesworth.
Haselden, Robert, L.S.A., Bolton, Lancashire.
Hookham, Paul, Oxford.
Moullin, J. A. M., Porchester-terrace, W.
Orr, J. W., L.R.C.P. Edin., Pemberly, Bedford.
Pickering, C. F., Exeter.
Smith, G. H., Blackheath.
Thompson, E. J., L.S.A., Appleby Magna, Leicestershire.
Turner, W. P., L.S.A., Stamford, Hythe.
Twining, A. H., L.S.A., Walthamstow.
Ward, Alexander, Upper Norwood.
Webster, John, L.S.A., Market Deeping.

Five candidates having failed to acquit themselves to the satisfaction of the Court of Examiners were referred to their professional studies for six months.

The Fellowship.—At the half-yearly primary examination for the Fellowship of the College, on the 23rd inst., the following gentlemen, having undergone the necessary examination in Anatomy and Physiology, will be admitted to the pass examination in Pathology, Surgery, and Medicine when eligible, viz.:—

Anderson, Alexander Richard, student of St. Bartholomew's Hospital.
Birch, Edward Arnold, L.R.C.P. Lond., of the Manchester School, diploma of Membership dated April 23, 1873.
Clarke, William Bruce, of St. Bartholomew's Hospital.
Foster, Jonathan, of St. Bartholomew's Hospital.
Frost, Wm. Adams, L.R.C.P. Edin., of St. George's Hospital, July 22, 1874.
Godlee, Rickman John, M.B. Lond., of University College, July 24, 1872.
Harper, Gerald Samuel, L.R.C.P. Lond., of St. George's Hospital, May 20, 1874.
Juler, Henry Edward, L.S.A., of St. Mary's Hospital, May 7, 1867.
Lowe, Howard Griffiths, of the Birmingham School.
Mackern, John, of Guy's Hospital.
Macready, Christian Horace, of St. Bartholomew's Hospital, July 28, 1874.
Treves, Frederick, L.S.A., of the London Hospital, May 19, 1875.
Weiss, Herbert Foveaux, of St. Bartholomew's Hospital.

The following gentlemen passed on the 24th inst., viz.:—

Alexander, William, student of the Liverpool School.
Bott, H. S., of University College.
Boyd, J. S. N., of University College.
Cantlie, James, of Charing-cross Hospital.
Hayward, T. E., of St. Bartholomew's Hospital.
Lane, Wm., of Guy's Hospital.
Milles, W. J., of King's College.
Newmarsh, B. J., of King's College.
Schofield, R. H. A., of St. Bartholomew's Hospital.
Smith, T. F., of King's College.
Steedman, P. A., of St. Bartholomew's Hospital.
Uhthoff, J. C., of Guy's Hospital.
Wainewright, R. S., of Guy's Hospital.
Williams, D. J., of University College.

Fellows of the College.—The following Members were admitted Fellows of the Royal College of Surgeons at the last meeting of the Council, viz.:—

Hough, James, Cambridge, diploma of Membership dated March 26, 1845.
Leigh, John, Pontypridd, December 31, 1841.

The following were the questions on Anatomy and Physiology which were submitted to the candidates on this occasion, who were required to answer all the questions, viz.:—1. Describe the successive changes undergone by the vascular system from its first appearance to the end of fœtal life. 2. Describe the secretion of the various salivary glands. State how this secretion is affected by nervous influence; and give proofs of each statement you make. 3. Give the dissection required to expose the internal jugular vein from its commencement to the level of the hyoid bone. Describe the course and relations of this portion of the vessel, and mention the veins which terminate in it. 4. Enumerate in their relative positions the parts seen in a horizontal section of the trunk at the level of the third costal cartilages.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 18:—

Badcock, George Sainthill, Camberwell-green.
Simpson, James Herbert, Pontefract.

The following gentlemen also on the same day passed their primary professional examination:—

Hemming, William Douglas, King's College, London.
Lake, William Wellington, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

COLLINS, HENRY, M.R.C.S. Eng.—Medical Officer to Dursley Union, *vice* Francis James Joynes, resigned.

MACLAREN, JAMES, L.R.C.S.E.—Medical Superintendent of the Sterling District Asylum, *vice* F. W. A. Skae, M.D., resigned on his appointment to a Commissionership in Lunacy for New Zealand.

KENDALL, JOSEPH, M.R.C.V.S.—Inspector for the purposes of the Contagious Diseases (Animals) Act, 1869.

THOMAS, LLEWELYN, M.D.—Hon. Physician to the Royal Academy of Music, Hanover-square.

BIRTHS.

DUDGEON.—On May 11, at Broomhill, Dennistown, Glasgow, the wife of John Dudgeon, M.D., of Pekin, China, of a son.

GAMGEE.—On May 16, at 11, Portland-crescent, Plymouth-grove, Manchester, the wife of Arthur Gamgee, M.D., F.R.S., of a son.

GUINNESS.—On May 18, at Tonghoo, British Burmah, the wife of Dr. H. C. Guinness, Surgeon-Major 89th Regiment, and eldest son of Dr. Guinness, of Oxford, of a daughter.

HARRIS.—On May 13, at 1, Darnley-road, Hackney, the wife of Robert Harris, M.B., of a son.

HOPCROFT.—On May 22, the wife of T. F. Hopcroft, M.R.C.S. Eng., of a daughter.

JONES.—On May 12, at The Bulwark, Brecon, the wife of Dr. Talfourd Jones, of a daughter.

LANCHESTER.—On May 17, at Park House, Croydon, the wife of Henry T. Lanchester, M.D., of a daughter.

ROOME.—On May 13, at The Elms, Parkhurst, Isle of Wight, the wife of Henry Roome, M.D., of a daughter.

SINCLAIR-COGHILL.—On May 20, at Ventnor, Isle of Wight, the wife of J. G. Sinclair-Coghill, M.D., F.R.C.P., of a son.

MARRIAGES.

DUFFIN—DRENNAN.—On May 16, at the First Presbyterian Church, Rosemary-street, Belfast, Adam, eldest son of Charles Duffin, Esq., J.P., of Strandtown Lodge, county Down, to Maria, eldest daughter of John S. Drennan, Esq., M.D., of Belfast.

GREENHOW—JONES.—On May 18, at the parish church, Bradford-on-Avon, the Rev. Edward Greenhow, M.A., Inspector of Schools in the Diocese of Llandaff, only son of E. Headlam Greenhow, M.D., F.R.S., to Isabel Mary Rich, eldest daughter of the Rev. Canon Jones, M.A., F.S.A., vicar of Bradford-on-Avon.

HOOPER—GILES.—On May 18, at St. John's, Richmond, Alfred Hooper, M.R.C.S.E., L.S.A.L., of Newhall, Burton-on-Trent, to Helen Louisa, elder daughter of the late William Giles.

MURRAY—FRASER.—On April 20, at St. Paul's Church, Landour, N.W.P., India, John Ross Murray, M.D., Army Medical Department, to Jessie Maria, second daughter of Surgeon-Major Archibald Henry Fraser, late 88th and 40th Regiments.

DEATHS.

DAVIDSON, JOHN, Surgeon (retired) H.M.'s Bengal Army, at 2, Gloucester-crescent, Hyde-park, on May 13, aged 78.

DUNCAN, JAMES, of The Elms, Priory-park, Chichester, youngest son of Robert Duncan, M.D., of Hanover House, Tunbridge Wells, on May 13, at Bognor.

GRAHAM, ELIZA OLIVER, widow of Edward Smith Graham, M.D., late Surgeon 4th (Queen's Own) Hussars, at Douglas, Isle of Man, on May 20, aged 75 years.

HOME, Dr. WILLIAM, retired Inspector-General of Hospitals in her Majesty's Service, at 6, Royal-park, Clifton, Bristol, on May 16.

HOPKINS, ELIZABETH, last surviving daughter of the late Staff-Surgeon John Hopkins Radford, at 45, Ossington-street, on May 13, in the 86th year of her age.

INGLE, ANNA MARIA, widow of Thomas Ingle, M.D., and daughter of the late Henry Browne, Esq., of Portland-place, London, at The Villette, Emsworth, Hants, on May 15, aged 75.

JACKSON, ELIZABETH DADE, wife of Dr. J. Hughlings-Jackson, at 3, Manchester-square, W., on May 23, aged 39.

MALLORY, Dr. HENRY LEIGH, son of the Rev. G. Mallory, of Mobberley, at Frosterley, on May 12, aged 34.

PARK, GEORGE M.A., M.D, of Frazerburgh, Aberdeenshire, Surgeon-Major of the 10th Regiment, at sea, off Ceylon, on board H.M.S. *Himalaya*, homeward bound, on April 24, aged 39.

RENDLE, EDMUND, M.D., at 16, Buckland-terrace, Plymouth, on May 15, in his 76th year.

WARD, WILLIAM, Surgeon, formerly of Bury St .Edmunds, at the residence of his brother, Kew-green, on May 20, in his 70th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess a recognised medical and surgical diploma. Applications, with testimonials, to Hugh Mason, Esq., Ashton-under-Lyne, not later than May 27.

BOURNEMOUTH GENERAL DISPENSARY.—House-Surgeon. Candidates must possess a qualification both in medicine and surgery and be registered. Salary £120, with furnished apartments, coals, gas, and attendance. Testimonials, etc., to R. T. Hearn, Esq., on or before June 15.

BRIGHTON HOSPITAL FOR SICK CHILDREN.—Surgeon. Candidates must be graduates in surgery of one of the universities of the United Kingdom, or Fellows of the Royal College of Surgeons of England. Testimonials to the Chairman of the Committee of Management, on or before June 2.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, or Masters in Surgery of one of the universities of the United Kingdom, and also possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before June 7. Salary, £100 a year, with apartments, board, and washing.

CHARING-CROSS HOSPITAL.—Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Diplomas and testimonials of qualification to Henry Woolcott, Secretary, on or before May 30.

HUNTINGDON COUNTY HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Testimonials, etc., to John Oldman, Surgeon, Huntingdon, on or before May 30.

KNIGHTON UNION.—Medical Officer. Candidates must be legally qualified medical practitioners. Applications and testimonials to Edwin Hooper Deacon, Clerk to the Guardians, not later than June 1.

LONDON HOSPITAL, WHITECHAPEL-ROAD, E.—Fifth Assistant-Physician. Applications, with testimonials, must be sent to the Hospital, on or before May 29. Candidates must be Members of the Royal College of Physicians of London, and are required to attend personally at the Hospital on May 30, at 2 o'clock precisely.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Medical Officer of Lock Ward. Candidates must be registered and unmarried. Salary, with board and residence, £150 per annum for first six months, afterwards £200 per annum. Applications and testimonials to Chairman of the Committee, on or before June 12.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications to the Treasurer, at the Counting-house, Westminster-bridge, S.E.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Falmouth Union.—Mr. Guppy has resigned the Constantine District; area 10,720; population 2644.

APPOINTMENTS.

Blaby Union.—Wm. A. Cox, M.B. Edin., M.R.C.S. Eng., L.R.C.P. Lond., to the Aylestone District.

Hertfordshire.—Charles Meymott Tidy, M.D., as Analyst for one year.

Huddersfield Union.—John Irving, M.B. and C.M., to the Huddersfield South District.

Newton Abbot Union.—Arthur N. Taylor, M.R.C.S. Eng., L.R.C.P. Edin., to the Bovey Tracey District.

Saffron Walden Union.—John C. C. Forsayeth, L.R.C.S., L.K.&Q.C.P.I., to the Fourth District.

St. Neots Union.—Henry A. Hallett, M.D., C.M., M.R.C.S. Eng., L.R.C.P.L., L.S.A., to the Fifth District.

Sheffield Borough.—Alfred Henry Allen, F.C.S., as Analyst for one year.

Totnes Union.—Philip A. Cornish, M.R.C.S. Eng., L.S.A., to the Ninth District. Henry S. Johnson, L.K.&Q.C.P.I., to the Tenth District.

CONSUMPTION OF HORSE-FLESH AT PARIS.—During the first quarter of 1876 the horse-butchers of Paris have furnished 2370 horses, asses, and mules for public food, yielding 429,300 kilogrammes of nett meat—a quantity that exceeds that of the same quarter of last year.—*Progrès Méd*, May 13.

APPLICATIONS IN URTICARIA.—Prof. Hardy recommends the following lotion to be applied several times a day in order to allay the itching in urticaria:—Chloroform ten, and oil of sweet almonds thirty parts. In obstinate cases he prescribes corrosive sublimate one-tenth to one-seventh of a part, alcohol ten parts, and distilled water ninety parts. He gives also internally alkaline medicines, and if these do not prove efficacious he resorts to arsenic.—*Union Méd.*, May 20.

ANTISEPTIC PROPERTY OF BORAX.—Prof. Dumas presented to the Académie des Sciences a note in the name of Surgeon-Major Bédois, in proof of the antiseptic property of borax. Two pieces of meat were placed, the one in ordinary water and the other in a solution of borax. While the former was shortly in a state of putrefaction, the other remained quite unchanged, the microscope being unable to discover in the solution either vibriones or infusoria of any kind.—*Union Méd.*, May 20.

PROLONGED GESTATION.—Dr. Graves, of Lynn, Mass., relates the following case:—Three days before her husband left home, a lady ceased menstruating, and had intercourse with him each of the following nights. Two or three weeks after, she complained of nausea, for which oxalate of cerium was given with good effect. On the night of the 306th day of pregnancy she fell into labour, and was delivered of a child weighing ten pounds and a half. At the expiration of the nine months she had what seemed premonitory pains; but these disappeared. The case is interesting, as the duration of her pregnancy is so well authenticated by the date of the last period and of the last intercourse.—*Boston Journal*, March 30.

GRATIFYING TESTIMONIAL.—Few medical officers in the army have been the recipients of a more interesting and valuable testimonial than has just been presented to Surgeon-Major Logie, of the "Blues," by the past and present officers, on his marriage. The testimonial consisted of a very handsome oxidised silver vase embossed with mythological figures in relief, placed on an enamel plinth with a suitable inscription containing the names of about forty officers who had served with Dr. Logie in the regiment. The vase is so adapted that it may be used as a flower or fruit ornament, and was accompanied by a pair of beautiful magnum claret-jugs in silver gilt, bearing the arms of the Blues, his own monogram, and a suitable inscription from his brother officers.

THE SŒURS DE CHARITÉ IN THE FRENCH HOSPITALS.—We have sometimes had in our own hospitals serious embarrassments caused by the pretensions of the nursing sisterhoods, but these, being under lay direction, are obliged in the long run to submit to the direction of the medical authorities. It seems to be far otherwise in France, where, whatever may be the advantages attending the nursing of the Sœurs de Charité, this is not without most serious inconveniences. The other day we reported the death of a patient under chloroform administered by a *sœur* during turning at the Lyons Maternité, the intervention of the *interne* or *chef de service* not having even been sought for. This case has naturally made a great sensation, and the *sœur* has been dismissed, the *Lyon Médical* expressing its belief that the hospital administration will make such regulations as to render such an occurrence impossible in future. This, the *Progrès Médical* declares, is to indulge in an illusion, for however minute may be the regulations that will be devised, they will prove powerless in preventing the *réligieuses* interfering in medical matters. Every medical man who is acquainted with their practice knows well what to expect on this head, for they consider the hospital almost as their own property, and do not hesitate to modify according to their own ideas the prescriptions of the physicians. Such procedures are not rare, even in Paris itself, where the sisters recipes in the treatment of some diseases, and engage in the in some hospitals think nothing of substituting their own illegal practice of pharmacy. In some of these establishments the medical officers have the greatest possible difficulty in getting incapable *sœurs* removed. This spirit of invasion and domination on the part of the *réligieuses* is often encouraged by their superiors, who employ them in getting the hospitals placed under their dependence. The *Temps* relates that two years since, a bishop announced his inteution to withdraw the *sœurs* from the hospital at Beaufort if a certain "freethinking" doctor was allowed to continue to attend the patients.—*Progrès Médical*, May 13.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Fellow.—There will be a meeting of the stewards of the Fellows' Festival shortly; your application to act as one should be addressed to Mr. William Allingham, F.R.C.S., of 10, Chandos-street, Cavendish-square, the Honorary Secretary. Mr. Curling has consented to take the chair.

C. M., St. Bartholomew's.—The list of the successful candidates at the recent preliminary examination for the Fellowship of the Royal College of Surgeons you will find in another column. The gentleman whose name you will see there is a son of the celebrated tragedian.

Mr. Thompson.—There is one death vacancy to be filled up in July next in the Council of the College of Surgeons, viz., that of Mr. Southam.

A Student.—The University of Innsbrück revived its Faculty of Medicine in 1869. Professor Rokitansky, of Vienna, made an important speech at the inaugural banquet held to commemorate the event.

C. Marcus W.—Dr. Edward Clarke, a physician of some note in America, and who was a professor in Harvard College, in his book "Sex in Education," says:—"The cerebral processes by which the acquisition of knowledge is made are the same for each sex, but the mode of life which gives the finest nurture to the brain, and so enables those processes to yield their best result, is not the same for each sex." He sums up his discussion with the following:—"The intimate connexion of mind and brain, the correlation of mental power and cerebral metamorphosis, explains and justifies the physiologist's demand that in the education of girls as well as of boys the machinery and methods of instruction should be carefully adjusted to the organisation of each individual. None doubt the importance of age, acquirement, idiosyncrasy, and probable career in life as factors in classification. Sex goes deeper than any or all of these. To neglect this is to neglect the chief factor of the problem."

A Good Templar.—The principle of common law, as clearly enunciated by the Liquor Acts, is that a man shall not be allowed to injure himself; and further, that anyone permitting or aiding and abetting him in the self-injury of getting intoxicated shall be liable to punishment.

Philanthropist.—The first Factory Act (42 George III., cap. 73) was passed at the instance of the first Sir Robert Peel, and is generally distinguished by his name. A printing-office, with no matter how few hands, is deemed a factory; while a brewery or distillery, if employing under fifty hands, is a workshop.

Anglicanus.—Bacon says:—"Things which have long gone together are, as it were, confederate with themselves; whereas new things piece not so well, but, though they help by their utility, yet they trouble by their inconformity."

THE BEALE FUND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—May I ask the favour of your acknowledging the additional list of subscriptions in your valuable journal?—Wilson Fox, M.D., £1 1s.; Cæsar Hawkins, M.D., £1 1s.; — Bowman, M.D., £1 1s.; J. S. Bostock, M.D., £1 1s.; Baroness Rothschild, £2 2s.; total, £6 6s. I am, &c.,

197, Junction-road, Holloway, May 18. SARAH BEALE.

NELL GWYNNE'S APOTHECARY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the interesting account of Child's Banking House at Temple-bar, published by Mr. Price in the *Transactions of the London and Middlesex Archæological Society*, there is a facsimile of the receipt given after Nell Gwynne's death by her apothecary. It runs thus:—"Received by the hands of Mr. Child the summe of one hundert and nine pound in full of all remedes and medecins delivred to Mrs. Elliu Gwyn deceased. I say received by me this 17 of November, 1688.—CHRISTIANUS HAREL." The name, style, and spelling show that Christianus Harel was a German. Do any of your readers happen to know his professional status and history, if he had any history? I am, &c., INQUIRER.

POULTICING IN HÆMOPTYSIS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Medical Times and Gazette* for May 13, you quote from the *Union Médicale* of May 4 to the effect that Dr. Noel Guéneau de Mussy recommends hot poultices between the shoulders in hæmoptysis. This seems to be an official recognition of Dr. John Chapman's neuropathic theory and treatment. You do not say whether Dr. De Mussy bases his recommendation on theory or on experiment, but it would be interesting to know whether he accepts Dr. Chapman's doctrine that a stimulant applied to the spine causes vessels to contract, and a sedative such as cold causes them to dilate, through the action of the stimulant or sedative on the vaso-motor nerves. I am, &c., PHTHISICUS.

DUST.

Now the hot weather and the woes of householders begin,—at least, of such as possess noses. The dust-bin, underneath the area-steps, is made the receptacle of pea-shells, lobster-shells, cuttings and fragments of vegetables, used-up nosegays, and all sorts of rubbish. The parish authorities are appealed to in vain to remove the dust. The dust-bin stinks loudly for some days before the cart comes. Then the dustmen demand money. They are bound to remove dust, but they say not trade refuse, nor decayed vegetables. Meanwhile the air of a house, with a festering heap of vegetables close to the front door cannot be healthy; baby gets diarrhœa, and so do older persons. Now, what are the remedies? Clearly nothing should be sent to a town house that is mere offal. First, peas should be shelled, outer leaves removed from cabbages, etc.; secondly, all vegetable refuse should be dried and burned at the kitchen fire; thirdly, if some of it must go to the dust-heap, use carbolic powder liberally, and don't begrudge twopence to the dustman.

UNCERTIFIED DEATHS.

The Registrar-General has again drawn attention to a fact which is worthy, and should be brought before, the notice of our readers. He stated that during the three weeks ending the 6th inst. the causes of no less than 13 per cent. of the deaths registered in Peckham were uncertified, either by registered practitioners or by coroner. This unsatisfactory condition of the death-register is, he says, mainly due to the employment of unqualified assistants by medical practitioners in that neighbourhood.

THE ST. PANCRAS GUARDIANS AND UNNECESSARY INQUESTS.

There is (says a contemporary) a dangerous tendency on the part of local authorities to put a stop to what they term "unnecessary inquests," on the ostensible ground of economy, ignoring the fact that many of the inquests which they consider unnecessary are held on the remains of persons who have no influential friends to inquire into the cause of the abrupt and premature termination of their lives. At the last meeting of the St. Pancras Guardians, considerable excitement was manifested on the reading of a report from the Medical Officer stating that an inquest had been held on the body of a pauper who had fallen from a scaffold, and died from the effect of internal injuries, and it was resolved to address a letter to the Justices, the Lord Chancellor, and the Coroner, on the subject of the "unnecessary inquests" held at the workhouse. Yet, surely, the death of a pauper owing to a scaffold accident is a matter on which some public inquiry should be made, and it is to be hoped that the interests of the general public will, at all events, be considered simultaneously with the wishes of the St. Pancras Guardians.

INFANT MORTALITY.

By the English Life Table, of 100 children born, 15 die in the first year, 5 in the second, 3 in the third, 2 in the fourth, and 1 in the fifth, making 26 in the five years of age. Of the 15 who die in the first year, 5 die in the first month of life, 2 in the second, and 1 in the third. The *annual* rate of mortality in the first week of life in France is 154 per cent. In France, newborn infants who die before registration are recorded as stillborn.

COMMUNICATIONS have been received from—

Mr. WM. GIBBS, Watford; Miss SARAH BEALE, Holloway; Dr. HERMAN, London Hospital; Mr. PERCY C. JONES, London; SECRETARY OF THE LOCAL GOVERNMENT BOARD, Whitehall; Mr. G. BUCKSTON BROWNE, London; Mr. J. F. PAYNE, London; Mr. J. CLEOG, Bolton; Dr. EDIS, London; Messrs. R. E. THOMAS and Co., Falmouth; Dr. EDWARD

Sparks, Montreux; Secretary of the Taunus Company, London; Dr. Morell Mackenzie, London; Mr. T. Whipham, London; Mr. H. Habgood, London; Secretary of the Howard Association of Great Britain, London; Mr. Maclaren, Edinburgh; Mr. Donnelly, Dublin; Secretary of the Society of Medical Officers of Health; Registrar-General, Edinburgh; Dr. Alfred M. Watson, Manchester; Dr. Octavius Sturges, London; Secretary of the British Medical and Social Science Association, London; Mr. W. S. Savory, London; Mr. Jonathan Hutchinson, London; Mr. C. F. Maunder, London; Secretary of the Royal Institution of Great Britain; Dr. Corfield, London; Mr. S. M. Bradley, Manchester; Dr. W. H. Corfield, London; Mr. J. St. S. Wilders, Birmingham; Mr. Charles Higgens, London; Mr. J. Knowsley Thornton, London; Mr. Henry Morris, London; Mr. George Brown, London; Dr. F. Churchill, London; Mr. J. Chatto, London; Mr. J. Hancocke Wathen, Fishguard, Pembrokeshire; Mr. Oglesby, Leeds; Dr. Wilson Fox, London; Dr. F. Roberts, London; Dr. Aust Lawrence, Clifton; Dr. Bathurst Woodman, London; Dr. Wolfe, Glasgow; Dr. Russell, Birmingham; Dr. J. W. Moore, Dublin.

BOOKS AND PAMPHLETS RECEIVED—

C. O. Baylis, M.D., M.R.S.L., &c., Second Annual Sanitary Report upon the Rural and Urban Districts forming the West Kent Sanitary District, 1875—Charles A. Cameron, M.D., On some Fallacies in the Present Method of Calculating the Death-rate in Dublin—Fourteenth Annual Report on the Unsound and Adulterated Food examined, and Chemical Work performed, of the Corporation of Dublin—Dr. C. Sénac-Lagrange, Du Mode d'Action des Eaux Sulfurenses—Edward Sergeant, Report on the Health of Bolton during the Year 1875—Report of the Committee of Management of the Metropolitan Fever and Small-pox Hospitals at Homerton—Philosophy and its Foundations, with an Appeal to Scriptural Psychology—Julius Bernstein, The Five Senses of Man—Eleventh Annual Report of Newcastle-upon-Tyne Borough Lunatic Asylum, 1875—E. A. Parkes, M.D., F.R.S., Personal Care of Health—Alexander Harvey, M.D., A Letter to Dr. Acland on the Teaching of Pharmacy and Therapeutics—Wm. H. Barlow, M.D., On Pseudo-Hypertrophic Paralysis—Annual Report of the Royal Edinburgh Asylum for the Insane, 1875—Stabilimento di Monte-Ortone Commune d'Abano—Chas J. Cullingworth, Hæmorrhage from the Genital Organs in the Recently Born Female Child—A Brief History of the Library of the Manchester Medical Society—Proceedings of the Medical Society of London, vol. ii., 1874-75—William Aitken, M.D., F.R.S., "In Memoriam": An Address on Opening the Thirty-sixth Session of the Army Medical School, Royal Victoria Hospital, Netley, April 3, 1876.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—Nature—The Whitehall Review—The Shield—The Indian Medical Gazette, April—The American Practitioner, May—The Bolton Chronicle—The Students' Journal—Quarterly Return of the Births, Marriages, and Deaths in Ireland—The Lincoln Gazette—United Service Gazette—The Chicago Medical Journal and Examiner, May—The Sanitary Journal, May—Canada Medical and Surgical Journal—Transactions of the Odontological Society of Great Britain, May—Morningside Mirror, March and April.

APPOINTMENTS FOR THE WEEK.

May 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. Henry Morley, "On King Arthur's Place in English Literature."

29. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. W. G. Adams, "On some of Wheatstone's Discoveries and Inventions."

31. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

June 1. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

2. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Roscoe, "Recent Discoveries about Vanadium."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 20, 1876.

BIRTHS.

Births of Boys, 1166; Girls, 1187; Total, 2353.
Average of 10 corresponding years 1866-75, 2123·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	722	619	1341
Average of the ten years 1866-75	694·1	618·0	1312·1
Average corrected to increased population ...	...	...	1404
Deaths of people aged 80 and upwards ...	...	...	60

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	7	7	1	9	...	1	1	1
North... ...	751729	...	8	11	1	15	1	4	...	5
Central ...	334369	...	...	2	...	6	...	...	1	1
East	639111	...	9	4	2	14	2	2	2	2
South... ...	967692	1	17	15	1	21	...	4	2	6
Total	3254260	1	41	39	5	65	3	11	6	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·000 in.
Mean temperature	49·2°
Highest point of thermometer	69·0°
Lowest point of thermometer	32·4°
Mean dew-point temperature	39·6°
General direction of wind	N.E.
Whole amount of rain in the week...	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 20, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1870.*	Persons to an Acre. (1876.)	Births Registered during the week ending May 20.	Deaths Registered during the week ending May 20.	Temperature of Air (Fahr.): Highest, during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.): Weekly Mean of Mean Daily Values.	Rain Fall: In Inches.	In Centimetres.
London	3489428	46·3	2353	1341	69·0	32·4	49·2	9·55	0·00	0·00
Brighton	100632	42·7	47	43	66·0	35·0	47·2	8·44	0·01	0·03
Portsmouth ...	124867	27·8	103	41	...	...	...	...	...	...
Norwich	83430	11·2	55	36	63·5	38·2	46·4	8·00	0·00	0·00
Plymouth	72230	51·8	43	37	62·0	39·0	49·8	9·89	0·00	0·00
Bristol	199539	44·8	145	90	71·6	30·4	49·3	9·61	0·08	0·20
Wolverhampton ...	72549	21·4	60	39	68·7	35·5	47·4	8·55	0·01	0·03
Birmingham ...	371839	44·3	294	154	...	...	...	...	...	...
Leicester	113581	35·5	90	42	65·0	34·0	48·2	9·00	0·00	0·00
Nottingham ...	93627	46·9	72	41	61·7	33·4	46·7	8·17	0·00	0·00
Liverpool	521544	100·1	433	265	59·8	38·9	47·4	8·55	0·00	0·00
Manchester ...	357917	83·4	270	209	67·0	35·0	48·6	9·23	0·00	0·00
Salford	138425	26·8	127	81	62·4	33·1	46·7	8·17	0·04	0·10
Oldham	88609	19·0	60	36	...	...	...	...	...	...
Bradford	173723	24·1	111	78	56·8	38·0	46·2	7·89	0·09	0·23
Leeds	291580	13·5	260	137	60·0	37·0	47·6	8·67	0·02	0·05
Sheffield	274914	14·0	213	147	67·0	34·0	47·4	8·55	0·02	0·05
Hull	136933	37·7	117	61	64·0	36·0	47·0	8·33	0·04	0·10
Sunderland ...	108343	32·8	86	30	65·0	42·0	48·8	9·34	0·07	0·18
Newcastle-on-Tyne	139929	26·1	117	67	...	33·0	...	...	0·00	0·00
Edinburgh	215146	51·3	137	83	66·0	40·0	49·9	9·94	...	...
Glasgow	545144	90·4	433	286	30·9	37·0	49·4	9·66	0·00	0·00
Dublin	314666	31·3	172	151	65·1	32·1	48·9	9·39	0·07	0·18
Total of 23 Towns in United Kingdm	8028595	37·7	5798	3495	71·6	30·4	48·0	8·89	0·02	0·05

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·00 in. The lowest was 29·87 in. on Sunday evening, the 14th inst., and the highest 30·13 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

MEETING
OF THE
GENERAL MEDICAL COUNCIL,
HELD AT THEIR HOUSE, OXFORD-STREET, W.

SECOND DAY—THURSDAY, MAY 25.

AFTER the reading and confirmation of the Minutes,

Dr. STORRAR called attention to a report and certain recommendations which were made by the Executive and Finance Committee, in the year 1870, on the subject of lessening the expenditure of the Council. It was therein recommended that abstracts only be given of the various documents which were placed in the hands of committees for consideration. The object of this was to lessen the expense of the printing. The original documents were to be preserved for reference. He observed that the Minutes of yesterday contained a mass of documents, which, together with the record of the proceedings of the Council, extended over 125 printed pages. He should strongly urge upon the Council to take steps to confine the printed matter within moderate limits, as the funds at their disposal were not unlimited. He had very considerable doubt as to the expediency of printing several of the matters which appeared on the Minutes.

Upon the motion of Dr. ANDREW WOOD, it was resolved that the Council adjourn until half-past five, in order that in the interval various committees might meet for the preparation of business.

The Council resumed its sitting at half-past five, when the following tables, showing the results of the examinations of the licensing bodies, and the returns from the Army Medical Department, were submitted to the Council:—

Table showing Results of Professional Examinations for Degrees, Diplomas, and Licences granted in 1875 *by the Bodies in Schedule (A) of the Medical Act.*

Licensing Bodies.	Degrees and Diplomas.	No. of Examinations to be passed.	First Examination.		Second Examination.		Final Examination.	
			No. rejected.	No. passed.	No. rejected.	No. passed.	No. rejected.	No. passed.
Royal College of Physicians of London	Licence	2	1	7	...	...	21	86
	Membership	3	...	...	...	...	1	15
Royal College of Surgeons of England	Membership	2	256	511	...	...	129	369
	Licence in Midwifery	1	...	...	...	...	2	10
	Fellowship	2	51	39	...	...	17	21
Society of Apothecaries of London	Licence	2	37	221	...	...	9	226
University of Oxford	M.B.	2	4	6	...	...	...	6
	M.D.	Essay	...	...	...	...	...	2
University of Cambridge	M.B.	3	11	27	8	16	6	6(a)
	M.D.	1	...	...	...	...	...	2
	M.C.	1	...	...	...	...	...	...
University of Durham	L.M.	2	1	1	...	...	...	...
	M.B.	1	...	...	...	...	...	2
	M.D.	Essay	...	...	...	...	...	1
	M.C.	2	...	...	...	...	...	...
			Preliminary	Scientific.	1st M.B.	1st M.B.	2nd M.B.	2nd M.B.
University of London	M.B.	3	78	107	21(b)	56(c)	9	19
	M.D.	1	...	...	...	...	4	6
	B.S.	1	...	...	...	...	...	7
	M.S.	1	...	...	...	...	...	...
Royal College of Physicians of Edinburgh	Licence	2	1	7	...	...	60	98
Royal College of Surgeons of Edinburgh	Licence	2	12	23	...	...	18	45
Faculty of Physicians and Surgeons, Glasgow	Licence	2	34	35	...	...	14	21
Royal College of Physicians and Royal College of Surgeons of Edinburgh	Licence in Medicine and Surgery	2	45	50	...	...	40	71
Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow	Licence in Medicine and Surgery	2	3	3	...	...	10	20
University of Aberdeen	M.B.	...	...	...	...	...	...	...
	M.D.	By promotion	...	...	...	...	...	31
	M.B. and M.C.	3	33	65	26	69	13	60(d)
University of Edinburgh	M.B. and M.C.	3	64	123	46	93	10	84(e)
	M.D.	Thesis	...	...	...	...	3	17(f)
University of Glasgow	M.B. and M.C.	3	53	64	20	66	9	42(g)
	M.D.	2	...	1	...	...	3	...
	M.D.	Thesis	...	...	...	...	7	11
University of St. Andrews	M.B.	3	1	...	...	...	...	...
	M.D.	1	...	...	...	...	2	9
	M.C.	...	1	...	...	...	...	...
King and Queen's College of Physicians in Ireland	Licence in Medicine	2	...	1	...	...	16	67
	Licence in Midwifery	1	...	...	...	...	1	77(h)
Royal College of Surgeons in Ireland	Licence	3	62	119	37	59	37	122
	Licence in Midwifery	1	...	...	...	...	2	15
	Fellowship	3	...	3	...	3	...	3
Apothecaries' Hall, Dublin	Licence	2	8	22	...	...	4	23
							Deg. M.B.	Deg. M.B.
University of Dublin	M.B.	2	*Vide* foot-note(i)		...	...	7	39
	M.C.	3	...	...	...	...	6	26
	M.D.	Thesis	...	...	...	...	...	...
Queen's University in Ireland	M.D.	3	60(k)	77	55	71	27(l)	46
	M.C.	1	...	...	...	...	27(l)	38

(a) *Third* is substituted for *final* examination, because every candidate has, subsequently to the third examination, to write a thesis and keep an "Act," in which he is subjected to an oral examination.

(b) Of these, 6 were among the candidates who proposed to go through the examination with the exclusion of Physiology, and 3 were among those who, having previously passed the examination with the exclusion of Physiology, presented themselves to be examined in Physiology only.

(c) Of these, 7 availed themselves of the option of reserving their examination in Physiology for a future year, and 6 who had previously exercised the same option passed in Physiology only.

(d) Of these, 53 took M.B. and C.M., 4 M.B. alone, 2 took M.D. and C.M., and 1 did not graduate; 2 others (now of age) took M.B. and C.M.

(e) Of these, 68 took M.B. and C.M., 14 M.B. alone, and 2 did not graduate.

(f) There were 20 candidates for the degree of M.D. Of these, 17 passed and 3 were remitted in consequence of their Theses not having been considered of sufficient merit.

(g) All these took M.B. alone.

(h) Of these 1 passed in Midwifery and Nurse-tender.

(i) Half M.B. Examinations:—Anatomy (Descriptive), of 55 candidates, 9 were rejected, and 46 passed; Chemistry, of 56 candidates, 13 were rejected, and 43 passed; Botany, of 53 candidates, 19 were rejected, and 34 passed; Materia Medica, of 43 candidates, 14 were rejected, and 29 passed; Physics, of 44 candidates, 6 were rejected, and 38 passed.

(k) Of these, 2 subsequently passed in October, who were rejected in June.

(l) One withdrew.

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who, on August 9, 1875, presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the several Licensing Bodies.

Names of Licensing Bodies.	Qualifications.					
	Number of qualifications.			Deficient in		
	Total.	Number passed.	Number failed.	Anatomy.	Surgery.	Medicine.
Royal Coll. of Physicians, Edinburgh ...	9	9	...	...	...	...
Ditto Surgeons, Edinburgh	3	3	...	...	1	...
Society of Apothecaries, London	2	2	...	...	...	...
Royal Coll. of Surgeons, England	5	5	...	...	...	...
Royal Coll. of Surgeons, Ireland	8	8	...	...	...	...
K. and Q. Coll. of Physicians, Ireland ...	4	4	...	...	...	...
University of Dublin	1	1	...	...	...	...
Ditto ditto ... ...M.B.	2	2	...	...	...	...
Ditto ditto ... ...M.Ch.	1	1	...	...	...	...
University of Edinburgh... ... ...M.B.	1	1	...	...	...	...
Ditto ditto ... ...M.Ch.	1	1	...	...	...	...
University of Aberdeen ... ...M.B.	1	1	...	...	...	...
Ditto ditto ... ...M.Ch.	1	1	...	...	...	...
Queen's University of Ireland... ...M.B.	2	2	...	...	...	...
Ditto ditto ditto ... ...M.Ch.	2	2	...	...	...	...
Total	43	43	...	...	1	...

Remarks.—Total number of candidates, 21; succeeded in obtaining appointments, 15; succeeded in examination, but not in obtaining appointments, 6; failed in examination, *nil*.

It was moved by Dr. Andrew Wood, and seconded by Mr. Turner—"That the table of results of professional examinations for degrees, diplomas, and licences granted in 1875 by the bodies in Schedule (A) to the Medical Act, be received and entered on the Minutes."

Carried unanimously.

On the motion of Dr. Andrew Wood, seconded by Mr. Quain, it was resolved—"That the table showing results of professional examinations for degrees, diplomas, and licences granted in 1875 by the bodies in Schedule (A) of the Medical Act be referred to a committee to consider with reference to so large a number of rejections, and to report thereon."

The Committee consisted of Dr. Humphry (chairman), Dr. Pitman, Dr. Storrar, Dr. Andrew Wood, Dr. A. Smith, Sir William Gull.

The following communication was read by the Registrar:—

Maidstone, May 24, 1876.

Sir,—In compliance with the suggestion you were good enough to make to the deputation who waited upon you yesterday to present a memorial to the Medical Council praying for the registration of foreign degrees, I now, on behalf of the deputation, forward to you a draft of the clauses, and a schedule calculated to meet the case of your memorialists, and which the deputation beg leave respectfully to offer for the consideration of the Medical Council as proper to be inserted in any future amendment of the Medical Act.

I have the honour to be, Sir, your most obedient servant,
(Signed) J. Fred. Plomley, M.D. Bonnes.
Hon. Sec. *pro tem.* to the Deputation.

To Henry W. Acland, Esq., M.D., President of the General Council of Medical Education and Registration.

Suggested Clauses.

1. Every person who is already registered under the Medical Act, in respect of qualifications obtained in the United Kingdom, to whom the degree of doctor of medicine has been or may hereafter be granted, after regular examination by any of the foreign universities mentioned in the schedule to this Act, shall, upon application to that effect, be entitled to be registered in respect of such foreign degrees, in the terms of Section 15 of the Medical Act, and on the same conditions as are laid down in Sections 20 and 21 of the said Act, as applicable to degrees granted by the examining colleges and bodies of the United Kingdom.

2. It shall be lawful from time to time for the General Medical Council to add other foreign or colonial universities to those mentioned in the schedule to this Act, and whenever the said Council shall have determined and issued an order to that effect, the degree of doctor of medicine of such university or universities shall thereupon constitute a qualification entitling any person holding the same to registration under the Medical Act, 1858, subject always to the conditions mentioned in the above-mentioned Sections of the said Act.

Schedule.

Universities of France, Berlin, Brussels, Leipzig, Berne, Zurich, and Vienna; and those of the German Empire.

It was moved by Dr. Storrar, seconded by Dr. Andrew Wood, and resolved—"That the above communication be entered on the Minutes and be referred to the Committee on Bills."

The Council then adjourned to the following day.

Third Day—Friday, May 26.

Dr. Andrew Wood, according to a previous notice, asked the President "in what state the negotiations of English bodies, as regards the Conjoint Scheme, are at the present time."

Mr. Turner, according to notice, asked the President whether he could inform the Council what resolutions the several licensing bodies that had been negotiating for the formation of a Conjoint Board for England had arrived at.

The President: With your permission, I will answer those two questions together. First of all, with regard to the state of the negotiations of the English bodies in relation to the Conjoint Scheme at the present time, I can only inform the Council that they are in an incomplete state. With regard to the second question, whether the President can inform the Council what resolutions the several licensing bodies that have been negotiating for the formation of a Conjoint Board for England have arrived at, I may state that on March 13, 1876, at a meeting of the conference of all the medical societies in England, held at the Royal College of Surgeons of England, the following resolution was passed:—"That the conference of representatives appointed by all the medical authorities in England adopt the scheme for an Examining Board for England as this day amended, and submit the same to the several medical authorities for their consideration." This scheme, so amended, was forwarded to all the licensing bodies by the chairman of the conference, Sir James Paget. The University of Oxford replied assenting to the scheme. The University of Cambridge replied to the effect that the syndicate appointed to consider the scheme were unable to recommend the University to approve the alterations proposed to be made as to the appointment of examiners. The University of London has not replied. The University of Durham has given its assent. The Royal College of Physicians of London approves of the amended scheme, as does also the Society of Apothecaries. The Royal College of Surgeons approves if all the other bodies agree. (Laughter.) It is proper to add that suggestions have been made by the University of Oxford, by the College of Physicians of London, and by the College of Surgeons of England, which, however, are not expected to raise any serious difficulty when the representatives meet again, if the scheme should be generally agreed to. I believe that that will convey, as briefly and as accurately as can be, the present aspect of that question.

Mr. Turner: If I am not out of order, may I ask whether the resolutions come to by the several bodies which you have just read to us can be put on the Minutes so that we may have them recorded? I think it is desirable that the President's answer should be recorded. I want to have before us, as far as possible—if I may be allowed to say so—the words of the several bodies themselves. (Hear, hear.)

The President: I will, if it be the wish of the Council, endeavour to obtain, before the meeting of the Council breaks up, the precise answers that have been given by all the bodies that have answered, as far as possible. Anticipating your wishes, I have two or three of them here. If it be the desire of the Council, I will endeavour to place them all on the programme as soon as I have received them all. If it is the pleasure of the Council that I should make application for them, I will do so.

Mr. Quain then asked, in conformity with a previous notice, whether the President could give any information with regard to a Conjoint Scheme in Scotland and in Ireland.

The President: I am not aware that any communication has been received by the President of the Council on the subject of the Conjoint Scheme in Scotland and Ireland since the last meeting of the Council. I have taken pains to ascertain the general course of the business in this particular, as regards Scotland and Ireland; and by reference to the Minutes of the Council for several years past you will find all the information that I am in possession of. No additional communication on the subject has reached me since the last meeting of the Council.

Dr. Aquilla Smith asked whether it was clearly understood that a Conjoint Scheme, such as was in contemplation, could not come into operation without being approved by this Council. He was told last year, in asking a similar question, that it was not necessary to bring the Conjoint Scheme before the Council.

The President: I will ask Dr. Smith to give notice of the question. (Hear, hear.)

Dr. Andrew Wood said that he had been informed by the chairman of the Vivisection Committee, and the other

members, that their work was still in an incomplete state, like the Conjoint Scheme for England—(laughter),—and that it would be of very great convenience indeed if the Council could adjourn about three o'clock, in order to give them a couple of hours or more to complete their labours. It was of great consequence that their work should be completed, seeing that the Vivisection Bill was being pressed forward in the House of Lords; and, if the Council were to give their opinions to the Government, they must do so as soon as possible. He thought that the Vivisection Committee ought to pledge themselves that the subject should be on the programme for the following day (Saturday).

Mr. Turner asked the President whether, since the Council met yesterday, he had had any communication from the Government on the subject of the Vivisection Bill.

The President: If it be the pleasure of the Council, I will consider that this is a question which, under the circumstances, does not require notice to be given of it. By the desire of the Committee, and at the request of the chairman, Mr. Lister, I have been to the Government this morning, and I have ascertained that in the ordinary course of business in the House of Lords, it is of great consequence that the committee in the House of Lords should be proceeded with on Monday, and therefore that it is of great consequence that a resolution, or opinions in any form whatever, to be given by this Council, should, if possible, be prepared before to-morrow evening. I have undertaken, on behalf of the Council, if it be their pleasure, to transmit to-morrow any communication which the Council may prepare with respect to their opinions on the subject. I think that I ought, further, to add, that, in the event of any of the opinions of the Council being such as to make a postponement absolutely indispensable for the discussion of the question, those opinions and expressions of opinion by the Council will be most seriously considered on Monday, when they fall into the hands of those who have charge of the Bill. To that I would only add this: that Lord Carnarvon, whose Bill it is, has been unfortunately obliged to be out of town in consequence of the most serious and alarming illness of a near relative, and of course that makes a little jarring, as one may say, in the communications, and I have had to seek this information at the other departments of the Government.

Mr. Lister said that the Council were deeply indebted to the President for the steps which he had taken in this matter, and for the information which he had communicated to them. He rose simply to ask whether it would be possible for the Council to meet at an earlier hour than usual on Monday, in case of their not finishing the discussion of the Vivisection Bill on Saturday.

The President said that it was entirely within the province of the Council to suspend their by-laws and standing orders, and to conduct their business in whatever way they thought fit.

Dr. Andrew Wood said that it would not answer any purpose for them to discuss the question on Monday. Their decisions would then be too late for the Government to consider them.

The Registrar read two certificates relating to the conviction of certain practitioners before courts of law at Nottingham and at Liverpool.

On the motion of Dr. Andrew Wood, the consideration of these certificates was deferred till a future occasion.

The following communication from the Board of Trade was read by the Registrar:—

Board of Trade, Whitehall-gardens, May 9, 1876.

Sir,—I am directed by the Board of Trade to acquaint you, for the information of the Medical Council, that they have received a Report from the Superintendent of Mercantile Marine at Poplar, in which he suggests that it would be a great advantage if in cases of registry of medical practitioners the fact that they had been registered were endorsed on their diplomas; and I am to state that the Board will be glad to receive the observations of the Council on the subject.

I am, Sir, your obedient servant,

(Signed) Thomas Gray.

The Secretary, Medical Council, 315, Oxford-street, W.

Sir Dominic Corrigan said that some young men, either through want of money or some other reason, put off their registration until some months after they had got their diplomas. He did not see any occasion for the endorsement of the registration on the diploma. When a man got his certificate of registration, all he needed to do was to append it to his diploma by means of a paper-fastener, and then the object would be gained. The licensing body could not insert on the diploma the fact that a man was registered, for he must get his diploma first before he could be registered; and it would give the licensing bodies a great deal of trouble if they had afterwards to endorse the registration on the diplomas.

Mr. Macnamara said that every person who came to be registered must bring up his diploma. ("No.") The Branch Council in Ireland never registered a name without the diploma being produced; and he thought that it would be an extraordinary proceeding on the part of the Branch Council of England if they allowed a man to be registered on his mere *ipse dixit*. What was there to hinder the branch councils from endorsing on the diploma the fact of registration?

Dr. Andrew Wood said that perhaps it might throw a little light on the subject if he read section 15 of the Medical Act, which said: "Every person now possessed, and (subject to the provisions hereinafter contained) every person hereafter becoming possessed, of any one or more of the qualifications described in the Schedule (A) of this Act shall, by payment of a fee not exceeding £2 in respect of qualifications obtained before the first day of January, 1859, and not exceeding £5 in respect of qualifications obtained on or after that date," and so on. And then there was the proviso—"Provided always that it shall be lawful for the several colleges and other bodies mentioned in the said Schedule (A) to transmit from time to time to the said Registrar lists, certified under their respective seals, of the several persons who, in respect of qualifications granted by such colleges and bodies respectively, are for the time being entitled to be registered under this Act, stating the respective qualifications and places of residence of such persons." He had asked the Registrar how the matter was, in fact, carried on, and the Registrar had informed him that a number of the bodies sent in a list of those persons who had passed and obtained their qualifications, and that that saved the necessity of the applicant bringing his diploma with him. Hence it would be very difficult to put an endorsement upon the diplomas; and it seemed to him to be unnecessary, as the certificate of registration was sufficient.

Sir William Gull proposed that the question be referred to the Executive Committee.

Dr. Quain said that this very question was discussed at the last meeting of the Executive Committee, and the opinion was that the Register itself, or the certificate of registration, was enough. He should say that the Registrar ought to be instructed to reply in that sense to the Board of Trade.

Dr. Aquilla Smith said that, the subject having been before the Executive Committee, there would be no use in referring it to them again.

The President said that it probably had not escaped the notice of members of the Council that some weeks ago a question was put to the President of the Board of Trade as to the number of surgeons in the mercantile marine who were unqualified and unregistered practitioners. He supposed that the present letter from the Board of Trade was the result of that question. There was an item on the programme of the Council which would bring up again the subject of unqualified and unregistered practitioners, and he would suggest that the communication from the Board of Trade be deferred until that item was reached.

On the motion of Dr. Andrew Wood, seconded by Mr. Turner, it was resolved that the letter from the Board of Trade be entered on the Minutes, and that the consideration of it be deferred until a future meeting during the present session.

It was then resolved, on the motion of Dr. Andrew Wood, that the Council adjourn until half-past five o'clock, in order that certain committees might proceed with business in the interval.

On general business being resumed at half-past five o'clock, the following letter from certain Lecturers on Materia Medica in London was read by the Registrar:—

23, Brook-street, W., May, 1876.

Sir,—We, the undersigned Lecturers on Materia Medica and Therapeutics in the medical schools of London, desire to tender our best thanks to the General Medical Council for the consideration bestowed by them upon our memorial of June, 1875, and respectfully to ask what reply, if any, has been received from the licensing bodies to the recommendation based upon our suggestions.

We beg leave to express our general concurrence with Professor Harvey in his letter recently addressed to you, and are of opinion that a further recommendation from your Council to the London medical schools would materially aid us in carrying out the objects we have in view, viz.:—

1st. The postponement of the course of therapeutics to a later stage of the curriculum; and

2nd. The amplification and more practical development of the teaching of pharmacy. (Signed)

Fredk. J. Farre, St. Bartholomew's Hospital.
T. Lauder Brunton.
Sydney Ringer, University College Hospital.
E. Buchanan Baxter, King's College Hospital.
John C. Thorowgood, Middlesex Hospital.
Charles D. F. Phillips, Westminster Hospital.
R. Douglas Powell, Charing-cross Hospital.
J. F. Payne, St. Thomas's Hospital.
W. Moxon, Guy's Hospital.
Robert Farquharson, Hon. Sec., St. Mary's Hospital.

To the President of the General Medical Council.

It was resolved that the foregoing letter be entered on the Minutes, and referred to the Committee of Recommendations.

A letter from Dr. Stewart Lockie on the subject of lunacy certificates in Scotland was received and ordered for entry upon the Minutes.

Dr. Haldane, in calling attention to this matter, said: Without entering into details I may say that the subject is this: At present the certificates of lunacy granted in England are not available in Scotland and Ireland; and, in the same way, certificates of lunacy granted in Scotland and Ireland are not available in England. The result is very considerable difficulty. If a patient has been removed from his own country to another division of the kingdom, it becomes necessary, even if the lunacy has been certified, that it should be again certified upon his arrival at his destination. This subject was brought under the notice of the Council in the year 1868, in consequence of a report from the Scottish Branch Council. It was first considered by the Executive Committee, and then by the General Council. It is mentioned in the Minutes of 1868, vol. vi., at page 5, in the first instance. The question was referred to a committee, who were to consider the subject and consult Mr. Ouvry, the solicitor, and afterwards report to the Council. The Committee accordingly reported, and their report will be found on page 225 of the same volume. This report recommended that a letter, which is given in the Minutes, be signed by the President of the Council and addressed to the Home Secretary. This was done, but up to the present moment no action has ever been taken in the matter, and the inconveniences to which I have alluded still exist. It is for the Council to consider whether any further steps shall be taken in the matter. They acted, as I said, years ago, but no attention was paid to their recommendation. The letter of the Council was acknowledged by the Home Office in a communication in which the writer said—"I am directed by Mr. Secretary Hardy to inform you that he cannot undertake further legislation upon the objects set forth." I beg to move that a committee be appointed to consider this subject, and report to the Council.

Dr. Fleming said that he very well remembered the subject being before the Council on the former occasion. A great deal of discussion then took place. The reason given for the present practice was that the Commissioners of Lunacy of England had no control over the Commissioners of Scotland, and *vice versâ*.

Dr. Andrew Wood said that the Medical Act had provided that every registered medical practitioner should be entitled to sign certificates of lunacy, and one of the objects of the Act was to equalise the practice between England, Scotland, and Ireland. It was quite contrary to the spirit of the provisions of the Act that a certificate of lunacy should be refused in England because it was signed by a Scotchman, and *vice versâ*. If that was not a contravention of the law, he did not know what was. If their remonstrance had failed eight years ago, let them send another remonstrance. There was nothing like importunity in endeavouring to gain riddance of a grievance.

Dr. Storrar agreed with the object which Dr. Haldane had in view. He regarded the present practice not only as a grievance, but as an absurdity, and it was discreditable to the administration of this country that such a state of things should remain. But he did not see what advantage there would be in the appointment of another committee, for when the question was before the Council in 1868 it was very carefully considered by a committee, and the subject was thoroughly threshed out. Probably all that it was in the power of this Council to do would be effected if the President, at the request of the Council, would wait upon Mr. Secretary Cross to ask him to provide a remedy.

Dr. Haldane said that it would, perhaps, meet the wishes of the Council if, instead of his first motion, he moved—"That, as the limitation of the validity of lunacy certificates to the division of the kingdom in which they are first given is still a pressing grievance, the President be requested to lay before the Home Secretary all the previous Acts of this Council on the matter."

The motion was seconded by Sir William Gull, and carried unanimously.

It was then agreed that the standing orders should be suspended, and that the Council should meet at twelve o'clock to-morrow (Saturday) instead of one.

The meeting was then adjourned.

Fourth Day.—Saturday, May 27.

The following Report of the Committee on Lord Carnarvon's Bill for the Regulation of Vivisection was submitted to the Council:—

1. The Committee having considered the Earl of Carnarvon's Bill, intituled "An Act to prevent Cruel Experiments on Animals," recommend to the Council to address her Majesty's Government to the following effect:—

2. This Council being charged by Law with the duty of superintending the course of medical studies in this country, cannot be indifferent to any legislation affecting physiological teaching and research.

3. The General Medical Council, while deeply impressed with the importance of avoiding the infliction of needless pain in the performance of experiments on living animals, regard such experimentation as indispensable to the advancement of physiological and medical knowledge.

4. The Council are not aware that in regard to these experiments such abuses have existed in the British islands as to justify exceptional legislation restrictive of physiological study and research; but they would, nevertheless, be glad to assist the Government in framing a measure which may give all reasonable securities against any possible abuse.

5. The General Medical Council would respectfully suggest to her Majesty's Government that the following amendments should be made in the Bill:—

(*a.*) In Clause 3, sub-clause 1, the performance of experiments is limited, "with a view only to the advancement by new discovery of knowledge which will be useful for saving or prolonging human life, or alleviating human suffering." The General Medical Council would remark that any proposal to limit experiments to such as may be immediately applied to some prophylactic or therapeutic end, and to forbid them in cases where they are made purely for the advancement of science, is contrary to the opinion of the Royal Commission on the practice of subjecting live animals to experiments for scientific purposes, as expressed in their Report (p. xviii.), where it is pointed out that such a "proposal cannot be sustained by reflection upon the actual course of human affairs. Knowledge goes before the application of knowledge, and the application of a discovery is seldom foreseen when the discovery is made." Further the Council would remark that this sub-clause, by limiting experiments to those which will be useful for saving or prolonging "human" life, or alleviating "human" suffering, would prevent researches from being carried out with reference to the prevention and treatment of the diseases of the animals themselves. The Council would, therefore, recommend that the following be substituted for Clause 3, sub-clause 1:—"That the experiment must be performed with a view to the advancement or to the communication of physiological or medical knowledge."

(*b.*) The limitation of all experiments to registered places, as proposed in Clause 3, sub-clause 2, would not only tend seriously to obstruct genuine scientific inquiry, but would also prove impossible in practice. The General Medical Council, however, would see no objection to the limitation being applied to such experiments as are performed for purposes of demonstration. Physiological laboratories, and other public institutions in which experiments on living animals might be carried on for educational purposes, would thus, by a further provision of the Bill, be subjected to visitation by inspectors; while private researches, which, in competent hands, might prove of the highest value to mankind, and ought by no means to be prohibited, would, by the system of personal licence and certificate, provided for in other clauses, be restricted to individuals of assured character and attainments. The Council would accordingly suggest that the sub-clause be amended, as follows:—"The experiment, if for purposes of demonstration, must be performed in a registered place."

(*c.*) In sub-clause 1, page 2, line 17, after the word "foregoing," the words "or following" be inserted; and that in line 22 the word "due" be inserted before "instruction"; also that after the word "knowledge," in line 24, the remaining words in lines 24 and 25 be omitted.

(*d.*) With reference to Clause 4, the Council are of opinion that, in the present state of knowledge as to the properties of urari or curare, it is inexpedient for Parliament to declare, as in this Bill, that this drug shall not, for the purposes of the Act, be deemed an anæsthetic. They would see no objection to the enactment, in lieu of Clause 4, of the following:—"That no substance should be deemed to be an anæsthetic until it has been proved to be so."

(*e.*) As to Clause 5, the General Medical Council do not see sufficient reasons for specially exempting dogs and cats from experiments. On the contrary, they feel that such exemption would withdraw from investigation carnivorous animals of great value for the purposes of research; whilst further the communicability of certain diseases—rabies (hydrophobia), and the diseases dependent on the tapeworm (echinococcus)—from these animals to man, renders it specially inexpedient that the dog and cat should be exempted from experimental inquiry.

(*f.*) That in order to bring Clause 7 into accordance with the suggestion made under Clause 3, sub-clause 2, the Council would suggest the insertion in line 26, after the word "place," of the words "to be registered."

(*g.*) The provisions of Clause 9 appear to the Council not only beyond the necessities of the case, but such as might be made vexatious and oppressive. The Council would suggest that the objects of the Act would be carried out by the following clause:—"The Secretary of State may in any case, where he deems it necessary, call upon any person licensed under this Act to supply him with information respecting experiments carried on under this Act."

(*h.*) As regards Clause 10, the General Medical Council think it indispensable for the just working of any system of inspection under this Act, that every person appointed to act as an inspector should be scientifically

competent to appreciate the nature and intention of such experiments as he may witness; and the Council would therefore recommend that such modifications be made of Clause 10 as may secure this essential object.

(*i.*) To the list of presidents named in Clause 11 should be added:—"The President of the Royal Society of Edinburgh, the President of the Royal Irish Academy, the Vice-Chancellors and Principals of the Universities in Great Britain or Ireland; and also that the Professors of Medical Jurisprudence and Materia Medica should be added to the list of Professors named in the Bill." To persons in the higher ranks of science engaged in special research, the frequent application for a certificate, such as seems to be required in Clause 11, would seriously interfere with their labours. The Council would therefore suggest that the following addition be made after the word "section" to the last paragraph of that clause:—"And may also, on recommendation of the functionaries above specified, exempt by special licence any licensed person approved of by them from the necessity of producing such special certificates as are mentioned in Clause 3."

(*j.*) In the matter of appeal in Clause 16, the Council are of opinion that any licensed person who thinks himself aggrieved by the judgment of a court of summary jurisdiction, should have the option of appealing to a superior court instead of the Court of Quarter Session.

JOHN LISTER, Chairman.

On the motion of Mr. LISTER, chairman of the Committee, seconded by Sir WILLIAM GULL, it was resolved that the foregoing Report be received and entered on the Minutes.

Mr. LISTER moved, and Dr. HUMPHRY seconded—"That this Council do resolve itself into a committee for the purpose of considering this Report."

Sir DOMINIC CORRIGAN: I rise, Mr. President, to propose an amendmeut. The amendment is in these terms—"That while expressing our abhorrence of the infliction of needless pain upon any living animals, we are of opinion that the consideration of Lord Carnarvon's Bill, named 'An Act to prevent Cruel Experiments on Animals,' does not come within the province of the Council, whose duties are limited by the Medical Act of 1858, and following Acts; and considering, moreover, that the Government have not asked for our advice or interfereuce, we decline, as a Council, to take any action in regard to the Report."

The amendment was seconded by Dr. A. SMITH.

Sir WILLIAM GULL said that the question whether the Council should consider the subject had been already determined. He appealed to the President whether such was not the case.

The PRESIDENT said that, on the point of order, he felt it his duty to rule that the amendment could not be entertained. His reason was that the subject of the Council taking up the question was decided on May 24 by a motion which would be found on the Minutes of that day. It was resolved on that day that the Bill presented to the House of Lords should be entered on the Minutes. That motion was proposed by Sir Dominic Corrigan. A member of Council who had successfully carried a motiou for entering the Bill on the Minutes could hardly propose now that no further proceedings on the subject should take place.

Sir DOMINIC CORRIGAN asked whether it was to be understood as the universal rule that if he moved that a document be entered on the Minutes he could not afterwards propose that they should not consider it.

Dr. AQUILLA SMITH, as the seconder of the motion for entering the Bill on the Minutes, wished to make a personal explanation. He had simply moved, as a matter of business, that the Bill should be entered on the Minutes; but he did not commit himself in any way for or against the Bill.

Sir DOMINIC CORRIGAN asked whether he should not be at liberty, on the bringing up of the Report of the Committee, to bring forward the resolution which the President had just rejected.

The PRESIDENT said that it was unnecessary to decide that question at present.

The motion that the Council should resolve itself into a committee of the whole house was then carried. It was determined to consider the Report paragraph by paragraph.

The PRESIDENT: The questiou has been put, whether, in a committee of the Council, it is the custom that reporters should be present. I think it right to say that, reserving the usage of the Council to do as they think fit in the matter, on this occasion (unless the Council should decide otherwise) I should be disposed, on their behalf, to rule that reporters be present. (Hear, hear.)

The first paragraph of the Report was unanimously adopted.

Mr. LISTER: As the teaching of physiology is proposed to be regulated by the Bill, there cannot, I imagine, be any doubt whatever that the Council cannot be indifferent to any legislation which affects it. I therefore move that the second paragraph be accepted.

Seconded by Dr. HUMPHRY.

Mr. LISTER: I think it is peculiarly the duty of this Council to interpose at present in what may really be regarded as a serious crisis in the legislation of this country. There can be no party on whom it devolves more clearly and more seriously to take up a question of this kind than a body of this nature, which has to superintend the direction of education, as well as of examination; and a body consisting of persons who are, perhaps, peculiarly qualified to consider this question, and whose opinions should be regarded on this question, forasmuch as they really are personally but little interested, and in taking it up they are doing so simply as a questiou which will promote the welfare of this country, as well as the welfare of our profession. And I do conceive that the welfare of the country is seriously concerned in the questions which are raised in this Bill; and, therefore, it does particularly behove the Medical Council to entertain a question of this kind.

Sir WILLIAM GULL said that he was very much astonished, and he thought that every member of this Council must feel astonished, that they, having been appointed by law as a Council to supervise the course of medical and physiological study in this country, should not have been consulted by the Government before the Bill was brought in, and that the Government should have proceeded to legislate without any communication at all with the Council. Personally, he felt it a grievance. He was summoned from his duties by the Government, and asked to sit on that Council; and then left to learn by accident that such a Bill was before Parliament. That Bill would affect all the teaching of medical and physiological students in this country. If members of the medical profession could sit there and consider that that was not a very extraordinary fact that ought to be very prominently brought before Parliament and before the public, he confessed that he differed entirely from them. Legislation by persons who were utterly unacquainted with the subject would have proceeded to actual law without the Council being able to take any part in the matter, unless they had, by the veriest accident, learned what was going on. It was a dereliction of duty on the part of the Government towards every member of the Council, and towards every institution in which medical and physiological science was taught, that a free Government should proceed in so arbitrary a manner to interfere with the rights of persons to pursue science in their own way.

Dr. THOMSON said that he entirely agreed with the observatious which had fallen from Sir William Gull. He believed that it was important that the Council should establish their position which had been so well stated by Sir William Gull, and express their feelings that they ought to have been consulted. If it was considered prudent and proper, he should be very glad to move an amendment to the effect that the Council regret that the Government did not think it proper to consult them before undertaking legislation on this subject.

Sir DOMINIC CORRIGAN, in reply to the observations of Sir William Gull, defended the course which the Government had pursued. He believed that that course was exactly in accordance with the provisions of the Medical Act of 1858. The words of the Medical Act were—"In case it appear to the General Council that the course of study and examinations to be gone through in order to obtain any such qualification from any such college or body are not such as to secure the possession by persons obtaining such qualification of the requisite knowledge and skill for the efficient practice of their profession, it shall be lawful for such General Council to represent the same to her Majesty's most honourable Privy Council." The clause simply gave the Council power to pronounce an opinion, or to appeal to the Privy Council in case it appeared that the course of examinations and study to be gone through were not such as to secure the possession of the requisite knowledge. Would anyone say that under that clause, as it stood, they were entitled to meddle with vivisection? Did vivisectiou, or the possession of the knowledge acquired from it, prepare a man for possessing the knowledge and skill requisite for his profession? Surely nobody would entertain such a proposition as that. Then it was said that they were to put themselves in opposition to the Government, and declare that the Government ought to consult them. Consult them upon what? Upon what did not come withiu their province! The Government had been censured very strongly by Sir William Gull for not consulting them, but he (Sir Dominic) contended that the Government had acted strictly in accordance with the Medical Act of 1858. There was no understanding between the Council and the Government that

in the event of the introduction of a Bill, such as that of Lord Carnarvon, which dealt with the question of professors teaching their students more than was required, the Government should go out of their line and consult the Council. There was an old saying in Ireland, and a very good one—"Don't put your poker into another man's fire." He believed that that was what the Council were doing at present.

Mr. Quain agreed very much with what Dr. Thomson and Sir William Gull had said; but he doubted whether it was judicious to adopt the expression of regret suggested by Dr. Thomson.

The President pointed out that the words proposed by Dr. Thomson did not alter the second paragraph, but merely constituted an addition to it.

The second paragraph of the Report was then unanimously adopted.

On the question of the addition which had been proposed by Dr. Thomson,

Dr. Andrew Wood said that he quite agreed with what had been said by Sir William Gull on the subject. This was exactly a case in which the Government ought to have consulted the Medical Council, for he believed that there was no member of the Council who would not see the fallacy of the argument of Sir Dominic Corrigan, that they had nothing to do with the subject of vivisection, as it did not interfere with the possession of the knowledge necessary for the practice of the profession. He (Dr. Wood) contended that the practice of vivisection did bear upon the subject of the possession of the necessary knowledge; for one of the requirements of the Council was that physiology should be learned by the student, and that the student should be examined in that subject. But he was glad to say that the Government had lately been in the habit, more and more every day, of consulting the Council upon questions bearing upon the important objects with which they dealt; and he doubted whether it was judicious to run amuck against the Government and pass what, as it appeared to him, would constitute a vote of censure upon them. Whether their doing so would help the objects which they had in view was a question for them to consider. It was all right that Sir William Gull should have stated what he had, and his remarks would be reported and carried to the public; but it was a different question whether, in an official document, the Council should put themselves into antagonism with the Government who had been treating them so well of late.

Dr. Pitman said that the Council ought to keep in mind the amount of medical evidence which had been given before the Royal Commission. Had there been no such evidence, it might have been desirable that the Government should have consulted the Council; but it could scarcely be said that the Government did not take pains to ascertain the opinion of the profession.

Dr. Thomson said that he had no wish to press the rider which he had suggested as an appendage to the paragraph, and he would, therefore, withdraw his proposal.

Mr. Lister then moved the adoption of the third paragraph of the Report. He said that it was needless to remark on the first clause of the paragraph. With regard to the latter portion of it, he supposed that everybody connected with the Council knew that physiology, medicine, and surgery owed an incalculable debt of gratitude to experiments on living animals. They had to consider the two points of the taking of the life of animals, and the infliction of pain on animals. As regards the taking of life for the noble and exalted objects which experimenters in physiology had in view, it was inconsistent for a man to object, while, at the same time, he had no objection to sit down to an elaborate dinner of fish, flesh, and fowl; or while he had no objection to cracking fleas and bugs, or drowning the superfluous kittens of a litter. As to the infliction of pain, perhaps the case was not so obvious; and yet the infliction of pain was universally regarded to be justifiable if some important human interests were concerned, and even if human comfort, or human enjoyment, could be promoted by it. People would subject a fox to all the mental torture which it might be conceived to undergo when tracked and followed by dogs, and to the physical suffering and constantly increasing fatigue which it experienced during the chase; and these experiences were finally wound up by the fox being worried by the dogs. But, leaving the question of sport, it must be remembered that the great majority of domestic animals were subjected to an exceedingly painful operation. In the case of lambs, for instance, the shepherd's tooth was the agent by which the operation was effected; and in the case of horses a barbarous instrument, such as he had seen in veterinary establishments, was used for the purpose of performing torsion upon the cord to prevent hæmorrhage. He was told that not only were these operations very painful, but that they frequently gave rise to very serious inflammation; and yet they had been continually performed, and they would probably be repeated as long as man existed in his present condition. The object sought, in the case of horses, was to fit the animal to be a drudge; and the object, in the case of lambs, was to render them better fitted for the food of man. Yet the experience of vegetarians had shown that animal food was not necessary for the support of life; and as to the use of horses, we might bear our own burdens, and walk instead of ride. The operations in the cases which he had named were merely for the purpose of promoting human convenience and human luxury; and he contended that the objects promoted by vivisection were infinitely higher. No man, he supposed, objected to setting a trap for a rat; and yet the pain suffered by a rat which was caught by the legs, and exposed for hours to the cold, was, probably, greater than that caused by any experiment in vivisection. He supposed that even Mr. Hutton himself would not object to keep a cat to catch a mouse. *Qui facit per alium, facit per se.* The way in which a cat played with a mouse was to him (Mr. Lister) a thing which he could not bear to watch; and yet many persons could watch it, not only without aversion, but even with some amount of pleasure. Therefore, as he had said, it was universally admitted that the infliction of pain was justifiable for human luxury and human comfort. If they considered the quantity of pain which was caused by the castration of domestic animals under the circumstances which he had described, and which was going on continually all over the country, the quantity of pain in the case of vivisection was, in the abstract, absolutely microscopic. It ought to be distinctly understood that while the Council were impressed with the importance of avoiding needless pain, it did not regard the pain caused by operations in vivisection as a matter of very deep importance. It was, in fact, a subject upon which there was confusion in the public mind. The pain inflicted in the winging of pheasants in a single day's shooting was, probably, greater than that caused by vivisection in the British islands throughout the whole year. The infliction of needless pain during vivisection would probably have a hardening effect both on the investigator and on the students; and it was in that point of view that the Council were impressed with the importance of avoiding that infliction.

Dr. Humphry seconded the motion. He said that this was really the important question in the Bill. There could be no doubt that as civilisation advanced, and as men became clustered together more closely, and the varieties of disease went on steadily increasing, there must necessarily be a deterioration, both physical and moral, among the people. There could be no doubt that this deterioration could be met only by those measures which civilisation enabled them to carry out; and those measures must consist of advancing medical and sanitary science; and this advancement must depend, a very great deal, upon progress in physiological and pathological research by experimentation upon animals. The great advances in physiology and medicine had resulted, for the most part, from experiments upon animals; and if they looked to the future they must, in the main, go to the same source for further advancement. Researches on dead structure had been pretty well worked out, and there would not be any very great progress in the future arising from the investigation of dead structure. They must now investigate the living process, and it was quite clear that that could only be done by observation upon living animals. Any legislative enactment which would seriously curtail the opportunities of carrying out such investigations would be most detrimental to the future moral and physical welfare of this country. It therefore behoved the Medical Council to take this matter into serious consideration, and to enter their solemn protest against such legislation. His experience was that the estimation of pain in others was most especially felt by those who had the greatest opportunities of observing it; and there were no men who so seriously regarded the infliction of pain, or were so anxious to mitigate suffering, as were those medical men who most frequently witnessed it. Whilst, as a Medical Council, they were willing to make all allowance for the public feeling on this matter, he, nevertheless, thought they had a right to complain that there had not been fairness mingled with that feeling towards medical men, and towards those whose duty

and whose pain it was to prosecute physiological investigations upon living animals. There had been a desire to bring before the public facts which indicated the existence of cruelty on the part of physiologists, and due weight had not been given to the care which was taken by them to prevent pain. It was frequently his duty to witness vivisection experiments at the University of Cambridge; but he did not know that he ever witnessed one in which needless pain was occasioned. He was sure that if the Council of the University became aware of the practice of inflicting needless pain, the practice would be stopped. He believed that if legislation took place at the present time, under the influence of popular excitement, it would be most uncalled-for, and most detrimental to the welfare of the country.

Dr. Aquilla Smith said that if the Bill was passed some very nice distinctions would probably arise. Vivisection meant the cutting of living animals, and this would continue to be practised in such cases as those which had been referred to by the last speaker, while scientific investigators would be placed under restrictions in the matter.

Sir William Gull repudiated the suggestion which had been made by the opponents of vivisection, that medical men were indifferent to pain. He wished to point out that they were the discoverers and appliers of anæsthetics. That simple fact alone showed that they were not in the least indifferent to the existence of pain. *Cæteris paribus*, medical men would be as considerate of the sufferings of the lower animals as of those of human beings. No man would be more sensitive to pain than a medical man. English practitioners were essentially considerate of pain in any form. He knew nothing that was more cruel than ignorance. The more knowledge, the more feeling. A gentleman had left, as a legacy to the College of Physicians, an annual sum for the establishment of an oration, whereby the Fellows of the College should be stirred up to search into the secrets of nature by way of experiment. That man was Harvey, who, after many and difficult vivisections, was able to establish the fact of the circulation of the blood. The Council were now, 240 years afterwards, trying to convince the public that experimentation was necessary. As medical men they were, above all people, interested in a proper study of nature. There were two sorts of knowledge in the world. There was the knowledge that satisfied, and there was the knowledge that did not satisfy,—and the latter was the true knowledge. The public were satisfied with knowledge which was enough for them, but medical men must keep alive to the fact that such knowledge was often vague and hurtful. They knew very little about living things at present. In a certain way he had been studying them for a great many years, but he confessed that, the more he thought of any living fact, the more he seemed to be outside of it. If they were ever to become more than traders on the public, they must understand what men's illnesses were, and what was their nature, and what treatment was requisite. They must get far ahead of the Pharmacopœia and the drugs and prescriptions applicable to the treatment of this and that disease. They must tell the Government that they needed to examine living things in order that they might treat living men.

Dr. Rolleston said that the question before them could scarcely be whether experimentation on living animals was indispensable. Having gone through the literature of the question with tolerable exhaustiveness, he had found only one person who disputed the indispensability of experiments on living animals, and that was a professor of surgery at Boston. Though he (Dr. Rolleston) had heard with much pleasure, and entirely agreed with, the speeches that had gone before, he must say that the third paragraph was not the one on which to take the issues which had been raised. They would arise when they came to consider, not the indispensableness of the experiments, but their indispensableness within limitations. In allusion to what Professor Humphry had said as to the public mind being in a state of excitement on this subject, he wished to remind them that there had been an outcry and clamour ever since the year 1863, and there had scarcely been a British Association meeting for the last thirteen years at which abuse had not been brought upon himself, however undeservedly, in connexion with this subject.

The motion for the adoption of the third paragraph was then carried.

Mr. Lister moved the first part of the next paragraph, down to the word "research." He said that he rejoiced that this paragraph was the unanimous expression of the Committee, and he trusted that the Council would endorse it as unanimously. The amount of evidence collected by the Royal Commission had verified what was, no doubt, the opinion of all the members of the Council previously, namely, that, with very trifling exceptions—certainly not such exceptions as to call for legislation—there existed a deep and true feeling of humanity towards the lower animals on the part of all teachers and experimenters throughout the British islands. They had had evidence that medical students were animated by the same sentiments; and teachers had said that, if they brought painful experiments to be exhibited before the classes, they would not be tolerated by the students themselves.

Dr. Humphry seconded the motion. He remarked that the paragraph did not assert that there had not been any abuses. It would be only reasonable to suppose that, among such an enormous number of investigations as had been conducted, some abuses might have taken place. But legislation ought to be based on assured facts which were sufficient to justify it.

In pursuance of a suggestion made by Dr. Aquilla Smith, the words "existed or" were inserted after the word "abuses."

Sir William Gull said that a communication had been made to the Senate of the University of London that a charge of abuse had been brought against an assistant-professor at the Brown Institution. The matter was considered by the Senate very carefully, and a committee was appointed to inquire into it. When he (Sir William Gull) mentioned that the secretary of that Senate was the Master of the Rolls, they would know with what legal acumen the inquiry was carried on. He was glad to be able to say that the report of the University of London was that no such abuses had taken place, and that the accusations were a grave calumny. Words were added to the report of the committee by the late Sir Edward Ryan, who had been Vice-Chancellor of the University, to make it clear that the whole get-up of the accusations was in the worst faith possible. He (Sir William Gull) was told that one of the influences which had moved the Government to promote the proposed legislation was the charge which had been made against the Assistant-Professor of the Brown Institution; and yet, when the subject was inquired into, it was found that there was no ground for the accusation. Therefore, as a matter of fact, there were no grounds to justify legislation.

Mr. Macnamara believed that it was very important that all persons who had any knowledge on this subject should speak out what they knew on this point, that it might go forth to the public. Connected as he was with a very large school—that of the Royal College of Surgeons of Dublin,—he was in a position to state that a most unfounded suspicion of cruelty had taken possession of the public mind. He believed that no cruelty existed in the Irish schools. The physiological experiments on animals were conducted in a most humane manner, and experiments were not repeated unnecessarily.

Mr. Turner said that the passage which was now before the Committee was one of the most important passages in the Report. Many of the members of the Council had themselves appeared before the Royal Commission to give evidence on this very matter. There appeared to be no evidence that the biological investigations of this country ought to be subjected to the exceptional legislation which was proposed in the Bill. When he first read the Bill he had a feeling of excessive soreness. It appeared to him almost in the light of a personal insult to himself and to all other men engaged in biological study. The term "cruelty" meant the wanton and wilful infliction of pain, and in that sense it was not a term which ought to be employed in connexion with experiments for medical, physiological, or scientific purposes. He looked upon the proposed legislation as entirely uncalled for, and as a truckling to popular clamour.

Dr. Thomson, as a teacher of anatomy and physiology of long standing, thought it right to bear his very decided testimony in favour of the view which was stated in the clause. He had had opportunities of becoming acquainted with a great many physiologists, and of watching the progress of physiological investigation in this country, and his view was that there was, on the part of teachers and students, the very reverse of any feeling approaching to cruelty, and an absence of the careless infliction of pain on animals. His experience was that students would have a natural reluctance to witness experiments occasioning needless pain, and they were even reluctant to witness experiments where the pain was necessary.

Dr. Quain said that he happened to be chairman of the

committee which investigated the charge of cruelty against Dr. Klein, of the Brown Institution, to which Sir William Gull had alluded. The committee which investigated that charge passed a resolution which was proposed by Dr. Carpenter, and seconded by Mr. Hutton, vindicating the character of Dr. Klein against the accusations which were made against him. That committee sent a report to the Senate of the University of London; and there happened to be present at the Senate the Master of the Rolls, who said, "I think this is a sort of compromise. I am not satisfied with it. I should very much like that it should be investigated by the Senate." An inquiry was held, and the Master of the Rolls went into the matter in the most accurate and careful manner. The gentleman who made the accusations was present, and the subject was investigated most thoroughly and with the greatest acumen. The present outcry had arisen on account of the evidence by Dr. Klein, as recorded in the report of the Royal Commission. The charges had been referred to in the *Times*, and had been quoted by Lord Shaftesbury and Lord Carnarvon; but there was not the slightest particle of truth in the statements which had been made. Dr. Klein was a foreigner, and when he was before the Commission he was made to say what he never intended to say. The most that was alleged as to his experiments was that, in order to demonstrate the structure of the cornea of the eye, he had occasion to scrape with a knife the cornea of a frog, and apply nitrate of silver to it; and that a boy at the Brown Institution had cut off the tail of a live rat. Mr. Klein required to demonstrate the structure of fibrous tissue or tendon, and he instructed a boy to get him a rat's tail. The boy caught the rat, and, instead of killing it and cutting the tail off, he cut off the tail of the living rat. Perhaps it might be a question for the rat to decide whether it would rather be killed for the sake of its tail, or lose its tail and be allowed to live. Dr. Quain then read some passages from Mr. Klein's evidence before the Royal Commission, to show the nature of his experiments, and added that it must be remembered that the witness was a foreigner, and did not fully understand the bearing of the questions. It was a great pity that Government should undertake to legislate upon such feeble grounds.

The first portion of paragraph 4 was then adopted in the following form:—"The Council are not aware that in regard to these experiments such abuses exist, or have existed, in the British islands, as to justify exceptional legislation restrictive of physiological study and research."

Mr. Lister then moved the remaining portion of the fourth paragraph. He said that, though he did not believe that there were any abuses calling for legislative interference, he found that there was a universal opinion that legislation was inevitable; and therefore it seemed that the only possible course for the Council to pursue, with any chance of advantage, was to endeavour to diminish the evils of legislation as much as possible, by securing modifications in the Bill.

Sir Dominic Corrigan moved that the concluding words of the paragraph be altogether omitted.

Dr. Apjohn seconded the amendment.

The President said that a negation of the motion would secure the object which Sir Dominic sought, and an amendment was unnecessary.

Mr. Simon, alluding to the evidence which had been given by Dr. Klein, said that the witness was not always sufficiently precise and qualified in his answers, and that he had intended that the views which he expressed should apply only to vivisection as practised by himself, but they were taken by the Commission as intended to apply to vivisection generally. When Dr. Klein spoke of the administration of chloroform as being absolutely unimportant, he meant that it was unimportant in the experiments which he performed in his own researches; he did not mean that it was unimportant in vivisection generally. He was speaking of operations of no more importance than vaccination or inoculation, and in which there was no suffering at all. This was misrepresented by the Commission, and they would not admit his corrections of his evidence in the body of the report, although they inserted his corrected proof as an appendix. He (Mr. Simon) looked upon Dr. Klein as having been made, to a great extent, a scapegoat, and he could not say that he had been fairly treated in the matter. He regretted that such treatment had happened to a most meritorious fellow-student. He (Mr. Simon) was willing to admit the claims of the lower animals, but he would not for the sake of a wilderness of monkeys have treated a distinguished fellow-student in the way in which Dr. Klein had been treated. With regard to the resolution, he thought that they might express their willingness to assist the Government, but with a qualification. The Bill was restrictive and exceptional, and perhaps even the promoters of it hardly knew what they would bring upon themselves by its exceptionality. The word "animal" in the Bill had no definition, nor was the word "painful" defined. If the Bill became law without proper qualifications, the legitimate rights of scientific research would be seriously hampered. He thought that the Council ought to protest against the Bill. The spirit of the measure was certainly not justified by facts, and it was a matter of regret that such a Bill should have been introduced by her Majesty's Government. The Royal Commission exonerated the physiologists of this country from entertaining any improper feeling with regard to the sufferings of animals. And, that being the case, they all felt that the Bill had been introduced mainly on account of popular agitation and panic on the subject. He had a thorough sympathy with the public in this matter, and he entertained the sincerest respect for the feeling which led them to take a very warm interest in the protection of the lower animals, but he could not disguise the fact that public feeling had been excited by very gross misrepresentations, and that cases had been dug up from records of fifty years ago for the purpose of horrifying the public. Besides this, the public had been forgetful of the vivisection which was done by themselves, right and left, all over the country, in the mutilation of domestic animals by hundreds of thousands for the convenience of man. If this could be justified, would not the same argument cover the infinitesimally small amount of pain which was inflicted for physiological purposes? If the public could see the cases in the proper light, it would see that it was denouncing its own acts far more than those of physiologists. The fact was that the public

> "Compounds for sin it is inclined to,
> By damning those it has no mind to."

Dr. Andrew Wood proposed as an amendment that the latter portion of paragraph 4 should read thus,—"But, if legislation on this subject be deemed necessary, the Council are prepared to assist the Government in framing a measure which may give all reasonable securities against abuse."

The amendment was seconded by Mr. Macnamara.

Dr. Rolleston said that the real issue was whether they did or did not think that legislation was advisable. He believed that it was advisable, and he held that opinion for the very same reasons which the Royal Commission had laid before her Majesty. Those reasons were five in number. The Royal Commission included two men of science, Mr. Erichsen and Professor Huxley, and those gentlemen, having most patiently gone through a very painful investigation, reported that they were satisfied that evils existed sufficient to justify legislation. It had been said in the present discussion that the evil was only microscopic; but microscopic germs might be potent for much mischief. Speaking in the interests of physiology, he would say that, if the science was to be extended, they must have the co-operation of the great mass of the people, and, therefore, legislation was advisable upon that ground. Believing implicitly as he did in development, he was perfectly convinced that the present sensitiveness of the public was a development of civilisation. The present public opinion was a thing that would not go up like a firework and die out. He had had most painful experience of it himself at the British Association meetings ever since the year 1863. He did not think it was an ephemeral feeling dependent upon fanaticism, but he believed that it was the outcome of the evolution upwards of our moral sentiments, and the Council would do wisely to accept legislation upon the subject. The fourth reason put forth by Huxley and Erichsen was that the practice of vivisection was liable to abuse; and their last argument was that legislation would prevent scandal, outcry, clamour, suspicion, and abhorrence. That was another reason why legislation would be expedient. To these reasons he would add that it was in the interest of medical education that sensitive persons should not be deterred from entering the medical profession by the existence of scandal attaching to part of the education. And, besides and beyond that, he believed that legislation was required for reasons of a sociological character. Legislation ought to give effect to the moral sense of the community at large. He apprehended that that moral sense had had ample time during the last thirteen years to shape itself. No legislation could afford to despise such opinions as were expressed now by people occupy-

ing responsible places, and who were as free from fanaticism and clerical influences as any persons could be. Lord Coleridge was an instance of the kind of persons to whom he referred. He, therefore, held that legislation was called for by the moral sense of the community. They got public opinion crystallised and brought into something like a solid form out of floating opinion as it passed through that very rough mill the House of Commons, where they had chairmen of quarter sessions, and people with, and people without, ideas. He believed that it was possible to reconcile sensibility with science, and the instincts of humanity and compassion with a passion for the pursuit of pure knowledge.

Sir Dominic Corrigan said that he believed that the movement for legislation was led by a number of pious and well-meaning ladies who knew nothing about the subject. He recently conversed with a lady of that description, and he convinced her that, whenever she ate an oyster for the gratification of her own stomach, she inflicted an amount of suffering much greater than that which she would condemn in the lecture-room, and for which Lord Carnarvon's Bill proposed a heavy fine. The result was that the lady declared that she would never eat an oyster again as long as she lived! From his knowledge of the House of Commons, he believed that the view as to the necessity of legislation did not at all agree with that expressed by Dr. Rolleston. From what he had heard expressed in the House, he believed that the Bill was regarded as a great humbug from beginning to end.

The President was about to put Dr. Andrew Wood's amendment, when

Sir Dominic Corrigan claimed that his amendment (that the latter portion of the fourth paragraph should be entirely omitted) should be submitted to the meeting first.

The President said that that amendment being a mere negative he did not consider it necessary to put it to the meeting, but he would submit it for the sake of expediting matters.

A show of hands was then taken, and Sir Dominic Corrigan's amendment was lost.

Dr. Thomson, in alluding to the latter part of the fourth paragraph of the Report, said that the Council was scarcely called upon to assume the duty of assisting the Government in legislation. Their business was to direct legislation into a proper channel. When the opportunity presented itself he should move as an amendment the words—"Should legislation be undertaken, this Council trusts that, while it gives all reasonable security against any possible abuse, it will not interfere with the due progress of scientific knowledge."

Dr. Aquilla Smith agreed with Dr. Thomson that they were not called upon to offer assistance to the Government.

Sir William Gull said that it was thoroughly understood by the Council, and thoroughly known out of doors, that there would be legislation. That legislation was, in fact, far advanced, and it was of no use to ignore that fact. He thought it was quite becoming in the Council to go to the Government and show that there was nothing factious in their action, although he agreed that legislation was not necessary. Sir William then went on to condemn Lord Carnarvon for having introduced the name of the Sovereign into the debate in the House of Lords, by stating that the subject was one which had interested the people of England, "from the Sovereign on the throne" downwards. He (Sir William) regarded the introduction of the name of the Sovereign as a very grave matter, and it was an act for which Mr. Disraeli had strongly condemned the member for the University of London.

A modification was made in Dr. Wood's amendment, and it was then passed in the following form, with four dissentients:—"As legislation on this subject is deemed advisable, this Council are prepared to assist the Government in framing a measure which may give all reasonable securities against any possible abuse."

This amendment having thus become a substantive resolution,

Dr. Thomson proposed as an amendment—"But, assuming that legislation is now to be undertaken, this Council trust that that legislation, while it gives all reasonable security against any possible abuse, shall be such as not to interfere with the progress of knowledge."

The amendment was seconded by Mr. Turner, supported by Dr. Aquilla Smith and Dr. Rolleston, and carried by a majority of 13 to 5.

The amendment was then put as a substantive motion, and carried without further opposition.

Dr. Thomson suggested that the words "that this view" should be prefixed to the fifth paragraph.

Mr. Lister moved the adoption of the fifth paragraph with the modification suggested by Dr. Thomson.

The motion was seconded by Dr. Humphry.

The President said that, before putting the motion to the meeting, he thought it right to state that, when he was examined before the Royal Commission as President of the Medical Council, he avoided expressing any opinion which would in any sense be thought to be the opinion of the Council. He then said that he felt that it was his bounden duty to state that, as far as his knowledge went, he did not think that legislation was necessary. Now, however, under the circumstances which at present existed, and in the present state of public opinion, and looking at the matter practically, whether as a scientific man, as a member of the Council, or as an Englishman, he was quite convinced that legislation had become necessary, and that any attempt to stop it would be as futile as it would be undesirable. He therefore joined heartily with those who desired to assist legislation to the best of their ability.

The motion was carried unanimously.

The debate was then adjourned till two o'clock on Monday.

Fifth Day—Monday, May 29.

The Council again resolved themselves into a Committee to resume the consideration of the report of the Committee on Lord Carnarvon's Bill on Vivisection.

Mr. Lister said that it was proposed to make a slight addition in paragraph (*a*) of the Report as at first presented:—"In the first place, the Council would point out to her Majesty's Government that the word 'animals' is not defined in the Bill; and unless it is defined, not only will physiological studies be embarrassed in a degree which the Council believe is not intended, but also the Secretary of State will be charged with responsibilities which he would find it difficult to meet, with regard to the lower forms and lower states of animal life. The Council are of opinion that for the purpose of this Bill the word 'animals' should bear the same meaning as it bears, or in future legislation may be made to bear, in the general law of the land with regard to cruelty to animals. The Council would accordingly suggest the insertion of an interpretation clause providing that, for the purpose of the Act, the word 'animals' should have the same meaning as it has in Martin's Act, or may have in any future amendment of that Act." He said that there were various forms of animals which differed in a vast degree as to sensitiveness. There were animals which were claimed as such by the zoologist, and which might also be claimed by the botanist. It was a long debated question with regard to sponge whether it was animal or vegetable, and it was now believed to be an animal; but he supposed that nobody would hold that a sponge had any feeling; and between the sponge and human beings there were many gradations. An Act making it illegal to operate on sponge, or even on some higher forms of life, would be a very stringent one. There was already legislation with regard to cruelty to animals, and he suggested that new legislation intended to deal with physiological researches should go upon the same lines and principles as existing laws with regard to cruelty to animals. To deal with one class of Acts on the same principle as the others would be an intelligible thing.

Mr. Simon seconded the motion.

Sir William Gull said that he should be very glad to vote for what Professor Lister advised, but he felt that it was quite contrary to what the Government had brought in, and that it would not pass. The object of the Government was to extend the operation of law beyond the range of Martin's Act, which chiefly related to horses and domestic animals. The Council would have to modify the terms of Professor Lister's motion and make a compromise. He rather doubted whether they would succeed in attempting to define the word "animal."

Mr. Simon said that he recognised the difficulty fully, and he was quite aware that the intention of the Government was to bring under the protection of law some animals which had not yet that protection; but it was important that the Council should put clearly before Parliament, that if it protected the animals that were concerned by the law simply in their relation to physiological experiments, it would be doing a piece of fancy legislation. If it protected a frog or a tadpole against the so-called vivisector, it ought equally to protect the same animal against the angler, who trolled with the frog or the tadpole, and who used for trolling purposes many more frogs than the physiologists used for experiments. He

thought it was desirable that that should be made as clear as possible by their asking those who were going to legislate, at least to define what they meant by "animal."

Dr. Quain supported the motion. He was aware that it was extremely difficult to determine or to define the word "animal"; but it ought to be defined in a criminal Act which involved fine or imprisonment. It was about to throw upon medical men the responsibility of determining what an animal was. Parliament ought to be called upon to define the term distinctly.

Sir Dominic Corrigan said that they had now come to what was a very troublesome point to settle. There was an animal on which vivisection had been performed for a considerable number of years, and that was a bee, which often had its abdomen and its thorax twisted asunder in order to deprive it of its honeybag. It ought to be defined whether such an animal should come within the operation of the Act.

Mr. Lister said that he felt that there was considerable force in what Sir William Gull had said; but, at the same time, as the Bill stood, a frog would be classed along with a cat.

Sir William Gull: Say "warm-blooded animals."

Mr. Simon said that there was confusion between what was right in morals and what was right in the matter of legislation. Speaking with regard to the question of conscience, he supposed that they ought to feel as little entitled to hurt a mollusc or a frog as to hurt a cow or a horse. But when they came to the question of legislation the case was different. "*De minimis non curat lex.*" The words of the Bill, as they stood, would bring under the supervision of the Secretary of State any tadpole which the experimenter might have under his microscope for the purpose of making experiments on the circulation in its tail. It would be morally wrong to hurt it; but it could not, in any reasonable sense, be considered a matter for Government inspection, or for great State functionaries to deal with.

Mr. Turner said that the difficulty as to the motion seemed to have arisen from the introduction of the term "Martin's Act." He had not seen Martin's Act; but, judging from the way in which it was referred to in the Report of the Royal Commission on Vivisection, it seemed to extend mainly to domestic animals. He would suggest that the proposed addition to the Report should stop prior to the sentence in which Martin's Act was referred to. It was clear that the Government would not limit the Bill to Martin's Act, which did not include frogs, guinea-pigs, and other animals which were not domestic. He therefore thought that the Council ought to limit themselves to asking the Government to define the word "animal."

Dr. Humphry very much doubted whether it would be wise to ask Parliament to define in this case. He thought that it would be better, in an instance of this sort, that the Act should be left vague. If there was a definition, that definition would, probably, include much more than they desired. He could not conceive that any conviction would take place under the Act for investigations on such of the lower animals as had been referred to. But if a conviction did take place, he believed that it would raise a feeling on the subject, and lead to the prevention of such a thing in the future.

Dr. Rolleston said that if he was to identify himself with the Council in this matter he should urge them strongly not to accept the addition. If they went before the legislators with fine-drawn distinctions, their objections would appear puerile, and the Council would not be regarded as a practical body. As everybody had observed, slugs would bite big pieces out of one another, and they did not seem to mind it the least in the world. As to the merits of the case, if they would look at Professor Gamgee's evidence in the Blue-book, they would see that he felt so strongly about the frog, that after he had cut the head off he still destroyed the brains, because he believed that sensibility might go with the decapitated head. As to the distinction between cold-blooded and warm-blooded animals, there could be no doubt that a very great amount of sensibility remained in the heads even of warm-blooded animals when they were severed from the body. He hoped they would not go into such minutiæ, and try such fine distinctions as had been proposed, or their influence with men of sense would be diminished.

Mr. Simon said that the practical question which Professsor Rolleston had overlooked was whether persons engaged in physiology should have to go through all the processes requisite for obtaining certificates before they could experiment on frogs. The physiologist was just as much bound to be tender of conscience in the case of a frog as in the case of the higher animals; but the question was whether the law of the land was to take a frog under its protection in such a manner that professors of physiology must keep an account of every frog on which they experimented, and must have the sanction of the Secretary of State for their proceedings.

Dr. Rolleston could not quite see that that was the practical question arising under that part of the report. They were not yet dealing with the question of the register which was to be kept. The question was whether it was possible to make a difference between warm-blooded and cold-blooded animals, which was a most artificial distinction.

Dr. Andrew Wood held that it would be refining rather too much to go into the matter, and he did not think they would be helping their object by calling upon the Government to define what an animal was. The very beginning of the Act said, "Whereas it is expedient to amend the law relating to cruelty to animals by extending it to the cases of animals who for medical, physiological, or other scientific purposes are subjected when alive." They all knew what those animals were, and he could not conceive that the Government would exclude cold-blooded animals. He thought that the introduction of this clause would be a piece of surplusage.

Sir Dominic Corrigan said that it was very well to say that the Act would be administered by men of common sense, and that they would understand what was to be regarded as an animal. He would recall to their recollection a case which had occurred in England within the last fortnight, in which a magistrate reproved a constable for killing a mad dog. The magistrate said that, according to the English law, the constable ought to have brought the dog before him, that he might determine, either from his own common sense, or by the aid of a jury, whether the dog was mad or not. Under the proposed Vivisection Act, a magistrate would be obliged to act according to law, no matter how absurd the law might be, and not according to his common sense. The magistrate might say that he must convict a boy, according to the law, for depriving a bee of its honey-bag, although his own common sense might be against the conviction. Unless they knew what an animal meant, they would be liable to prosecution for cutting up a hydra or a frog; and unless the word "animal" was defined, physiologists would be liable to prosecution for every experiment they made upon any creature, from a tadpole to a whale. It would be a good thing to ask the House of Lords to define the word, for it would take them the rest of the session, and then they would get rid of the Bill.

Dr. Quain said that the magistrates would have to administer the law, and, if the Bill was passed in its present form, the pupil of a country practitioner would be liable to prosecution for pinning a slug to a card for the purpose of examining its circulation. If the word "animal" could not be defined, the only thing that could be done by the Council would be to show that the term was an indefinite one, and to suggest that there should be a schedule of animals which might, or might not, be operated upon.

Mr. Lister said that reflex action most intimately simulated the appearances due to sensation; and the lower we went in animal life the more did reflex action show itself, while, as we had reason to believe, sensation was diminished. For instance, the worm drew itself into its hole when touched; but did physiologists really believe that the sensation of the worm was proportionate to the activity with which it drew itself into its hole? Surely not! The brain of the worm was utterly insignificant, while what corresponded to the spinal ganglia were very strongly marked. If they decapitated a frog, and put a piece of mustard upon his shoulder, the frog put up his hind leg, and struck off the mustard. It had been argued that he felt after his head was off, while many physiologists held that the frog, under those circumstances, had no sensation. There was no reason to measure true sensation by the amount of motion under stimulus. The lower we went, the more did reflex action take the place of true sensation. He felt that it was an exceedingly serious thing that physiological inquirers should be put under the necessity of submitting a frog to anæsthetics before experimentation. For the purpose of bringing the matter to a point, he would suggest that the words "warm-blooded animals" should be introduced into the Bill, instead of the word "animals."

Dr. Rolleston disapproved of the distinction between warm and cold blooded.

Sir Dominic Corrigan observed that confusion doubly con-

founded came upon them the more they meddled with the definition.

Mr. Macnamara said that the Council did not ask the Government to bring in the Bill, and it was not the business of the Council to define the word "animal." He suggested that they should leave it entirely to the Government to define what an animal was. He further suggested that the proposed new clause should end at the words "lower states of animal life."

The additional paragraph, down to the point indicated by Mr. Macnamara, was then carried unanimously. A vote was then taken upon the remaining portion, which was negatived.

Mr. Lister said that it was proposed to amend Clause (*a*) in the Report by introducing, after the words "when the discovery is made," the following words:—"With this opinion of the Commissioners the Council entirely coincide, for it is impossible to foresee, respecting any proper experiment upon an animal, that it may not lead to the saving or prolonging human life, or alleviating human suffering." He confessed that when he first read the sub-clause to which these remarks applied, he thought that it was to be susceptible of a liberal interpretation; but he found that physiological teachers were very apprehensive indeed that that clause might operate with very serious evil effects on their teaching, more especially on the teaching of those who were engaged in biological research. The clause might be understood to prohibit their continuing their biological teaching as illustrated in any way by physiological experiments; and, certainly, that view seemed to be confirmed when they came to look at one of the exceptional clauses on page 2 of the Bill, which said—"Experiments may be performed not directly for the advancement by new discovery of knowledge which will be useful for saving or prolonging human life, or alleviating human suffering, but for the purpose of testing a particular former discovery alleged to have been made, for the advancement of such knowledge as last aforesaid, on such certificate being given as is in this Act mentioned, that such testing is absolutely necessary for the effectual advancement of such knowledge." It seemed incredible that the Government of this country should have brought forward a proposal which contained such arrant Philistinism as that. It would be a very grievous evil if physiological experiments were to be absolutely prohibited to others than medical students. The University of London included biology and physiology in the B.A. degree, and students for that degree would be deprived of physiological experiments if the clause which he had just read were carried into law. Again, it was easily understood that it was impossible to tell what a discovery might lead to. Galvani's experiment on the frog was a vivisection, and yet we all knew that if it had not been for that experiment we might have been to this day without the electric telegraph, which was essential to the working of the railway system of the country. If the clause was passed, physiological research would be most seriously hampered. He would move the adoption of Clause (*a*) of the Report, with the addition which he had read.

Dr. Rolleston seconded the motion. He said that he was entirely at one with Professor Lister on the subject. The clause showed a very low state of morality on the part of those who drew up the Bill. In effect it said, "We will not allow you to do anything unless you can show that it will benefit us." That was very low ground.

Sir Dominic Corrigan said that the more they examined the Bill, the more nonsensical it appeared. He took exception to the phrase "with a view" in the Bill, as being inconsistent with sense. Anyone who had taken a very long walk in the sheep-feeding districts of Ireland and Scotland knew that one of the most pleasant breakfasts in the morning was a pie made of lambs' tails, and those tails were cut off from living lambs. That, surely, was a case of vivisection performed "with a view" of prolonging human life; for people could scarcely get anything else to eat, and unless they ate lambs' tails they would starve. Who was to be a judge of what the view was?

Dr. Humphry said that there was no clause in the Bill which indicated more clearly than the one in question that the Bill had been drawn by persons who were really ignorant of the subject upon which they were attempting to legislate. Every person was aware that a vast number of the experiments which were performed were not performed for the sake of a new discovery of knowledge, but for the correction of former observations. Perhaps the greatest amount of new discovery was made when experiments were being performed with a view to testing an old discovery. As had been remarked, it was quite impossible to tell what experiments would or would not tend to the prolongation of human life. Few of the experiments which had resulted in the prolonging of human life, or the alleviation of human suffering, had been made with that view in the first instance.

Clause (*a*), as amended, was then carried unanimously.

Mr. Lister next proposed the adoption of Clause (*b*), with the following amendment—namely, the introduction, after "educational purposes," of the words "and in which by far the greater number of the original investigations contemplated under this Act would also be conducted." He said that this was a point on which he felt very strongly, although some of his friends, who were professors of physiology, had not felt so much about it. A professor of physiology did all his work in a physiological laboratory; and, therefore, to have his laboratory registered would be no hardship. But there were others who wished to perform experiments, and who did not live near a physiological laboratory. It was one of the characteristics of genius to attain great ends with small means. By this Bill, private practitioners would be prevented from performing experiments which might occur to their minds, and which might lead to important results. He related instances from his own experience of important experiments which he had performed in his private lodgings and elsewhere, and which he would have been altogether unable to carry out if he had been restricted from using any other than a registered place. He earnestly hoped that the Council would protest in the strongest manner against the restriction which was proposed. Again, he felt very great difficulty in restricting experiments to persons who were licensed. Such restrictions might be a great impediment to young men full of genius and fresh from their studies. To nip in the bud one single fruitful idea might do incalculable and irreparable mischief.

Sir Dominic Corrigan objected both to the clause and to the comments which had been made upon it by the committee. He did not think that in all the Acts of Parliament he had ever read he had met with a specimen of greater absurdity, or what he might call incompatible nonsense. He had made experiments which he could not have made under the restrictions proposed in the Bill, and those experiments had led to important results.

Dr. Rolleston seconded the motion. He thought that the Government would do well to accept the suggestion of the Council.

The clause, as amended, was then carried unanimously.

Clause (*c*), in the following altered form, was then proposed by Mr. Lister—"(*c.*) In Clause 3, sub-clause 1, page 2, line 17, the Council would suggest that after the word 'foregoing' the words 'and following' be inserted; and that in line 22 the word 'duc' be inserted before 'instruction'; also that after the word 'knowledge' in line 24, the remaining words in lines 24 and 25 be omitted."

Mr. Lister observed that under the clause the experimenter was ordered to make the whole of the experiment while the animal was under the influence of some anæsthetic. That plan could not be carried out in every case, and if a departure had to be made from it, the experimenter must go to the Secretary of State and explain that the anæsthetic was not needed before he could dispense with it.

The motion was seconded by Dr. Rolleston, and carried unanimously.

Mr. Lister then moved, and Dr. Humphry seconded, the adoption of Clause (*d*), which, after some little discussion, was adopted in the following modified form:—"(*d.*) With reference to Clause 4 the Council are of opinion that in the present state of knowledge as to the properties of urari, it is inexpedient for Parliament to declare, as in this Bill, that this drug shall not, for the purposes of the Act, be deemed an anæsthetic. They would see no objection to the enactment, in lieu of Clause 4, of the following—'Neither urari nor any other substance shall be deemed to be an anæsthetic for the purposes of this Act until it has been proved to be so.'"

Clauses (*e*) and (*f*) were carried without alteration.

On Clause (*g*) being moved by Mr. Lister,

Sir Dominic Corrigan said that there had been a most important omission in passing over Clause 8, which said—"There may be annexed to such licence any conditions which the Secretary of State may think expedient for the purpose of better carrying into effect the objects of this Act." This would put experimenters altogether at the mercy of the Secretary of State, who might impose any conditions which he

liked. He could not understand how the committee could have passed over that tyrannical provision—namely, that the Secretary of State could annex any conditions he pleased to the licence.

Dr. Rolleston rose to order. He said that it had been distinctly understood that they were to go through the clauses in the Report first.

Clause (*g*) was then carried.

Clause (*h*) was carried without discussion.

On the next clause (*i*) some discussion arose as to the persons who ought to be allowed to give certificates in accordance with Clause 11 of the Bill.

Various suggested additions to the list as given in the Bill were made in paragraph (*i*) of the Report of the Committee as first presented. Some further additions were now proposed and agreed to, and Clause (*i*) of the Report was eventually carried in the following altered form:—"To the list of Presidents named in Clause 11 the Council would suggest should be added—The President of the General Medical Council, the President of the Faculty of Physicians and Surgeons of Glasgow, the President of the Royal Society of Edinburgh, the President of the Royal Irish Academy, the Vice-Chancellors, Heads, and Principals of the Universities in Great Britain and Ireland. And also that the Professors of Medical Jurisprudence and Materia Medica should be added to the list of professors named in the Bill. Also that after the word 'professor' in lines 21 and 24 the word 'lecturer' be inserted. And after the word 'charter,' line 27, 'or in a medical school recognised by any of the bodies named in Schedule (A) to the Medical Act.' To persons in the higher ranks of science engaged in special research the frequent application for a certificate, such as seems to be required in Clause 11, would seriously interfere with their labours. The Council would therefore suggest that the following addition be made after the word 'section' to the last paragraph of that clause:—'And may also, on recommendation of the functionaries above specified, exempt by special licence any licensed person approved by them from the necessity of producing such special certificates as are mentioned in Clause 3.'"

Mr. Lister next proposed the following new clause, which would take a place in the Report between Clauses (*i*) and (*j*):—"Referring to the legal proceedings provided for in Clause 13, the Council would suggest that, as all registered places included in this Act are subject to inspection by inspectors appointed under this Act, the power of initiating legal proceedings should be limited to those officials, and that warrants authorising any officer or constable of police to enter and search should only be issued with respect to places not registered under this Act. The Council would suggest that on page 5, line 10, the following words should be inserted after 'place'—'not registered under this Act.' The clause would then read—'A justice of the peace, on information on oath that there is reasonable ground to believe that experiments in contravention of this Act are being performed in any place not registered under this Act, may issue his warrant authorising any officer or constable of police to enter and search such place, and to take the names and addresses of the persons found therein.'"

Dr. Rolleston thought that the clause in the Bill might be considered to be framed rather in the interests of physiologists than otherwise, as it would take away any undue suspicions which might arise. It was known that a justice of peace might send a constable or officer of police directly any scandal arose, the suspicion would collapse, and there would be an end of all mischief and trouble.

Sir Dominic Corrigan objected to a constable being authorised to make the search, and contended that the search ought only to be made by an officer of police, by which he meant a person above the position of a common policeman. All he asked was that the duty should be performed by some person of character and responsibility. In some parts of Ireland there would be no difficulty in getting some persons to go before a justice of the peace and say that there was reasonable ground for suspicion.

Dr. Humphry did not see any objection to the clause as it stood in the Bill. Unless there was reasonable ground for suspicion, nothing would be done.

Mr. Simon objected to the duty of searching being assigned to a constable. He knew many instances in which people's feelings had been greatly hurt by a policeman entering the house.

Dr. Storrar said that if they struck out the word "constable," they would strike out every police officer in the kingdom.

Dr. Thomson said that it was clear that some person who objected to vivisection altogether might lodge information upon oath to the effect that experiments, in contravention of the Act, were being performed. He would throw upon the justice of the peace the responsibility of judging whether there was reasonable ground for suspicion.

Dr. Rolleston remarked that publicity was the antidote of suspicion.

Mr. Simon suggested the introduction of the words "if he see fit" between the word "may" and the word "issue." That would leave the justice of the peace open to take the course of writing to the Secretary of State.

Mr. Lister said that he should be quite prepared to adopt Mr. Simon's suggestion.

The clause was ultimately passed in the following altered form:—"The Council suggest that in Clause 13, line 10, page 5, the words 'if he see fit' be inserted after the word 'place.'" This clause was then lettered (*j*).

On the motion of Sir Dominic Corrigan, seconded by Dr. Rolleston, it was resolved to suggest that the word "constable" be omitted from Clause 13.

The last clause of the Report, which now became Clause (*k*) was carried unanimously.

The Council then resumed, and it was thereupon resolved that the Report, as amended, of the Committee on Lord Carnarvon's Bill be received and entered on the Minutes.

Dr. Andrew Wood said that if any of the members had any riders to propose, he would have them put on the programme for the following day.

The Council then adjourned.

ORIGINAL COMMUNICATIONS.

A NEW METHOD OF PERFORMING PLASTIC OPERATIONS.(a)

By J. R. WOLFE, M.D., F.R.C.S. Ed.,
Surgeon to the Glasgow Ophthalmic Institution; Lecturer on Ophthalmic Surgery in Anderson's University.

Mr. President and Gentlemen,—I wish to exhibit to you two cases of plastic operation performed by a new method. By plastic operation I mean the transference of skin-flaps cut to shape from any part of the body to supply deficiency elsewhere. This transference is most frequently required in such cases as in the face, or where important organs are left uncovered, or where deformities occur by contraction of cicatrices, or in the neighbourhood of joints. The two cases which I am about to exhibit to you consist in the formation of eyelids. One of these was performed only a week ago, and the other eight months ago.

The original rule laid down by Tagliacozzi, and which has ever since been considered as the primary law in such cases, and the *sine quâ non* to the success of the operation, is that the flap must retain its connexion with the adjacent living structure by a pedicle, which is to be severed only after complete union and cicatrisation of the raw surfaces. Many years ago, however, it occurred to me, while studying plastic operations in La Charité, in Paris, under Velpeau, that this rule is in many cases inapplicable. The pedicle has, in my opinion, been a source of great embarrassment to surgeons, and the constant employment of it has tended rather to retard than advance the progress of plastic surgery. In studying partially successful cases, I have noticed that those cases which run a critical course begin to exude a serous bloody discharge about the second or third day, and that this is followed by suppuration, just as if an effort were being made by the flap to get rid of the binding tissue previous to adhering.

M. Reverdin's system of skin-grafting, so valuable for healing up ulcers, has led me a step further in the same direction. In attempting to supply the loss of conjunctival substance, I have, in the first instance, filled up deficiencies by shifting portions of the conjunctiva from one spot to another, without keeping a pedicle, which I considered rather an obstacle than otherwise. I then carried the principle further, and supplied conjunctival deficiencies by transplanting portions of con-

(a) Read before the Glasgow Medico-Chirurgical Society, April 7, 1876.

junctiva from the rabbit to the human subject.(b) In applying this principle to the filling up of cutaneous deficiencies, I have come to the conclusion that, if we wish a skin-flap to adhere to a new surface by the first intention or by agglutination, we must be sure that it is completely cleared of all areolar tissue, and properly fixed in its new place.

The following cases will illustrate my procedure:—

Case 1.—*Formation of Lower Eyelid with Skin from the Forearm.*

G. T., miner, aged thirty-five, had his face and both eyelids burned by an explosion of gas four months ago, thereby producing eversion of both eyelids. The right eyelid was slightly everted, while the left lower eyelid was completely dragged downwards and inwards towards the nose—so much so that there was hardly a vestige of lower eyelid left, and the eyeball was thus exposed, thereby tending to inflame and ulcerate. To remedy this I proceeded in the following manner:—I vivified the upper and lower eyelids at the expense of their inner margin, keeping clear of the eyelashes. I then introduced four ligatures through the lower eyelid; these, along with the needles, I entrusted to my assistant, who, by means of them, used slight traction, so as to put the eyelid on the

Fig. 1.

Fig. 1 shows the state of the lower eyelid, with the ligatures through border of upper and lower eyelids, and also the skin deficiency to be supplied.

stretch. I then made a long horizontal incision into the skin two lines from the eyelashes, so as to permit the eyelid to be raised, but leaving the contracted skin all round; the skin was thus not wasted or cut away, but was dissected all round, and served as a frame into which the new flap was to be set or inserted. The hardened cicatricial subcutaneous tissue, however was cleared away, and a clean surface produced. I then passed the ligatures through the upper eyelid and tied them. In this way the whole extent of the gap was exposed, and it was plainly seen how much fresh skin was requisite to fill it up. I then measured the size of the flap wanted, which in this case was two inches long, and nearly one inch broad. I removed the flap required from the forearm, and turned up the deep surface, and with a knife shaved off the subcutaneous tissue, so as to produce a clean white surface. (A small microscopic section-knife is best suited for that purpose; two of these should be at hand, as the binding tissue very soon deprives the knife of its edge.) When using the knife, the flap must be supported underneath by the middle-finger in order to feel the depth of the section. After having it properly cleared, and the whole surface white, I applied it to the gap, and so set it that the old cicatricial skin covered its edges all round like a frame, thus answering the purpose of stitches. The surface was covered with fine gutta-percha tissue, which enabled me to look at it every day without disturbing it, and a lint compress was placed above. On the third day the dressing was removed, and lint dipped in warm water was applied for some minutes, after which it was gently dried. The surface presented a whitish appearance, but adhesion had already taken place, and the wound looked quite clean and dry, the temperature being slightly above that of the neighbouring part. The silk ligatures were removed on the fourth day. On the seventh day I separated the upper from the lower eyelid, and you will see that union has already taken place all round the edges of the wound, and that the outer segment of the flap has even become slightly assimilated in colour to the neighbouring skin of the face. In short, you see that the skin-flap of two inches by one not only sticks in its new bed like a piece of court-plaster, but has already been partly assimilated to it, and this only eight days after the operation.

But the case which I have next to show you is even more interesting, because it appears to me to have, in one respect, the force of a demonstration.

Case 2.—P. C., aged twenty-five, a quarrier, was admitted into the Glasgow Ophthalmic Institution with his face, eyes, and eyelids injured by an explosion of powder. The right upper eyelid, which was strongly everted, I partially succeeded in correcting by skin-grafting. The lower right eyelid being completely everted, its integument totally destroyed, and the skin of the face consisting of discoloured cicatrices, not by any means suitable for plastic operation, I formed a new lower eyelid with skin from the forearm.

The operation was done eight months ago, and the flap was of about the same size as in the previous case. I divided it into three portions: the first I applied without previous preparation, and the other two I prepared as stated above. I need hardly say that this difference of treatment was not intentional, for with the first portion I thought I had sufficiently cleared it in the removal, and so applied it without further examination; but with the second and third portions I examined the deep surface, and finding it insufficiently cleared of connective tissue, I pared it as described. The remarkable thing is that the two portions which were previously prepared healed by agglutination; whilst the first-mentioned portion, which was applied without previous preparation, looked rather livid the first day, the fourth day it began slightly to suppurate, and, after a hard struggle for life, a portion of it only remained, while the rest shrunk. This, however, did not materially compromise the result of the operation, and you will find the result highly satisfactory. The case is noteworthy, because it is in the same subject, and in the same piece of skin, and there is nothing else to account for the different processes in these three pieces; and further, because with my present light on the subject I should not be justified in repeating the experiment.

Fig. 2.

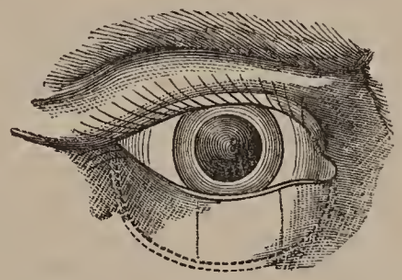

Fig. 2.—The vertical lines mark the division of the flap. The two outer and larger portions have been prepared before application; while the smaller, placed at the inner canthus, has been applied without previous preparation. The upper dotted line represents the elevated dissected edge, and the lower dotted line shows the point of insertion of the new skin.

Now, gentlemen, in examining this case you will find that the eyelid is good, the skin is smooth, though it has still a whitish appearance, forming a slight contrast with the rest of the face, which is discoloured by powder, but not so striking a contrast as it was at first after the operation.

In examining this last upper eyelid, which I corrected by means of skin-grafting, you will see that its surface is not so regular; it is, in fact, still a cicatricial substance, and compares unfavourably with the smooth, regular appearance of the lower eyelid, which was produced by this new method.

(b) The method which I have introduced has already been applied successfully in obstetric surgery. Mr. Swanzy, of Dublin, in submitting recently to the Surgical Society of Ireland a case of transplantation from the rabbit, stated that it had suggested itself to him that transplantation of mucous membrane might be useful in certain cases in obstetric surgery, and on inquiry he had ascertained that such a procedure had been adopted withsuccess.—(Beigel, "Die Krankheiten des Weibl. Geschlechtes," Stuttgart, 1875.)

A CASE OF CEREBRO-SPINAL (TETANOID) FEVER.

By HANCOCKE WATHEN, L.R.C.P.

Called on Sunday morning, September 21, 1873, to H. T., a young man, aged twenty-six years.

H. T. states that he was first attacked on the previous morning with severe pain in the back, commencing in the dorsal region, and extending upwards towards the back of the head. The pain was sharp and lancinating.

Present Condition.—Patient is found on his hands and knees

in bed. On lying down on his side he coils his legs up, and lies with his body bent forwards, the bent position apparently giving him greatest ease. No tenderness over abdomen or spine on pressure, but slight tenderness over right lumbar region. He states that the pain occasionally has a direction from right loin downwards towards groin. No retraction of testicle. Tongue moist; incessant vomiting; rejects everything. Pulse 108; temperature 100°; bowels confined. One-fourth of a grain of morphia administered hypodermically, and a diaphoretic mixture ordered, together with pulv. jalapæ co. ʒj. 9 p.m.: Had slept a little after the hypodermic injection, but the pain has returned. The injection repeated.

Monday, September 22.—Relieved immediately after the morphia was administered, and slept for three hours. Temperature 103°; pulse 120, full. Vomiting not so severe; only rejects occasionally. Bowels acted on. Venesection was practised to eight ounces, which appeared to give relief. Morphia injection repeated, to be followed in an hour by hydrat. chloral gr. xxv. if in much pain; pot. bromid. gr. xx. 4tis horis.

Tuesday, 23rd, noon.—Temperature 101·4°; pulse 120. In constant pain; at times writhing in bed. On uncovering the patient, the abdomen was found to be plentifully sprinkled with hæmic spots, varying in size from that of a split pea up to that of a threepenny-piece, most marked in each iliac region. The skin of the abdomen generally injected and dusky. Conjunctivæ injected and suffused; pupils acting to light. On attempting to give a hypodermic injection the needle was broken, the skin being so dense and contracted that it was nearly impossible to penetrate it. Having noticed the mitigation of the patient's sufferings by the bleeding on the previous day, a friend of the patient's had attempted to repeat it, but failed to puncture on account of this pachydermatous state. Pot. bromid. gr. xxx. 4tis horis, and hydrat. chloral gr. xxv. statim. 7 p.m.: Temperature 101·4°; pulse 120. Patient has had no rest since morning visit. Tongue white and coated; no sordes. Is in great pain, moans, and is at times attacked with paroxysms of pain. The pain is all referred to the back, and extends upwards towards the back of the head. No spasms. Purpuric eruption still more marked, now extending over arms, legs, and chest; no eruption to be detected on the back. Three-eighths of a grain of morphia injected, which in seven minutes gave relief, checking the paroxysm. Liquid blister painted over spine in dorsal and lumbar regions, and belladonna liniment to be rubbed in above. The bromide of potassium to be continued, and hydrate of chloral (thirty grains) to be taken if in pain. Beef-tea and one ounce of port every four hours.

Wednesday, 24th, 9 a.m.—Temperature 100°; pulse 130. Slept last night after the hypodermic injection until 4 a.m.; then took the chloral draught as the pain came on. The severity of the pain was lessened by the chloral, and is now not so severe as yesterday. Eyes much suffused and ecchymosed. Patient is evidently much weaker. Three-eighths of a grain of morphia was administered with great difficulty on account of the pachydermatous state of the skin.

Patient died at 3 p.m., when the purpuric spots had extended over the face. There was no delirium, and he was conscious to the last.

Remarks.—The diagnosis in this case was at first involved in some obscurity, the previous history of the patient materially helping to complicate it. Twelve days prior to his being taken ill he had left a mining village in Glamorganshire where small-pox was present—indeed, it was said to be in a house adjoining that occupied at the time by this patient; but, as far as he knew, he had not been in immediate contact with any small-pox patient. Taking all the symptoms into consideration at the time, the diagnosis at first appeared to rest between small-pox and some renal complication. The history afforded strong evidence of the possibility of its being small-pox; while, on the other hand, the pain in the back differed in character and severity from the spine-ache of the initial period of small-pox. The temperature also was hardly so high as one would anticipate even in this early period. The vomiting (although often present in small-pox), together with the direction of the pain at times from the right lumbar region towards groin, drew attention to the kidney. The urine was, however, found to be normal; no albumen. On the second visit a more careful review of the case led one to suspect cerebro-spinal mischief, which was verified on the Tuesday morning (fourth day of illness) by the appearance of petechial spots over the abdomen. It may be urged that this was a case of variola *sine eruptione*, and in support of this hypothesis the absence of spasms should be noted. But, as has been pointed out by Dr. Stretch Dowse, in sporadic cases of cerebro-spinal meningitis there is, as a rule, complete absence of spasms. The temperature is also important; at no period of the case was it so high as that obtained in variola, while it corresponded to that of cerebro-spinal meningitis. An equally important point is that there was no spread of the disease, although there were not wanting plenty of means for its propagation had it been small-pox, the patient having been visited by several friends, and amongst others by a married sister and her infant (who was not vaccinated). Had it been small-pox, in all human probability it would not have terminated with this case. The intense contraction of the epidermis, with the general suffusion of the surface, are worthy of note. The treatment appeared materially to lessen the severity of the symptoms, and, until I was aware of Dr. Dowse's observation as to the absence of spasms or convulsions in sporadic cases, I was inclined to give perhaps more credit than it deserved to the bromide of potassium in checking spasmodic action in this case.

Fishguard.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES OF CHOREA.

(*Concluded from page* 523.)

Case 16.—*General Chorea—Treated as an Out-patient for six weeks—Cured.*

(Under the care of Dr. CAYLEY.)

E. C., MALE, aged five years, was admitted as an out-patient, under the care of Dr. Cayley, on June 23, 1874.

Mother states that she first observed twitching movements of the arms about twelve months ago; she did not seek medical advice. During the last three months the choreic movements have increased in frequency, and the face also has become affected. Lately he has lost his appetite, and has been losing flesh. Is very restless at night, and frequently starts up in his sleep with a scream.

Ordered to take two minims of Fowler's solution and six grains of bromide of potassium three times a day. The patient gradually improved under this treatment, and at the end of six weeks was discharged, having lost all symptoms of chorea.

Case 17.—*General Chorea following Rheumatic Fever—Treated as an Out-Patient for six weeks—Cured.*

(Under the care of Dr. CAYLEY.)

E. R., female, aged eleven years, was admitted as an out-patient, under the care of Dr. Cayley, on June 30, 1874.

Patient is suffering from general chorea, but not of a severe character, which was first observed about a week ago. The mother states that the child was quite well up to three years ago, when she was an in-patient at Guy's Hospital for fourteen weeks, but she does not know from what disease she was suffering. The arms and legs were swollen, and she could not move in bed. This attack was probably rheumatic fever, an opinion which is strengthened by the fact that there is a loud mitral regurgitant murmur. After her discharge from the hospital she continued in fair health for twelve months, when she was taken ill with chorea, for which she was again admitted to Guy's Hospital, and remained an in-patient for four weeks. Since her discharge she has continued well until the present attack.

Patient was ordered a mixture containing two and a half minims of Fowler's solution and ten minims of tincture of perchloride of iron three times a day. At the end of a fortnight the dose of Fowler's solution was increased to five minims, which was continued for a further period of four weeks, at the end of which she was discharged quite well as regards the chorea.

Case 18.—*Severe General Chorea—Treated as an In-Patient for three weeks—Cured.*

(Under the care of Dr. CAYLEY.)

A. F., male, aged eleven years, was admitted as an in-patient, under the care of Dr. Cayley, on June 30, 1874.

The mother of the patient states that he had rheumatic fever about nine months ago, and has not been well since. Fourteen days ago she observed that he had occasional twitching movements of the arms. These have been increasing in frequency and severity ever since, and he is now unable to hold anything in his hands for any length of time. The muscles of the face and legs are also affected, but in a less degree. No cardiac disease.

Patient was kept in bed for the first few days, and placed on ordinary diet. The only medicine given was ten minims of solution of perchloride of iron three times a day. Improvement took place almost immediately, and the patient was discharged quite well at the end of three weeks.

Case 19.—Bilateral Chorea—Treated as an Out-patient for ten weeks—Cured.

(Under the care of Dr. BATHURST WOODMAN.)

H. W., male, aged six years, was admitted as an out-patient, under the care of Dr. Woodman, on July 13, 1874.

Patient had an attack of chorea in 1872, but has been quite well for more than eighteen months. Present attack has existed for three weeks. All the limbs are affected, but not badly. Ordered a mixture containing ten grains of bromide of potassium three times a day.

July 20.—Choreic movements more frequent since last attendance. To take a mixture containing five minims of Fowler's solution and seven grains of citrate of iron and ammonia three times a day. This mixture was continued for six weeks, during which time the patient gradually improved. The arsenic was then discontinued, and steel wine given for a further period of three weeks, when the patient ceased to attend the hospital. When last seen no choreic movements were perceptible.

Case 20.—Bilateral Chorea—Treated as an Out-patient for five weeks—Cured.

(Under the care of Dr. BATHURST WOODMAN.)

B. E., female, aged eleven years, was admitted as an out-patient, under the care of Dr. Cayley, on September 7, 1874.

Patient is the ninth child; all the others are healthy, and have always been free from any symptoms of chorea. Has had two previous attacks. The first is said to have been brought on by a fright. Present attack commenced about fourteen days ago. The right arm and leg are chiefly affected, although there are occasional twitchings of the left limbs. Has an inordinate appetite. No abnormal heart-sounds audible.

Ordered a mixture containing one grain of quinine and ten minims of tincture of perchloride of iron three times a day, but as no improvement took place at the end of a week, three minims of Fowler's solution was given in steel wine three times a day. This mixture was continued for four weeks, under which gradual improvement and ultimate recovery took place.

Remarks.—The above series of cases of chorea serves to illustrate how much more satisfactory it is to treat patients suffering from this disease in the wards of a hospital than as out-patients. When treated as out-patients, recovery always took place more slowly; whilst in some instances no improvement whatever took place until the patients were taken into the hospital. Thus, in Case 4, the patient was treated unsuccessfully for several weeks as an out-patient, but on being admitted to the wards recovery took place in three weeks. Cases 10 and 11 were also treated unsuccessfully as out-patients, and rapidly got well under treatment as in-patients. Case 7 was treated both as an out-patient and as an in-patient for two distinct attacks. Under the former conditions, recovery did not take place until after ten weeks' treatment; whilst, under the latter, four weeks sufficed to effect a cure. In the twenty cases recorded above, the average length of time the out-patients remained under treatment was eight weeks, whilst the average of the in-patients was only three weeks and three days. It should also be stated that in the latter cases the symptoms generally were more severe than in the former. Various reasons may be given why the treatment of chorea patients out of the hospital is so unsatisfactory. It may be that the medicines are not given regularly as ordered, perhaps not at all; the children probably are badly fed, and are not permitted to get a sufficient amount of rest. Another reason is, that children suffering from this disease are often annoyed by their companions, and the consequent excitement aggravates the symptoms. In the hospital the patients are well fed, are kept free from excitement, have ample rest, daily baths, and the medicines are regularly administered. As to medicinal treatment, Fowler's solution and steel were generally given, although apparently equal results were in some cases obtained by other remedies. It is probable that in a large number of cases medicines might be dispensed with altogether, provided attention were paid to the diet, rest, and hygienic measures.

[For the notes of the above series of cases we are indebted to Mr. George Brown, late House-Surgeon at the Hospital.]

KING'S COLLEGE HOSPITAL.

TUMOUR OF RIGHT SIDE OF FACE.

(Under the care of Mr. WOOD.)

[For notes of these cases we are indebted to Mr. Barrow.]

Richard B., aged ten, admitted February 4, 1875.

History.—A small swelling of the cheek was first noticed three or four years ago. He does not state accurately where it commenced. It has increased slowly since, growing in an upward and outward direction, but without causing him pain or much inconvenience. Six months ago he sought advice about it, and his medical attendant made a puncture into it, and a small quantity of blood escaped, but no other fluid. Pressure was also applied to it externally, but only with the effect of causing a greater extension of the growth internally and downwards.

Condition on Admission.—A tumour exists on the right side of the face, extending from the temporal fossa, where it forms a considerable projection, being limited by the anterior and upper limits of that fossa, under the zygomatic arch, which it pushes outwards so much as to cause a great prominence of this arch, and passes under the masseter muscle and ramus of lower jaw into the mouth. It causes a great bulging of the cheek, and can be seen at the angle of the mouth even when the teeth are shut. The outer corner of the eye is somewhat drawn down and the conjunctiva exposed, so great is the swelling. On looking into the mouth the tumour is found to be placed on the outer side of the upper alveolus, which it has displaced inwards for nearly a quarter of an inch, and a rough and hardened condition of the mucous membrane covering the tumour exists opposite a molar tooth in the lower jaw. The coronoid process of the lower jaw on this side cannot easily be felt. The articulation is not much interfered with, and the boy can masticate his food very well. The tumour has a soft fluctuating feel, and when pressed upon in the mouth is made more prominent in the temporal region. Its surface is smooth, but a little irregular. The skin is not at all adherent to it. No veins in the neighbourhood are enlarged, nor can any glandular enlargements be found. There is not the slightest sign of pulsation in it. It cannot be diminished by pressure. It is not tender nor painful. The boy is well nourished and healthy. He cannot give any cause for its commencement.

Progress.—Nothing was done to the tumour, and as it was found to be increasing, on Saturday, March 6, Mr. Wood performed an operation for its removal in the following manner:—Chloroform having been administered, an incision about two inches and a half long was made over it above the zygoma, and the tumour detached from its connexions in this situation, principally by means of the finger. The finger was also passed down under the zygomatic arch, and the connexions behind the temporal muscle were severed. Next, the lips being held open, an incision was made through the mucous membrane over the tumour between the cheek and the upper alveolus, and the same means were employed to separate it from its attachments. After a little manipulation the greater part of the tumour was withdrawn from the upper opening. Several other portions of it were afterwards removed by the fingers, and by passing pieces of sponge from one opening to the other. It was then sponged with a solution of chloride of zinc, and a drainage-tube of large size passed and tied in. Carbolic dressings were then applied.

Condition when Discharged.—Wound perfectly healed; no discharge escaping into mouth even. The deformity of the face very much less, but the malar arch still is a very prominent feature, and it is made more evident by a slight depression just above it in the temporal fossa.

TUBERCULAR ULCERATION OF NOSE.

(Under the care of Mr. JOHN WOOD.)

Charles L., aged twenty-eight, admitted on May 4, 1875.

History of Present Attack.—Six or eight months ago, he noticed that when he blew his nose a thick yellow discharge escaped; this appeared to come from close to the right external orifice, and continued until three months ago, at which time a pimple was observed at the junction of the right ala of the nose and the cheek. This became covered with a scab, increased in size, and all around the base became red. This condition has rapidly increased by the formation of other similar pimples. They have been accompanied by a little itching, but only very slight discharge, and no pain.

History of Individual.—He has lived a dissipated life, and drunk very freely; has had gonorrhœa several times, and a chancre, with unequivocal secondary symptoms of syphilis. Two years ago he was taken with an epileptic fit. At this time he had been drinking very hard, and could scarcely hold a limb still. The fits have recurred, but at considerable intervals, and have mostly been of the character of fainting fits, but in one or two he has been strongly convulsed. About a year and a half ago his sight first began to fail, and has slowly got worse since. He has never been confined to bed by illness.

History of Family.—Father died of paralysis, with heart disease. He had several fits before death. Mother alive. Otherwise unimportant.

Condition on Admission.—A dusky-looking red blush exists over right ala of nose, right cheek, and slightly over tip of nose to left ala. It is indurated and tuberculated, especially about right ala, the tubercles being covered by a greyish-yellow thick scab, upon the removal of which a tuberculated, ulcerated surface is exposed. The tip of the nose looks considerably swollen, and the bridge rather depressed and sunken. He does not complain of pain in it except when it is touched. He is a particularly pale, cachectic-looking man; speaks slowly and thickly, but nothing more than an injected palate and fauces can be seen on looking into mouth. His sight is extremely defective; he is not able to read at all. His memory is also much impaired. No further observable constitutional disturbance. ℞. Syrup. ferri iodidi, ol. morrhuæ, āā ʒiv., t.d.s. ℞. Potassii iodidi gr. v., ferri tartareti gr. xx., mist. bromidi ʒj., t.d.s. ℞. Lot. plumbi. ℞. Ung. hydrarg. rubr. To live well, but to have only two glasses of wine daily.

June 15.—Much progress is made in the healing of the ulcers; the nose is less swollen and red than it was. His general constitutional state remains about the same. Very great improvement in appearance, but a fetid discharge escapes from the nose still. General health better. Left the hospital.

POTT'S CURVATURE OF THE SPINE, WITH ILIAC ABSCESS (LEFT).

(Under the care of Mr. JOHN WOOD.)

Silas E., aged eighteen, seaman, admitted February 18, 1875.

Ten months ago he fell on his back across an iron bar. He was taken into the hospital, where he remained four months. He suffered a great deal of pain during this time, and on getting up he found great difficulty in rising from the recumbent or stooping position, and could not turn himself in bed with ease. Anything striking his back gave him pain. And he noticed a small swelling of the spine of his back, which has gradually increased. Two months ago a swelling appeared in the groin, which has gradually got larger, but without giving him any pain. For the last month he has been unable to put his left heel to the ground in walking. He is a tolerably strong-looking, well-nourished lad. He has a curvature of the spine (Pott's) at the tenth, eleventh, and twelfth vertebræ, at which seat he complains of pain, which is augmented when tapped or a hot sponge passed over it. There is an abscess in the groin, apparently of large dimensions, pointing above Poupart's ligament. He cannot quite put the leg down straight. He has been at sea for seven years, and has led rather an intemperate life. Had typhus fever seven years ago. He has a brother who has hip disease, which commenced after a fall upon the ice. ℞. Ol. morrhuæ, syr. ferri iodid.

February 24.—The iliac abscess was aspirated, and more than a quart of pus drawn off. ℞. Mist. ferri s. carb. ʒj., t.d.s.

25th.—Complained of the leg feeling stiffer than before the operation.

March 1.—A swelling again appeared in the groin.

3rd.—As the tumour was found to be increasing rapidly, a second aspiration was tried, and about half a pint of pus withdrawn.

8th.—Swelling appeared again in the groin.

9th.—Iodine paint applied all round from left groin to back. He complains of a great deal of pain in the back. Swelling increasing.

Repeated aspiration was tried, and he was discharged about a fortnight after the last performance of the operation, without any return of the abscess. He was requested to report himself, but up to the present time (August, 1875) nothing has been heard of him.

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Medical Times and Gazette.

SATURDAY, JUNE 3, 1876.

THE GENERAL MEDICAL COUNCIL.

We mentioned last week that the new Army Medical Warrant was one of the subjects which had been brought before the Medical Council, but that the matter had been decided to be *ultra vires*. All who take the trouble to read the discussion on it will allow that the grievances of the army medical officers and the defects of the new Warrant were very ably and clearly set forth by Dr. Stokes, who moved for a committee to take the Warrant into consideration; but all will also agree, we think, with Mr. Turner that though the discussion showed that the Council heartily desired to help the army medical officers, they had not the power to do so, as "the matter does not fall within their province." We may add also, that could the Council have felt that the matter was not *ultra vires*, yet the Warrant is, unhappily, an accomplished fact, while there were other subjects urgently calling for attention, and with regard to which the action of the Council might be expected to produce some immediate effect. Most especially was this the case in respect of Lord Carnarvon's Bill. It will be extremely difficult to alter that in any way after it has once become law, and now is eminently the time to attempt to amend it. We think, therefore, that, to that intent, the Council did right in devoting to its consideration any amount of time that seemed necessary. We deal with the subject separately in another article, and we are not

without hope that the influences brought to bear upon the Government will have the effect of making the Bill less mischievous, without taking away or at all diminishing its efficacy for restraint when restraint may seem desirable or really called for. The Bill stood for Committee in the House of Lords on Monday evening, the 29th ult.; but the Duke of Richmond stated that he had received several communications of an important character with reference to it, and had had interviews with several persons interested in it, but that "he had not as yet been able to come to anything like a conclusion on some of the suggestions made to him"; and he therefore postponed the Committee on the Bill till after Whitsuntide. This must be regarded as very satisfactorily proving that Government intends to fairly consider, or at least to take time for so considering and weighing, the representations that may be made to it regarding the Bill. The postponement is satisfactory, also, because otherwise the opinions of the General Medical Council on the Bill would have reached her Majesty's advisers rather late, as the Report of the Council was not finally settled and adopted till Tuesday, the 30th. Nearly the whole of the second, third, fourth, and fifth days of the session were devoted to the consideration of that Bill and to committee work, but a few other subjects did receive some attention. Dr. Storrar drew attention to the expenditure of the Council, especially with regard to printing. He instanced particularly the Minutes of the first day's sitting, which extended to 125 pages, and expressed very considerable doubt as to the expediency of printing several of the matters which appeared on the Minutes. His remarks did not apparently, however, meet with any response at the time; but the subject will be again before the Council, as the financial report especially draws attention to the very heavy increase in the cost of printing in 1875. The returns from the Army Medical Department were submitted to the Council; and these are noteworthy, as presenting a very remarkable improvement in the character of the candidates, already qualified, who presented themselves for commissions in August, 1875, when compared with the candidates of a few years back. There were twenty-one candidates, and not one of these failed in examination. This may be fairly taken as showing that the possession of a qualification to practise is a much surer proof of fitness to do so than was formerly the case. But the next table submitted to the Council gave the results of professional examinations for degrees, diplomas, and licences granted in 1875 by the bodies in Schedule (A) to the Medical Act; and this table is not satisfactory. The number of rejections was often very large. At the Royal College of Surgeons of England, for example, one-third of the candidates for the membership were rejected at both the first and the final examinations; at the Royal College of Physicians of London one-fifth of the candidates for the licence were rejected at the final examination; at some of the Scottish Boards, one-half of the candidates failed in the first, and one-third in the final examination; and at the Queen's University in Ireland the rejections varied in examinations from nearly one-half to rather more than one-third. Such results seem to point to either grave failure in professional education, or over-severity in examination, or to both; and the Council referred the table to a committee, for consideration "with reference to so large a number of rejections," and for report thereon.

On the third day of the session the President, in answer to questions formally put by Dr. Andrew Wood and Professor Turner, stated that the amended Scheme for a Conjoint Examining Board for England had been assented to by the University of Oxford and the University of Durham; that the Royal College of Physicians of London and the Apothecaries' Society had approved of it, and the Royal College of Surgeons had approved of it "if all the other bodies agree." The University of London had not yet sent any answer; and at Cambridge the syndicate appointed to consider the Scheme had not felt able to recommend the University to approve of it. The University of Oxford, the College of Physicians, and the College of Surgeons had made suggestions, which, however, the President said, "are not expected to raise any serious difficulties when the representatives meet again, if the Scheme should be generally agreed to." The matter will again come before the Council during the present session, as the President promised to obtain, if possible, the precise answers given by all the bodies concerned, and Sir William Gull has given notice of motion, urging the formation of conjoint schemes in the several divisions of the kingdom. No communication on the subject of conjoint schemes in Scotland and Ireland has been received since the last meeting of the Council.

A letter from Dr. Stewart Lockie on the subject of lunacy certificates in Scotland was taken into consideration. At present, certificates of lunacy granted in England are of no force in Scotland and Ireland; and similarly, lunacy certificates given in Scotland or Ireland are not available in England. The matter was brought before the Council in 1868, and an effort was made to obtain an alteration of the law, but nothing was effected, and the reason then given for the practice, which obtains to the present day, was that the Commissioners of Lunacy of England had no control over the Commissioners of Scotland, and *vice versâ*. Such a state of things is, as Dr. Andrew Wood observed, quite contrary to the spirit of the provisions of the Medical Act, one of the great objects of which was to equalise the practice between England, Scotland, and Ireland. The Council resolved "that the limitation of the validity of lunacy certificates to the division of the kingdom in which they are first given is still a pressing grievance"; and the President was requested to lay before the Home Secretary all the previous acts of the Council on the matter. On Wednesday, the 31st ult., the President informed the Council that he had seen Lord Shaftesbury, the Chairman of the Lunacy Commissioners in England, who, after carefully considering the subject, said that he did not think the question was now in the same position as before; that there would probably now be no objection to consider it in connexion with other subjects proper for a Bill having relation to the Lunacy Acts; that it should, after conference with the other Lunacy Commissioners, be so considered; and he hoped that it might be possible that an evil, the existence of which he fully felt, might be remedied next session, if a Lunacy Act could then be brought in. The Council may be congratulated on having initiated what will be a really valuable and useful piece of legislation.

On Saturday and Monday, the fourth and fifth days of session, the time of the Council was wholly devoted to the consideration of the Report on Lord Carnarvon's Bill, and the same matter was still before the Council during a part of the sitting on the sixth day; but when the Report, as amended, had been adopted, and ordered to "be brought up next day," the Council went into committee to consider "the Report of the Committee on Bills." This business occupied the Council for the remainder of the Tuesday's and a great part of the Wednesday's sittings, and even then several of the sections of the Report had been referred back to the Committee for reconsideration.

THE VIVISECTION BILL.

As we expected, the Bill introduced by Lord Carnarvon for the Prevention of Experiments on Living Animals has promptly roused the indignation of the medical profession. It has been the subject of long and careful discussion in the Medical Council, and a most influential deputation from the British Medical Association has waited on Mr. Cross on the subject. In the report of the latter body (Parliamentary

Bills Committee), exception is justly taken to what we pointed out last week as a direct insult to a body of inoffensive gentlemen, in the short title of the Bill. Instead of "Cruelty to Animals Act, 1876," they suggest that it might be called "Experiments on Animals Act"—a title altogether innocent in character, and more nearly defining the scope of the measure. The Medical Council have not considered this point, but, as bearing on the influence such a title would have on the popular mind, we cannot help thinking it of importance.

The Government pretend that this measure is founded on the Report of the Royal Commission of last year, but in several respects the proposed Act goes decidedly beyond this Report. Nowhere is this more manifest than in the clause limiting the experiments allowable to such as are likely directly to be useful in saving and prolonging life or alleviating human suffering. The Report of the Commission is most emphatic on this point, and makes it clear as noonday that this limitation is unwise and impolitic; yet here we find it in the Government measure.

Yea, the whole question of legislation at all was recommended by the Commission in a tone of compromise. The Report allowed that cruelty was a thing practically unknown in our British schools, whatever it might be abroad. The terrible stories told of cruelty abroad have nothing to do with the practice of this country; and legislation should be founded on the necessities of our own land, and not on those of any other. We were willing to receive a moderate measure, but this is something very different. The discussion on this question in the General Medical Council has been of extreme value. It has given men engaged in the daily work of teaching an opportunity of ventilating, of publicly discussing, and of protesting against statements industriously thrown broadcast before the public on very indifferent authority. Moreover, it has afforded an opportunity for explaining the very unfortunate evidence given by Dr. Klein before the Commission. The charges brought against this gentleman have since been investigated by the Senate of the University of London, under the presidency of no less distinguished a personage than the Master of the Rolls, and pronounced groundless. His evidence, apparently so damaging, when explained by Mr. Simon really meant nothing; and, beyond a vague story by Dr. Anthony, we remember nothing else in the Report which could in the slightest degree bear out any charge of cruelty. We greatly rejoice at this, for in this way a great stumbling-block has been removed.

A matter of some little importance, from a legal point of view, has been introduced before the Council—that is, the definition of the word "animal." Seeing that among scientific men no definition can be given which will hold water, the Government draftsman may have some difficulty in finding one; and it need not be said that in the working of the law this is all in all. We sincerely trust that the speeches made in the Medical Council on that part of the Bill against "Cruelty to Animals" which relates to "what is an animal" may be brought under the notice of Government. They are certainly pungent, and, as we believe, thoroughly correct. The speeches of Sir William Gull, Mr. Simon, Dr. Quain, Sir Dominic Corrigan, and Mr. Lister will well repay perusal.

So again, when dealing with curare as an anæsthetic, the use of which is forbidden, the Government Bill lands us in a sad slough. The mere fact that a substance is known by many different names, as curare, curara, urari, woorara, woorali, woorari, would teach us that it is not likely to be always of the same composition and character, as, in point of fact, it is not. That commonly used is a vegetable extract of no very certain composition, but its active principle is not forbidden, neither is the use of any similar substance. Such a clause had better be dropped. The Council recommend that "neither woorari nor any other substance shall be deemed to be an anæsthetic for the purposes of this Act until it has been proved to be so." Who is to be the judge of this? Another grievance which would be exceedingly grievous is that, according to the Bill as now drafted, those who can sign requests for certificates must be either professors in a university or teachers in a "chartered" medical school. Now, in England there are only three such—King's College and University College in London, and Owens College, Manchester. All the other English schools would be placed in a position of inferiority in this way: no lecturer at Guy's, St. Bartholomew's, or any other of our large schools could sign such certificates. This, of course, is easily obviated by making all lecturers in schools recognised by the Medical Council eligible as signataries. Certain additions are also proposed to the list of higher authorities who may sign such certificates. Should we be compelled to accept the obnoxious law—for might will in this case be right—the question arises, how best to reduce the troublesomeness of its provisions to a minimum? The penalties are too heavy; the limitation of the kind of experiments is absurd; many of the provisions are, we believe, unworkable. But whatever shape the measure take, we are sure to have two factors—registration and certificates. As at present drafted, the clauses relating to these are likely to prove irksome in the extreme. One of the clauses forbids all experiments to be made save in a registered place. Such a regulation would, we fear, interfere with Mr. Darwin's researches into the workings of insectivorous plants on the Surrey Hills. As has been pointed out, the limitation ought only to apply to experiments performed for the sake of instruction, which certainly should not be restricted, or rather forbidden, in the way they are in the present Bill. So, too, as regards certificates: the principle, to be worth anything, should be much more widely extended; and yet, if it is, the Bill may become totally void.

One of the most absurd clauses is that relating to cats and dogs. Here, again, the Bill goes distinctly beyond the Report of the Royal Commission, for the recommendation to exclude these was signed by Mr. Hutton, whose philozoism (in contradistinction to philanthropy) has been so conspicuous throughout. The exclusion of cats and dogs from the list of animals is greatly to be regretted in many ways. On what animals save dogs could Professor Rutherford have carried out his careful and valuable researches on the secretion of bile? and who that reads of these can help seeing that, far from any unnecessary cruelty being used, such would have inevitably ruined the results obtained? In no single instance are the signs of Government having yielded to popular clamour more apparent than in this clause of a vexatious Bill. It is not good for mankind, nor yet for the animals themselves.

Finally, we most heartily agree with the rider proposed by Mr. Simon to the Report of the General Medical Council, and agreed to by that body:—"In conclusion, the General Medical Council would submit to her Majesty's Government that, in suggesting the above amendments in Lord Carnarvon's Bill the Council have no desire to provide legal immunity for persons (if such there are in this country) who, under pretext of scientific purpose, would be willing to act cruelly towards any brute animal. But the Council are satisfied, and they refer to the Report of the Royal Commission in support of this assurance, that in this country there does not exist, nor in the present state of public and professional opinion is likely to exist, any appreciable class of such persons. And the Council would deeply regret that her Majesty's Government, in order to provide safeguards against a greatly exaggerated danger, should proceed as if a willingness for cruel action were general among persons engaged in studying and teaching the physiological sciences, and should submit those studies to such minuteness and stringency of regulation as if they were of criminal intention."

It is comforting to know from the Duke of Richmond and Gordon that the Government are taking time to consider their next step.

THE NEWEST ONSLAUGHT OF THE MEDICAL WOMEN.

A DEPUTATION from the London School of Medicine for Women has, we believe, recently waited on the House Committee of the London Hospital, delicately inviting them to set aside the new wing of that Hospital for the special use and benefit of the ladies as a school for teaching them clinical medicine and surgery. In return they propose to give their valuable services as clerks and dressers, of which (say they) the want at the London Hospital is very great, and the pecuniary interests of their friends—apparently of much the same value. We hardly know what the House Committee will say, but to us the answer is clear: either the House Committee must set aside this wing for their special use, or they must have that which has proved so abhorrent to the Edinburgh folk—mixed ward attendance, to which mixed classes are as grasshoppers' feasts. Now, if we remember aright, the students' tickets run that they are to be admitted for a time to the practice of the Hospital without any limitation whatever. They would, of course, be governed by the general rules of the Hospital, but none of these, if we are rightly informed, in any London hospital contemplates the presence of female students as a bar to admission to the wards. As for the mixed clinical class, that is simply out of the question. No class of London students we have ever seen or heard of would stand it for a moment.

But, putting that for one moment aside, though we think the objection unanswerable,—can it, or could it, be wise to introduce such an apple of discord into an institution so valuable as is the London Hospital? Wherever these ladies have gone, discord has arisen. Should they bring a few new supporters to the London Hospital, they will as certainly alienate more. The City, which is the chief supporter of the great Eastern charity, is not much given to the "isms," and would not, perhaps, properly appreciate the devotion of those ladies who seek so industriously for a rest to the soles of their feet where man has already trod, or is treading.

The ladies desired to institute a school of their own, which they did in Henrietta-street, Regent-square. That is what we have ever invited them to do, and we have never said a word against them for doing so. Now, as we have heard, the life of this institution is hanging by a thread, and everything depends on securing hospital teaching—hence the raid on the London Hospital. Should they be successful, and we can hardly see how, the next thing would be to demand instruction in the medical school, for, as the Hospital is part and parcel—and, according to the English system, by far the most important part and parcel—of our system of education, the one almost implies the other. In Edinburgh they were admitted to certain lectures, but entirely failed to obtain admission to the wards of the Royal Infirmary.

THE WEEK.

TOPICS OF THE DAY.

IT is reported that some fifty or sixty members of Parliament have sent a memorial to the Prime Minister, calling upon him to bring forward at once the promised legislation for preventing the pollution of rivers. The memorialists are principally those who represent constituencies which are injuriously affected by the present lax state of the law, and it is a matter of some surprise that the subject has not been taken up in the House before. Last year the question of pollution of rivers occupied a place in the Queen's Speech, and the Government was warmly congratulated by the mover and seconder of the Address on having taken up a subject of such urgent importance. A Bill was introduced, but the time at the disposal of the Ministers did not admit of its being submitted to Parliament; it was accordingly put back to the present session, and although some three or four months back Mr. Disraeli asserted that a measure had been prepared, nothing has yet been heard of it. It is sincerely to be hoped that the pressure now put upon the Government will compel them to stir in the matter, so that this important piece of legislation may not be again deferred until it is too late to enter upon it in the present session.

The difficulties with which medical officers have to contend in dealing with parish authorities and relieving officers were painfully illustrated by the proceedings at an inquest which was held last week before Mr. Bedford, at Westminster, on the body of a woman aged fifty-three. Mr. George Fenton, of 28, Great Smith-street, parish surgeon of St. George's, Hanover-square, said he was called to see the deceased on February 22 last, by the relieving officer; she was then suffering from acute bronchitis and dropsy. He tried to persuade her to go to the Infirmary at Kensington, but without effect. He prescribed for her, and she got better. Eventually he received a second order to attend her, and found her suffering from the former complaints, but to a larger extent. Finding that she was too poor to obtain proper nourishment, Mr. Fenton gave her daughter a certificate to procure some mutton; this was refused by the relieving officer. The next day deceased was worse, and he gave an order on the relieving officer for beef-tea, and a little milk and sugar daily. This order, although marked "urgent," was also disregarded, and Mr. Fenton gave it as his opinion that if the deceased had had the nourishment ordered by him her sufferings would have been relieved and her life prolonged. Mr. Robert James Lee, of Maddox-street, who made the post-mortem examination, corroborated Mr. Fenton's statements. The jury, after a short consultation, returned a verdict of "Death from chronic bronchitis, accelerated by want of nourishment." They added that when doctors' certificates were given in urgent cases they should be at once attended to; that relief should be given when ordered by the doctor, instead of applicants being kept waiting for three or four days; that the relieving officer gave his evidence in a very unsatisfactory manner; and that great credit was due to Mr. Fenton for his humanity and courage in bringing the case before the public. There is, it is said, another side to the question. On behalf of the Poor-law officials it is stated that there could have been no urgent want, as the husband never earned less than 20s. per week, and two sons contributed between them 17s. per week towards the common fund.

Sayes Court, Deptford, the historically interesting residence of the Evelyns, was the scene of a private amateur dramatic entertainment last week, patronised by the Duke of Connaught, for the benefit of a free medical scholarship, designed to help the necessitous orphans of medical men. The gathering was in all respects a great success.

The official inquiries into the circumstances attending the death of the late Mr. Bravo were brought to a close at the end of last week. Over thirty witnesses were examined, and many matters requiring explanation, which had not before been surmised, have been investigated, and, as far as possible, cleared up. A very rigid inquiry would seem to have been instituted in reference to the conduct of the deceased from the time he was taken ill till he became unconscious in death. Considerable significance is attached to the fact that throughout the whole of the time he was dying he was very reticent. He himself exhibited no signs, as far as can be ascertained, of any surprise at his condition, nor did he ask a single question as to how he got poisoned. His whole conduct

is said, by some of those about him at the time, to have been more like that of a man who knew his own secret, and was determined not to divulge it, for, so far as inquiries have gone, he volunteered no statements to assist in unravelling the terrible mystery. The evidence taken, it is true, shows that he had been sick one morning previously in going up to London, but that is the only other occasion that can be proved. Taking, therefore, the whole circumstances of the inquiry into consideration, it is not expected that any person will be charged upon suspicion of causing his death. All this is, however, at the present time only conjecture, as no official account of the inquiry has been allowed to transpire.

At a meeting of the Liverpool Workhouse Committee, held last week, a letter from Dr. Alexander, Visiting Surgeon of the Workhouse, was read in reference to the use of alcohol as a medicine. The communication was suggested by a circular describing the experiment at Wrexham, where the medical officer had discontinued the use of alcoholic stimulants in the workhouse hospital. Dr. Alexander described this experiment as cruel and useless in its conception, imperfect in its execution, and unwarranted by the results. We shall probably return to this question in an early number; at present pressure on our columns prevents our dealing with it so fully as its importance demands.

The Annual Court of the Governors of the Brompton Hospital for Consumption was held last week in the Board-room of the Hospital. The Report for the year stated that the Hospital had been the means of effecting a greater amount of good than in any former year since its establishment thirty-five years ago, 1381 persons having enjoyed the benefit of its treatment, as compared with 1330 in 1874. This result was due to the further extension of the "South Wing" by the addition of a fifth house mentioned in the last report. There had also been an increase in the number of out-patients, 12,807 new cases having been registered in 1875, against 12,526 in 1874. As regards the receipts of the charity, the annual subscriptions exhibited a satisfactory increase. A grant of £762 9s. 2d. had been received from the Metropolitan Hospital Sunday Fund—a larger sum than that awarded last year. These accessions to the funds had been more than counterbalanced by the falling-off in donations and legacies, on which the Hospital depends for a very considerable portion of the year's expenses, as well as to meet the fast-growing demands on the resources of the charity. The total income from all sources amounted to £18,329 14s. 11d.; and the total expenditure to £18,250 12s. 11d. The Report was adopted as presented.

According to advices received up to the 24th ult. by the Sanitary Board from Mesopotamia, the plague has spread to several localities between the Tigris and Euphrates to the south of Hillah. In the official bulletin, however, these localities are not specified by name. From March 30 to April 6 inclusive, the plague had been slightly more fatal at Bagdad than during the previous week, there having been 409 deaths, or an average of about fifty-nine per day. At Hillah, on the other hand, the epidemic is diminishing, there having been only forty-eight fatal cases, or seven per day, during the week. From April 27 to May 2 there were eighteen deaths from plague at Nedjef; at Imam-Mousa there were eight from April 20 to May 3; and at Kerbela two deaths from this cause had been registered.

Coroners, as a rule, would appear to entertain peculiar theories of their own on various subjects, and last week Dr. Hardwicke took upon himself to lecture the profession. An inquiry was held touching the death of a blacksmith, aged thirty-seven, who died at Drummond-crescent, Euston-square. Deceased had been a great sufferer from bronchitis, and had been twice in University College Hospital to be treated for that disease. He left the Hospital on Sunday, the 21st ult., being very much better, and returned home. On the following Wednesday morning his wife went out at ten o'clock, and on her return two hours afterwards she found her husband lying dead on the floor. Mr. Burton, surgeon, from University College Hospital, deposed to his previous knowledge of deceased, but on being called in after death the external examination he made did not enable him to say that the cause of death was bronchitis; he did not think it was. He had no order to make a post-mortem, and he was quite unable from appearances to state the cause of death. The Coroner expressed an opinion that the death was from natural causes, and observed that if the jury concurred in that view they need not trouble themselves much about the particular disease that had caused death. Medical men, he further volunteered, were riding a hobby in trying to make out that there must be post-mortem examination in a number of cases which by the exercise of common sense ought to be settled without. The jury, however, declined to adopt Dr. Hardwicke's views, and decided that, in the absence of evidence from Mr. Burton as to the cause of death, they could not return a verdict. At this point the widow of deceased made a statement to the effect that on the morning of his death deceased drank a glass of what she thought was medicine, but he never was well after. The jury then urged an adjournment of the inquiry for a post-mortem examination and an analysis of the contents of the bottle. The Coroner was accordingly compelled to adjourn the inquest.

An important judgment under the Food and Drugs Act was given this week by the Birmingham Stipendiary. Mr. Richard Hughes, a druggist and drysalter, was summoned at the instance of the Sanitary Authority for having sold two ounces of milk of sulphur, which, on analysis by Dr. Hill, the Borough Analyst, was found to contain only 33 per cent. of sulphur, and 67 per cent. of sulphate of lime. For the prosecution it was urged that the sulphate of lime is injurious to health, and that, whether injurious or not, its presence in the milk of sulphur is an adulteration, and a legal fraud upon the purchaser. For the defence, it was contended that milk of sulphur was generally understood in the trade to mean sulphur prepared according to an old formula with sulphuric acid, which produced the sulphate of lime, and that it was preferred to pure sulphur precipitate because the latter will not mix well with water. The Stipendiary, in giving judgment, said the evidence failed to satisfy him of the alleged distinction between milk of sulphur and precipitate of sulphur, inasmuch as out of thirteen samples of sulphur purchased on the same day, only three were adulterated with lime. If people preferred the impure article on account of its convenience for mixing, they might have it, but under its true name,—a mixture of sulphur and sulphate of lime; when they asked for milk of sulphur it ought to be supplied pure. As the object of the prosecution was not to punish the offender, but to vindicate the law, only a nominal fine was imposed, and on the application of the defendant a case for a higher court was granted.

An outbreak of scarlet fever is reported to have taken place amongst the troops in garrison at Portsmouth, and we now hear that fever has broken out on board the training-ship *St. Vincent*, in Portsmouth Harbour. Two deaths have already occurred. The vessel accommodates between 600 and 700 boys, 300 of whom have been removed to the hulk *Hannibal*, now in the harbour. The *Bellerophon* hulk, it is stated, is ordered to prepare for the reception of 300 more, but it is reported that the *St. Vincent* will be taken to the Motherbank.

The Keighley Board of Guardians have been informed by the Local Government Board that unless, within one week,

proper directions be given to the vaccination officer, the Attorney-General will be instructed to apply to the Queen's Bench Division for a rule *nisi* for an attachment for contempt against the members who recently voted for a resolution rescinding all portions of resolutions which have been, or can be, construed into a general order to prosecute persons for non-vaccination of their children.

We understand that the negotiations which were recently opened by the Council of University College with the staff of the Middlesex Hospital, with the object of effecting a union between the medical schools connected with these two institutions, are not at all likely to be successful.

TEST-TUBES AND STOMACHS.

A BAND of lady teetotal enthusiasts, headed by Lady Jane Ellice, have been making speeches against the use of alcoholic liquors, and have called for the aid of some eminent members of our profession to help them with "scientific" arguments. One question proposed to these referees related to the useful or useless properties of alcoholic liquids as aids to digestion. And they received an answer declaring that "alcohol" was no aid to digestion; and that "experiments on the artificial digestion of food, in which the natural process is very closely imitated, show that the presence of alcohol in the solvents employed interferes with and weakens the efficacy of the solvents." The common experience of civilised mankind, showing that a small dose of wine or brandy does help a labouring stomach, is set aside, because artificial digestion in a bottle is interfered with by the presence of alcohol! We would respectfully ask these learned referees whether the glass-bottle in which digestion is checked by brandy has a nervous system behind it? We have lately seen a family party quietly enjoying their dinner, when in comes one with a black-edged letter in his hand, conveying a terrible tale of bereavement. Knives and forks are laid down; there is no more thought of dinner then. Let us ask, Would the bottle close its throat if it heard bad news? Is there anything checked in the salivary or gastric secretions of a test-tube? We know that appetite is excited by society and example: would a dozen bottles digest more, and more quickly and merrily, than one? We know that digestion in the living man is subject to the influence of the nervous system from first to last, and that, on this account, it is not to be measured by any chemical experiment in test-tubes. Wine will tempt the weary and grief-stricken sufferer to eat, will overcome the repugnance to swallow, will set free the salivary secretion, will help the labouring stomach, and will at onee supply that force which mere food would require a long time to do.

> "Read o'er this;
> And, after, this; and then to breakfast with
> What appetite you have."
> *King Henry VIII.*, Act iii. Scene 2.

The scientific referees must have strangely forgotten their Shakespeare when they compared the functions of the living stomach with the operation of hydrochloric acid and pepsine in a bottle. We would urge those who are concerned in the work of lessening intemperance to use no arguments that violate truth and sobriety. If alcohol had more or less than the good or evil qualities ascribed to it, the wasteful and intemperate use of it would be equally a sin. Teetotalers must come into court with clean hands. Let them see the frightful picture presented in the Report of the Convocation of Canterbury, of the social and economic evils that predispose to intemperance, and believe that whilst men are ignorant, vicious, and comfortless in their homes it is in vain to check intemperance by legislation. We will add, on their side, that no brewer or person interested in the sale of liquor ought to be a magistrate, or permitted to have a vote in giving licences to publicans and liquor-dealers.

THE METROPOLITAN ASYLUM DISTRICT.

THE report of the Committee of Management of the Metropolitan Fever and Small-pox Hospitals at Homerton upon the work of the Hospitals from their establishment in 1868 to December 31 last, has recently been made public. The Committee propose, in future, to accompany the Annual Reports of the Medical Superintendents with a brief summary of the medical work, and with a review of the principal features in the general administration of the Hospitals; and in order that such reports may be complete, it has been considered advisable upon the present occasion to sketch the history of the Hospitals from their establishment to the termination of the past year, and to add to the Reports of the Medical Superintendents for the year 1875 their previous annual statements, which, together with other information, the Committee have reason to believe will be found valuable, interesting, and useful for reference. The history of the Hospitals is, therefore, very carefully given, supplemented by the statistics which have been from time to time prepared by the medical officers. The Committee have also very considerately appended to the Report an expression of satisfaction with the manner in which the medical staff have performed their duties, special reference being made to the heavy additional labours which have devolved on Dr. Collie, the Medical Superintendent, consequent upon the large amount of sickness which has prevailed among the staff.

STATISTICS OF DISEASE.

THE Manchester and Salford Sanitary Association has sent a petition to the House of Commons, urging the great importance of passing a measure by which medical officers of health should obtain regular and frequent registration of all cases of disease coming under treatment at all public institutions in their respective districts. The reasons advanced in support of the proposed measure are:—That such returns would give plain and timely warning of the rise and progress of the various epidemics of fevers, diphtheria, cholera, etc., so that preventive measures might be applied at their outset, when alone they are likely to be effective. That they would afford a means of estimating the burden of sickness borne by a community in its full weight of money loss, in the suffering which it entails, as well as in the mortality arising from it. That they would guide the sanitary authorities as to the need of dealing with non-fatal cases arising from local causes. That they would show the amount of disease arising from social vices and evil habits, *e.g.*, scrofula and syphilis. That they would afford a test of the fitness of the various institutions for the reception of sick and poor. That they would constitute a valuable series of medical statistics, from which conclusions might be drawn respecting the causes of disease, the laws of epidemics, the relation of disease to atmospheric changes and to seasons of plenty or scarcity, and many other questions of medical science. That they would probably show the influence of trade and manufactures, and of any other circumstanees peculiar to a district; would afford a means of comparing the relative healthiness of different districts, and would thus serve to direct sanitary and benevolent exertions.

DEATH FROM THE ADMINISTRATION OF ETHER.

A CASE is reported in the *Chicago Medical Journal and Examiner* for May, in which death followed the administration of ether at the Illinois Charitable Eye and Ear Infirmary. The patient was a man seventy-four years of age, who was being operated on for cataract. He inhaled the ether quietly until about half a pound had been consumed, when violent coughing commenced, which was followed by extreme lividity of the face and cessation of breathing. Dr. E. L. Holmes, who was about to operate, directed the administration of ether to be stopped, and the foot of the bed to be raised as high as

possible. Meantime he raised the tongue with one hand, and with the other made forcible pressure every few seconds on the side of the chest. Respiration was at once re-established, also the action of the heart, and the lividity in a great measure disappeared. Without giving more ether Dr. Holmes rapidly commenced and completed the section and removed the lens. He then adjusted a bandage over the eyes, when he observed that the patient did not breathe, the face was more livid, and the pulse very weak. Death took place almost immediately, notwithstanding artificial respiration and attempted inflation of the lungs.

A MEMORIAL TO THE LATE MR. ROBERT CHEERE.

At a meeting held on Tuesday, at King's College Hospital, for the purpose of considering the best way of perpetuating the memory of the late Mr. Robert Cheere, who, as treasurer, had rendered eminent services to the institution, it was resolved —"That this meeting of the colleagues and friends of the late Mr. Robert Cheere, Treasurer of this Hospital, thinks it eminently desirable that some memorial should be raised to commemorate his long and valuable services to the College and Hospital, and they are of opinion that the most suitable form of such memorial would be a convalescent home or fund, to be attached to the Hospital, and to be called 'The Robert Cheere Convalescent Home or Fund.'" A committee was formed for raising the necessary funds to carry out the scheme, and Dr. Guy was appointed treasurer. Subscriptions were promised to the amount of £1365, which included £500 from Dr. Guy, £100 from Lord Powis (the President), and £100 each from Messrs. Hoare and Mr. Robert Pryor.

THE POPLAR HOSPITAL FOR ACCIDENTS.

Among the smaller hospitals of the metropolis there is none, perhaps, which effects a larger amount of public good, or is more deserving of public support, than the Hospital for Accidents at Poplar. Situated near the docks and the river, and in the midst of a dense manufacturing population, the demands upon its resources are very great. At the annual dinner of the charity, last week, it was stated that the expenditure exceeds the income by £300 per annum. It is painful to find that a most useful East-end charity is crippled for want of funds; whilst in the West-end, useless—and we might almost say mischievous—so-called "special" hospitals are able to obtain large sums in excess of their requirements from wealthy members of the aristocracy, who cannot, we are sure, have any idea of the value of the institutions they are so active in supporting.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The President of the Local Government Board has announced that he will receive a deputation from the Council of the Poor-Law Medical Officers' Association on Monday, June 12, at 3 p.m. Members of the Association and of the Poor-Law Medical Service are requested to communicate with such M.P.'s as they may happen to know, and urge them to attend and support the object of the Council. The Council also earnestly request that the particulars of any case where superannuation has been refused to any aged medical officer should be forwarded without delay either to Dr. Rogers, 33, Dean-street, Soho, or to John Wickham Barnes, Esq., 126, Gower-street, Bedford-square.

HEALTH OF SIR WILLIAM FERGUSSON.

Sir William Fergusson, during the last week, has had good nights, and although, with a diminution of the renal secretion, there has been rather an increase of the dropsical swelling, we are happy to learn that he has been comparatively free from distressing symptoms. He occasionally leaves his bed and sits up for awhile, but he is unable to leave his room. Sir George Burrows and Dr. George Johnson are in daily attendance. The great interest and sympathy excited by the report of Sir William's illness are shown by the very numerous inquiries which are daily made in George-street by all ranks and classes.

FEVER-DENS IN EAST LONDON.

It was stated, at a recent meeting of the Metropolitan Asylums Board, that, out of ninety cases of fever which had been sent to the fever hospitals of the Board from the Whitechapel district during the half-year ending Lady-day last, sixty were from that portion of the district which forms the area to which it is proposed to apply the provisions of the Artisans' Dwellings Act. This shows that no time ought to be lost in removing the fever-dens which at present exist on the condemned area.

THE VACANCY IN THE COUNCIL OF THE COLLEGE OF SURGEONS.

About 140 Provincial Fellows of the Royal College of Surgeons have signed a requisition to Mr. C. G. Wheelhouse, Senior Surgeon to the Leeds Royal Infirmary, asking him to allow himself to be nominated for the seat on the College Council, which is now vacant through the death of Mr. Southam. Mr. Wheelhouse has consented to become a candidate for the vacant seat, and we have no doubt that he will receive the almost unanimous support of the provincial Fellows.

PARLIAMENTARY.—POLLUTION OF RIVERS—PUBLIC HEALTH—VIVISECTION—PUBLIC HEALTH (IRELAND).

In the House of Commons, on Friday, May 26,

Mr. Sclater-Booth, in reply to Colonel Learmonth, said that if he had no opportunity before the Whitsuntide holidays of introducing a Bill to prevent the Pollution of Rivers, he should bring it in the first day afterwards.

The Public Health Provisional Order Bill for Wemyss, Scotland, was read a second time.

In the House of Lords, on Monday, May 29,

The Duke of Richmond and Gordon, replying to Viscount Cardwell, said that he could not proceed with the Cruelty to Animals Bill that evening, as he had recently received some very important communications from persons interested in the subject, and he had not yet decided what measures to adopt with reference to the Bill. He thought the best course would be to postpone the Committee until after Whitsuntide; and in the meantime the Government would have an opportunity of considering the bearing of all those representations.

In the House of Commons, on Tuesday, May 30,

On the motion of Sir M. Hicks-Beach, leave was given to bring in a Bill for consolidating and amending the Acts relating to Public Health in Ireland.

Académie de Médecine.—Prof. Le Fort was at the last meeting of the Academy elected a member of the section of Surgical Pathology by the votes of forty-one of the seventy members who were present.

New York Hospitals.—A correspondent of the *Boston Med. and Surg. Jour.* (April 27) furnishes a tabular view of the hospitals of the "empire city." From this it seems that there is accommodation for above 5700 patients, while other institutions not classed as hospitals have at least 500 beds—making a total of 6000 beds. The expense of conducting these institutions cannot be far from 900,000 dollars. The number of persons who received hospital relief in 1875 may be estimated at 35,000 at least. There were also treated at the different dispensaries 184,790 patients at an expense of not less than 60,000 dollars. The three eye and ear infirmaries treated besides the above 17,784 patients, at an expense of about 53,000 dollars—making the number of persons treated in hospitals, dispensaries, and infirmaries during 1875 not less than 238,000. There is no doubt but that many of these were able to pay something for medical services, and, in fact, many hospital patients do pay from six to seven dollars per week; but these make up the smallest class. It is to the ear and eye infirmaries that those who are abundantly able to pay go, and are treated gratuitously, more than at any other class of charitable institution.

REVIEWS.

Landmarks, Medical and Surgical. By Luther Holden, F.R.C.S., Member of Council and of Court of Examiners, Senior Surgeon to St. Bartholomew's and the Foundling Hospitals. Pp. 74. London: J. and A. Churchill, New Burlington-street, 1876.

We are glad to welcome this contribution to practical anatomy in its present shapely and convenient form. We have long been familiar with its subject-matter as described by the author, and have on many occasions sent men preparing for their final examination at the College of Surgeons to consult the original papers in the second and sixth volumes of the *St. Bartholomew's Hospital Reports*. It was very undesirable that information which is so requisite for students to have at their fingers' ends at examinations, so useful to the practising physician and surgeon, and which is not to be found elsewhere in works on anatomy, should remain scattered in *Reports* which have no very wide-spread circulation amongst general medical readers. Mr. Holden has conferred a great benefit upon both teachers and students by publishing the little work which it is now our pleasure to notice.

We say "to notice" because we cannot appropriately say "to review." The book allows of little if any reviewing, in the sense of critical commentary. It deals with facts undeniable, and plain to anyone who will take the trouble to observe them; and these facts are described in language which is simple and perspicuous, and which has the glib and easy flow well known to students of "Holden's Human Osteology."

The few passages which are open to criticism have reference to the surface position of some of the viscera, especially of the heart and its valves, and of the large vessels of the thorax. The author's description of these parts, though slightly at variance with the statements of some, yet accords fully with those of other writers, while the points themselves can only be settled approximately—not absolutely,—owing to the different conditions in life and death and the changes which follow upon the admission of atmospheric air on opening the cavities of the body.

Although, for the most part, the book is a reprint of the papers in the *St. Bartholomew's Hospital Reports*, the several sections have been revised and somewhat extended. This we find to be the case especially in those on the "Chest" and "Back." The description of the "Thigh" is made more complete, while two fresh sections have been added—one on "Palpation by the Rectum," and the other on "Examination per Vaginam."

In strongly recommending this little work to the notice of students, we cannot refrain from quoting from Mr. Holden's introduction the following passages, which, at the same time, show the intention of the author, and afford material for instructive reflection:—

"Many even advanced students of anatomy are not so ready as they ought to be in their recognition of parts when covered by skin. Men who may be familiar enough with bones, muscles, bloodvessels, or viscera in the dissected subject, are often sadly at fault when they come to put this knowledge into practice."

"Our main object, therefore, is to induce in students the habit of looking at the living body with anatomical eyes, with eyes too at their fingers' ends." . . . . "Is it not of the utmost importance to an operating surgeon that he should have pictures in his mind of the various structures of the body, as they lie grouped, connected, and working together?"

The necessity of anatomy to the surgeon, and the interest and importance which surgery lends to anatomy, are indisputable. One cannot but feel that the best way to induce medical students "to look at the body with anatomical eyes" is to teach them anatomy from a practical standpoint. It is all very well to extol the system of teaching which encourages men to devote their whole thought and attention to sciences like anatomy and physiology, but one very detrimental consequence would follow: these subjects would then be taught without reference to their uses, and the whole object held before the student would be the importance of the subject for itself alone. But the medical student cannot spend his life on these sciences, nor can he give the whole of his student years even to them. He has to know them for the reason that without them he cannot properly know or safely exercise himself in other subjects by which he has to win his bread. He needs to have carefully and frequently placed before him the ultimate practical use of the information he is acquiring, and to be encouraged to acquire it with a utilitarian aim.

In this way his knowledge is much better fixed in his mind, and to this end he is far more likely to be assisted by an anatomical or physiological teacher who is also a surgeon or physician, than by a mere anatomist or physiologist. The pure physiologist will doubtless direct his attention to original research, and may make a valuable discovery. Human anatomy is an exhausted subject, and it is as absurd as it is unnecessary to expect teachers to give their whole time and attention to it. Such specialists are very likely to, and indeed do often, fail in teaching from their want of sympathy for the direction and purpose of the studies of their pupils.

Another advantage is gained by the teachers of these subjects being engaged also in the practice of their profession. The system secures a goodly number of men who have, by devoting much time and thought to anatomy and physiolgy, made themselves much more efficient clinical teachers and also much more able and intelligent practitioners. The mind of the operating surgeon would be far less well stored with anatomical pictures, and that of the clinical physician far less familiar with important physiological processes, if they had not previously been teachers of anatomy and of physiology.

Clinical Studies of Disease in Children: Disease of the Lungs—Acute Tuberculosis. By Eustace Smith, M.D. London: J. and A. Churchill. 1876. Pp. 303.

It is always a pleasure to welcome a book which contains within itself evidence of original work, and more especially when, apart from its scientific interest, it possesses a practical aspect, and leads to a definite result. This work, though small, is a most important one; it is the first of its kind which has appeared in our own language. The only book with which we are acquainted that deals specially with this class of disease was published some years ago by Ziemssen ("Pleurisy and Pneumonia in Childhood": Hirschwald, Berlin; 1862), and was a most valuable addition to our knowledge of children's diseases and the peculiar course which they run. It is, moreover, a most admirable and detailed description of the diseases of which it treats, both from a scientific and from a clinical point of view. Dr. Smith's book, however, is less a scientific than a clinical essay, and is intended to give the author's own view as founded on a large personal experience.

His introductory chapter gives the peculiarities of constitution in early life, and explains the modifications in the course and symptoms of disease which can be fairly traced to these peculiarities; there is also much general information respecting the mode of examination of young children which cannot fail to interest those who are engaging in this class of practice. He then proceeds to his subject-matter, and deals first with collapse of the lung. This is rightly characterised as "one of the most important diseases of early life." Its causes, both immediate and remote, are briefly given, and some illustrative cases appended. The author next takes croupous pneumonia. From a general point of view the subject is well handled, although we think that in a book of this kind some of the rarer forms should have been more thoroughly described; for instance, very little is said concerning acute pneumonia of the apex ("cerebral pneumonia" of Rilliet and Barthez). This is a subject well worthy the attention of those who make children's diseases a special study, for the peculiar symptoms which not infrequently supervene have deceived even those who ought to know better. Although it is now some years since this form of pneumonia was first noticed, the original description by Rilliet and Barthez remains unsurpassed.

The author in the next chapter goes on to consider pleurisy, including, of course, empyema and its treatment. This is an exceedingly interesting subject, and contains some valuable information. We notice with pleasure the free use which is made of the pneumatic aspirator, both for purposes of diagnosis and treatment; "on account of the early period at which the fluid becomes purulent in children, and the danger of such purulent collection giving rise to tuberculosis—a result of the disease which ought especially to be guarded against—an effusion should never be allowed to remain longer than three weeks, if no signs of absorption have been discovered." Such is the author's advice, and in it we fully concur. His directions as to where the puncture should be made seem to us rather too precise. It has been our habit to puncture at the point of greatest dulness, and in cases of

loculated empyemata such is certainly the only means by which we can get at the pus.

We would advise our author to reconsider the subject of anæsthetics, which he looks upon as unnecessary. Our own experience inclines us to look upon them as a very desirable aid during thoracentesis. They generally reduce the distressing cough to a minimum, and always allow the surgeon to do his work slowly and thoroughly, and thus spare the child much unnecessary fatigue, fright, and pain.

Chapters v., vi., and vii. are devoted to a consideration of broncho-pneumonia, its etiology, course, and treatment. If we have anything to find fault with here it would be with the too slight importance which is laid on climate as a therapeutic agent in the treatment of the chronic forms of this disease, though this is a fault rather of omission than of commission.

Finally comes acute tuberculosis—general, meningeal, and peritoneal. Here there is nothing new either concerning its pathology or its symptoms. The subjects are exceedingly well described, and, as in former chapters, so in these, there is a series of well-reported and characteristic cases.

Report of the Health of Liverpool during the Year 1875. By W. S. Trench, M.D., Medical Officer of Health for the Borough. Liverpool: Henry Greenwood, 32, Castle-street. 1876.

Report on the Sanitary Condition of Birkenhead and Claughton-cum-Grange for the Year 1875. By Francis Vacher, Medical Officer of Health for the District. Birkenhead: Willmer and Sons, 64 and 66, Chester-street. 1876.

Report on the Health of the Borough of Birmingham for the Quarter ending April 1, 1876; *also on the Proceedings taken under the Act for the Prevention of Adulteration of Articles of Food and Drink.* By Alfred Hill, M.D., Medical Officer of Health and Analyst to the Borough. Birmingham: W. G. Moore and Co., Scotland-passage, High-street.

We have much satisfaction in noticing the foregoing reports, as they afford abundant evidence of the good effects which are resulting from recent legislation for preserving the public health. From the care with which the necessary statistics are compiled, and the useful suggestions which in many cases accompany them, it is evident that the gentlemen who have undertaken the responsible duties of health officers are determined to show how urgent was the need for their appointment, and how much yet remains to be done before many old-established and startling abuses can be swept away. Pressure on our space prevents us entering more fully into the several reports, which, locally, would prove interesting to all those who make a study of sanitary legislation.

Académie des Sciences.—Prof. Vulpian was elected a member in place of the late Prof. Andral by thirty-three votes against the twenty-four obtained by M. Marey. Dean of the Faculty of Medicine and Member of the Academy of Medicine and now of the Academy of Sciences, M. Vulpian has attained the summit of medical distinction at an unusually early period, his diploma of Doctor only having been conferred in 1853.

Wills.—The will of Dr. Letheby, late Medical Officer of Health to the City of London, who died on March 28 last, has just been proved by his widow, the sole executrix, the personal estate being sworn under £25,000. He bequeaths all his real and personal estate to Mrs. Elizabeth Letheby, his wife.——The will of Sir John William Fisher, F.R.C.S. Eng., formerly Surgeon-in-chief to the Police, has also just been proved by Dame Lilias Stuart Fisher, the widow and sole executrix, the personal estate being sworn under £50,000; he gives the whole of his real and personal estate to his wife.

Detected by its Smell.—The *Bulletin* of the French Anti-Tobacco Society, in relation to a recent case of poisoning in Paris, recalls an episode of another celebrated case—that of Count Bocarmé, in Belgium, accused of poisoning many years ago. While Dr. Stas, Professor of Chemistry in the Brussels Ecole Polytecnique, was engaged in examining the intestines of the victim, he called out to those present to cease smoking, as he could not endure the smell of tobacco. It turned out that no one was smoking, but a ray of light was shed upon the hitherto obscure case, and the appropriate tests being applied, nicotine, the instrument of the crime, was discovered. Had Prof. Stas been a smoker, this detection would never have taken place, and the culprit who was executed would have escaped.—*Union Méd.*, May 23.

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 25:—

Clarke, Richard, Henton, Somerset.
Harvey, Joseph Jarrom, Birmingham.
Pratt, Alfred, Overton, Hampshire.
Richards, Philip Morgan, Fennard, Ruabon.

The following gentlemen also on the same day passed their primary professional examination:—

Hine, Alfred Leonard, Middlesex Hospital.
Prosser, Thomas Gilbert, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Snow, Herbert Lumley, M.D.—Surgeon to the Cancer Hospital, Brompton, *vice* George Richard Irvine, M.D., resigned.

Shoolbred, William A., M.R.C.S., F.L.S., L.S.A.—House-Surgeon to the Wolverhampton and Staffordshire General Hospital, *vice* C. Lamb Taylor, resigned.

Twining, Frank T., M.B. Cantab., M.R.C.S. Eng.—Assistant Medical Officer at the Homerton Fever Hospital.

NAVAL, MILITARY, &c., APPOINTMENTS.

War Office.—Medical Department.—Deputy Surgeon-General Richard Coffin Elliot, C.B., to be Surgeon-General, *vice* John Drope McIllree, retired upon half-pay; Surgeon-Major Michael Fenton Manifold to be Deputy Surgeon-General, *vice* Richard Coffin Elliot, C.B., promoted; Surgeon-Major Alexander Edward Bartlett is placed upon temporary half-pay; Surgeon-Major Andrew Knox Rickards retires upon temporary half-pay. To be Surgeons-Major.—Surgeons Alexander Jennings, M.D., and Frank Simpson, African Medical Staff; John Dunstan, Acheson George Bartley, M.D., Henry Frank Hensman, John Barlow Hannah, M.D., Richard Patrick Ferguson, Alexander Ferrier Churchill, M.D., John Stannard M'Adam, Edward Nicholson, Alfred John Belemore, David Mackie, M.D., William George Ross, M.D., Richard William Hare, M.B., Charles Stratherne Close, George Nicol Irvine, M.D., William Henry Bant Clapp, M.D., John Mangin Waters, Campbell Millis Douglas, M.D., V.C., John Elward Fannin, Charles Albert Maunsell, M.D., Joseph Lindsey Curtis, William Folliott, Kenneth William Cumming, M.D., Frederick Beaufort Scott, M.D., Ignatius McDonogh O'Farrel, John Langdon, Gough Ashton, M.B., William Creyk, M.B., Alexander Brebner, M.D., William Nash, M.D., William Edmondson Dudley, Alexander Doig, William West Quinton, M.B., William Thomas Martin, M.D., William John Page, Frederick Ferguson, M.D., Robert William Troup, M.B., James Forbes Beattie, M.D., Alex. Thomson, M.D., Alexander Turner, M.D., Alexander Francis Preston, M.B., Richard William Forsayeth, Charles McDonogh Cuffee, Valesius Skipton Gouldsbury, M.D., C.M.G., African Medical Staff; John Alexander Shaw, M.D., Charles Haines, Forbes Dick, M.D., Hopetoun Currie Collier, Joseph Ridge Greenhill, Hubert Rothwell Greene, Robert Henry Bolton, James Barker, James Barry, M.D., African Medical Staff; Charles Alfred Atkins, William Patrick Smith, Christopher John Weir, M.B., Francis Howard, M.D., William Elgee, Thomas Moriarty, M.D., John Wallace, M.D., William Jobson, M.D., Joseph Fleming, M.D., Warner Atkinson, Thomas William Orwin, Richard Charles Coleman Hickson, Thomas Gardiner Bolster, M.D., Heinrich Frederich Lawdetz Melladew, M.D., John Middleton, M.D., David Arthur Leslie, M.D., Henry Skey Muir, M.D., John William Maxham, M.D., Robert Hyde, Thomas Samuel Barrow, M.D., Michael Cogan, Richard Turner, M.D., Charles Fleetwood Churchill, M.B., Thomas Babington, John Ambrose, M.D., John Anderson, Francis Johuson, M.B., Alexander Minto, M.B., George Atkinson, M.B., John Gray, M.D., Thomas Moore Kirkwood, Richard William Davies, George Francis Dooley, and John Nugent Stock.

BIRTHS.

Atkinson.—On May 23, at Clydesdale House, Kingston-on-Thames, the wife of Frederick P. Atkinson, M.D., of a daughter.

Badcock.—On May 29, at 126, Gower-street, Bedford-square, the wife of John Henry Badcock, M.R.C.S., of a daughter.

Crew.—On May 27, at Higham Ferrers, Northamptonshire, the wife of John Crew, L.R.C.P., of a son.

Hall.—On May 25, at Laurel Villa, Victoria-road, Surbiton, the wife of Edgar A. Hall, M.B., C.M. Edin., of a son.

Norbury.—On May 21, at 1, Albert-terrace, Mount Radford, Exeter, the wife of Henry F. Norbury, M.D., R.N., Staff-Surgeon H.M.S. *Juno*, of a son.

Saunders.—On May 24, at Elmstead Wood, Chislehurst, the wife of W. Sedgwick Saunders, M.D., of a son.

Stokoe.—On May 27, at The Chestnuts, Beddington, the wife of Paul Henry Stokoe, B.A., M.D., of a daughter.

MARRIAGES.

Edwards—Baynes.—On April 18, at the Cathedral, St. John's, Antigua, W. J. Arthur Elliott Edwards, M.R.C.S. Eng., to Sarah, eldest daughter of Edwin Donald Baynes, Esq., Colonial Secretary and Lieutenant-Governor of the Leeward Islands.

Edye—Huish.—On May 27, at St. Matthias, Richmond, Surrey, Ernest Edye, to Catherine Sophia, fourth daughter of the late H. Huish, M.D., Surgeon-Major 3rd (K.O.) Hussars.

MACCALL—MACKECHNIE.—On May 25, at the Congregational Church, West Hartlepool, Dr. Maccall, Crook, Durham, son of Thomas S. Maccall, M.D., J.P., of Hay Park and Mid Newlands, Stirlingshire, to Emlie Annie, eldest daughter of Dr. Mackechnie, of West Hartlepool.

DEATHS.

BOASE, ELIZABETH VALENTINA (STODDARD), the wife of Henry Samuel Boase, M.D., F.R.S., at Seafield House, Magdalen-place, Dundee, on May 13, in her 77th year.

COOTE, RICHARD HOLMES, elder son of the late Holmes Coote, Senior Surgeon to St. Bartholomew's Hospital, at 4, Coleherne-road, West Brompton, on May 27, aged 17 years.

DRUITT, CUTHBERT, R.N., third son of Robert and Isabella Druitt, of No. 8, Strathmore-gardens, Kensington, W., on April 13, at Honda, U.S. of Columbia, of acute dysentery (on his way from Jamaica, where he was married February 15, to the Malpaso Gold-mines, of which he was manager), aged 25.

FINCH, MARY LOUISE, of 32, Lee-terrace, Blackheath, eldest daughter of the late Charles Denyer Finch, M.D., of Tulse-hill, Surrey, at St. Leonard's, of enteric fever, on May 26, aged 27.

MARRIS, ROBERT PETTENER, M.R.C.S., at Kingsland, Herefordshire, on May 17, in his 75th year.

SHEPHERD, WILLIAM ASHTON, M.D., Surgeon-Major in H.M's. Indian Army, Port-Surgeon at Aden, and eldest son of the late Rev. William Shepherd, Rector of Margaret Roding, in the county of Essex, at sea, on his way home, in May, aged 54.

SINCLAIR, ERIC WILLIAM ALEXANDER, only surviving son of the late Donald Sinclair, M.D., of Peckham, at 30, Sydney-street, Fulham-road, on May 15, aged 21.

WEBB, EMMA JANE, widow of the late Allan Webb, M.D., Surgeon-Major Bengal Medical Staff, at 27, Aldridge-road-villas, Bayswater, on May 22.

WHITE, Dr. CHARLES, at Hove Lodge, Cliftonville, Brighton, on May 23, aged 76.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

BOURNEMOUTH GENERAL DISPENSARY.—House-Surgeon. Candidates must possess a qualification both in medicine and surgery and be registered. Salary £120, with furnished apartments, coals, gas, and attendance. Testimonials, etc., to R. T. Hearn, Esq., on or before June 15.

BRISTOL ROYAL INFIRMARY.—Assistant House-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin, or Masters in Surgery of one of the universities of the United Kingdom, and also possess a registered medical qualification. Applications, with testimonials, to the Secretary, on or before June 7. Salary, £100 a year, with apartments, board, and washing.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Medical Officer of Lock Ward. Candidates must be registered and unmarried. Salary, with board and residence, £150 per annum for first six months, afterwards £200 per annum. Applications and testimonials to Chairman of the Committee, on or before June 12.

ROYAL ISLE OF WIGHT INFIRMARY, RYDE.—House-Surgeon and Secretary. Applications, with testimonials, to the Secretary, not later than June 14.

SETTLE UNION.—Medical Officer. Applications, with testimonials, accompanied by diplomas, to John Lister, Union Clerk, before June 13.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications to the Treasurer, at the Counting-house, Westminster-bridge, S.E.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Smallburgh Union.—Mr. C. F. Buchan has resigned the Ludham District; area 17,139; population 3668; salary £57 per annum.

APPOINTMENTS.

West Derby Union.—Robert S. Archer, B.M.&M.C. Dub., as Resident Assistant Medical Officer at the Mill-road Workhouse Hospital.

Norfolk Union.—Francis Sutton, F.C.S., as Analyst for the County for one year.

THE METROPOLITAN FREE HOSPITAL.—The annual dinner of the subscribers to the Metropolitan Free Hospital was held at the London Tavern on May 24, under the presidency of Sir Charles H. Mills, Bart., M.P. The subscriptions announced during the evening amounted to £2150, including a gift of £500 from an anonymous donor.

HEADACHE FROM EYE-STRAIN.—Dr. Weir Mitchell observes that few but ophthalmic surgeons are aware of the need of interrogating the eye for answers to some of the hard questions which are put to us by certain head-symptoms; and he wishes to impress upon the profession—1. That there are many headaches which are due indirectly to disorders of the refractive or accommodative apparatus of the eyes. 2. That in in these instances the brain symptom is often the most, and sometimes the sole, prominent symptom of the eye-trouble, so that while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache. 3. That the long continuance of eye-trouble may be the unsuspected source of insomnia, vertigo, nausea, and general failure of health. 4. That in many cases the eye-trouble becomes suddenly mischievous, owing to some failure of the general health, or to increased sensitiveness of the brain from moral or mental causes. Several illustrative cases are given.—*American Jour. of Med. Science*, April.

ROYAL COLLEGE OF SURGEONS.—At the half-yearly examination for the diploma of Fellowship, which was brought to a close on the 30th ult., thirty candidates presented themselves, whose diplomas of membership of the College ranged from April, 1860, to May, 1875. Seventeen passed, and thirteen were referred to their professional studies for one year. The names of successful candidates cannot be published until submitted to and confirmed by the Council on the 8th inst. The following were the questions on pathology, therapeutics, and surgery submitted to the candidates at the written examination, when it was necessary to answer all four of the questions, viz.:—1. Describe the chief features peculiar to all the varieties of the healing process in wounds of cartilage, nerve, muscle, and skin. 2. To what causes may enlargement of the cervical lymphatic glands be due? Describe, in detail, the anatomical characters of the disease in each case. 3. Give the pathology, diagnosis, and treatment of the various forms of pulsating tumour of the orbit. 4. Describe the congenital malformations of the bladder and penis, and the modes of treatment adopted in each. Professor Carter will commence his course of lectures on Questions in Ophthalmic Surgery on the 5th inst. The following is a copy of his programme, viz.:—Lecture 1 (June 5), On Ophthalmology in its relation to General Surgery; Lecture 2 (June 7), On Glaucoma; Lecture 3 (June 9), On Irideetomy and its Uses; Lecture 4 (June 12), On Iritis and Sympathetic Ophthalmia; Lecture 5 (June 14), On Cataract Extraction; Lecture 6 (June 16), On Strabismus. The course of College lectures will be brought to a close by Professor Turner, who will deliver three lectures on the Comparative Anatomy of the Placenta.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Insurer.—Some offices would at once decline such a life; but some might accept it at an increased rate of premium.

Coroners.—A deputation was appointed, at the meeting of the Middlesex magistrates last week, to wait on the Home Secretary on the subject of the duties and the mode of election of coroners, with the object of obtaining an amendment of the law.

Primary Fellowship.—Mr. G. R. Turner, of St. George's Hospital, writes to say that his name was omitted from the list of gentlemen (published last week) who passed the primary Fellowship examination on Wednesday, May 24.

Obstetric.—The practice of midwifery was almost co-existent with the human species. "There must have been a time," says Dr. Denman "when the rude but well-meant endeavours of one friend to relieve another in distress ceased, and application was made to those who were supposed to have more information or greater skill. This would properly be the origin of the art." In 1540 was published the first book on the subject of midwifery in England, entitled, "The Byrth of Mankynde, otherwise named the Woman's Book," by Thomas Raynold, physician. Dr. Maubray was the first public teacher of midwifery in this country.

Medical Relief.—It was the member for Westminster, Mr. W. H. Smith, who stated publicly that at one time he caused inquiries to be made into the condition of the out-patients at one of the large metropolitan hospitals, and he found that 20 per cent. gave false addresses. Lord Shaftesbury, in opening the Shaftesbury-park, stated—and the statement has been subsequently confirmed—that the total receipts of the wage-earning classes in this country are not less than £100,000,000 per annum, and that at least one quarter of this sum is expended upon deleterious commodities, or upon things that could easily be dispensed with.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—Nature—The Whitehall Review—The Shield—The Manchester Courier—Hardwicke's Science Gossip, June—Philadelphia Medical Times—The York Herald—Turf, Field, and Farm—The Leisure Hour, June—The Sunday at Home, June—El Siglo Medico—Gazeta Medica du Bahia—The Veterinarian, June—The Freeman's Journal—Edinburgh Medical Journal, June.

BOOKS AND PAMPHLETS RECEIVED—

Walter Noel Hartley, F.C.S., on Air and Its Relations to Life—Francis Vacher on Serum Sanguinis as a Therapeutic—Walter Reid, M.D., R.N., A New Method of Treating External Aneurism—Discussion in General on Christianity, translated from the Arabic language by his Excellency Abdul Hamed Bey—Patrick Black, M.D., An Essay on the Use of the Spleen—J. V. Worthington, L R.C.P., etc., Report of the Health of the Township of Garston during the year 1875—Nathan Allan, M.D., LL.D., The Normal Standard of Woman for Propagation—Report of the County Lunatic Asylum at Prestwich—James Patterson Cassells, M.D., M.R.C.S. Lond., Otological Memoranda, being Clinical Observations illustrative of the Diseases and Injuries of the Ear; on Conservative Aural Surgery —Specimen Fasciculus of a Catalogue of the National Medical Library under the direction of the Surgeon-General, United States Army, at Washington, D.C.—George Wilson, M.A., M.D., Sanitary Work in Villages and Country Districts—V. P. Gibney, A.M., M.D., Perinephritic Abscess in Children, with a Report of Nine Cases—Kenneth McLeod, A.M., M.D., Medico-Legal Experience in the Bengal Presidency—A. M. Rosebugh, M.D., A Brief Report of Cases of Sympathetic Ophthalmia and Sympathetic Irritation; On some Practical Points in the Treatment of those forms of Eye Disease of most frequent occurrence in general practice; Treatment of Acute Iritis in Adults—Eighth Annual Report of the Toronto Eye and Ear Infirmary—Tilbury Fox, M.D., Atlas of Skin Diseases, part ix.—J. Langdon Down, M.D., on the Education and Training of the Feeble in Mind—H. Franklin Parsons, M.D., First Annual Report on the Sanitary Condition and Health of the Goole Urban Sanitary District during 1875—St. Agnes (Private) Hospital Report—Sixth and Seventh Annual Reports of the Leamington Provident Dispensary.

COMMUNICATIONS have been received from—

Mr. H. S. Cartwright, London; Mr. Sydney Jones, London; Mr. Walter Whitehead, Manchester; Dr. James Dunlop, Glasgow; The Registrar-General, Edinburgh; Dr. Henry Simpson, Manchester; Secretary of the Apothecaries' Hall, London; Mr. C. Macnamara, London; Mr. Thos. Whiteside Hime, Sheffield; Mr. Wm. Douglas Hemming, London; Dr. Edward Sparks, Montreux; Dr. G. P. Fincham, London; Dr. Francis R. Hogg, Meerut; Mr. Heather Bigg, London; Dr. C. H. Leonard, Providence, U.S.A.; The Registrar-General, Queensland; The Sanitary Commissioner, Punjaub; Mr. G. R. Turner, London; Dr. E. B. Baxter, London; Dr. William Alexander, Liverpool; Mr. Wharton Jones, London; Mr. Thomas Smith, London; Dr. Carr, London; Secretary of the Royal Microscopical Society; Mr. Henry Morris, London; Dr. J. R. Wolfe, Glasgow; Mr. J. Chatto, London; Mr. George Brown, London; Dr. Beveridge, Aberdeen; Dr. Laycock, Edinburgh; Dr. Nathan Allen, Lowell, U.S.A.; Dr. Wiltshire, London; Dr. Rogers, London; Secretary of the Royal Institution; Dr. A. E. Sansom, London: Dr. J. Pearson Irvine, London; O. D., Edinburgh; Mr. Hancocke Wathen, Fishguard; Dr. George Johnson, London; Mr. Jonathan Hutchinson, London; Dr. J. W. Moore, Dublin; Dr. Dobson, Clifton.

APPOINTMENTS FOR THE WEEK.

June 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

5. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 2 p.m. General Monthly Meeting.

6. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. W. G. Adams, "On some of Wheatstone's Discoveries and Inventions."

7. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Microscopical Society, 8 p.m. Meeting.

Obstetrical Society, 8 p.m. Abstract of Dr. Gervis's paper, "On a Case of Puerperal Septicæmia." Dr. Wiltshire, "Notes of a Case of Puerperal Septicæmia and Phlegmasia Dolens; Recovery." Dr. Braxton Hicks and Dr. Goodhart, "On the Displacement of the Uterus by Distension of the Bladder, as shown by Experiments on the Dead Body." And other Communications.

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Voltaic Electricity."

9. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Tyndall, "On the Parallel Roads of Glen Roy." (Close of the season.)

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 27, 1876.

BIRTHS.

Births of Boys, 1135; Girls, 1129; Total, 2264.
Average of 10 corresponding years 1866-75, 2096·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	765	681	1446
Average of the ten years 1866-75	671·9	619·2	1291·1
Average corrected to increased population ...	...	...	1381
Deaths of people aged 80 and upwards ...	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	20	5	3	9	...	...	1	3
North... ...	751729	...	6	6	4	15	1	3	1	3
Central ...	334369	...	2	3	...	2	...	4	1	2
East	639111	...	4	5	2	12	2	1	3	1
South... ...	967692	3	8	17	1	21	1	4	3	5
Total	3254260	3	40	36	10	59	4	12	9	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·665 in.
Mean temperature	51·1°
Highest point of thermometer	73·6°
Lowest point of thermometer	38·5°
Mean dew-point temperature	45·7°
General direction of wind	S.W. & N.W.
Whole amount of rain in the week...	1·13 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 27, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending May 27.	Deaths Registered during the week ending May 27.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2264	1446	73·6	38·5	51·1	10·62	1·13	2·87
Brighton	100632	42·7	58	45	65·5	39·6	50·3	10·17	0·95	2·41
Portsmouth ...	124867	27·8	71	52	...	...	...	...	...	...
Norwich	83430	11·2	42	34	64·2	42·0	50·7	10·39	0·27	0·69
Plymouth	72230	51·8	46	32	62·0	42·0	52·2	11·22	0·13	0·33
Bristol	199539	44·8	129	83	71·7	40·1	52·7	11·50	0·20	0·51
Wolverhampton ...	72549	21·4	49	36	73·3	41·4	50·9	10·50	0·64	1·63
Birmingham ...	371839	44·3	252	151	...	...	...	...	...	...
Leicester	113581	35·5	76	41	71·0	39·0	51·1	10·62	0·55	1·40
Nottingham ...	93627	46·9	70	39	73·6	38·1	51·9	11·06	0·51	1·30
Liverpool	521544	100·1	370	247	63·2	42·8	50·0	10·00	0·34	0·86
Manchester ...	357917	83·4	279	177	...	...	...	...	...	...
Salford	138425	26·8	115	78	69·7	38·9	49·9	9·94	0·84	2·13
Oldham	88609	19·0	80	52	...	...	...	...	...	...
Bradford	173723	24·1	129	84	65·7	40·6	50·5	10·28	0·66	1·68
Leeds	291560	13·5	219	117	70·0	40·0	51·1	10·62	0·74	1·88
Sheffield	274914	14·0	215	120	69·0	41·0	50·8	10·45	1·00	2·54
Hull	136933	37·7	98	56	...	...	...	...	...	...
Sunderland ...	108343	32·8	76	43	61·0	43·0	49·9	9·94	0·98	2·49
Newcastle-on-Tyne	139929	26·1	115	51	...	38·0	...	...	1·25	3·17
Edinburgh	215146	51·3	131	96	69·0	40·5	53·0	11·67	...	...
Glasgow	545144	90·4	401	264	34·9	42·0	53·1	11·73	0 73	1·85
Dublin	314666	31·3	174	139	70·5	40·7	53·5	11·95	1·01	2·57
Total of 23 Towns in United Kingdm	8028595	37·7	5489	3486	73·6	38·0	51·3	10·73	0·70	1·78

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·67 in. The highest was 30·00 in. at the beginning of the week, and the lowest 29·50 in. on Wednesday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

MEETING

OF THE

GENERAL MEDICAL COUNCIL,

HELD AT THEIR HOUSE, OXFORD-STREET, W.

SIXTH DAY—TUESDAY, MAY 30.

UPON the resumption of business this day, it was resolved that the amended Report of the Committee on Lord Carnarvon's Bill, relating to experiments on animals, be referred back to the Committee for examination and correction.

Mr. SIMON moved that the following rider be added to the Report on Lord Carnarvon's Bill:—"In conclusion, the General Medical Council would submit to her Majesty's Government that, in suggesting the above amendments in Lord Carnarvon's Bill, the Council have no desire to provide legal immunity for persons (if such there are in this country) who, under pretext of scientific purpose, would be willing to act cruelly towards any brute animal. But the Council are satisfied, and they refer to the Report of the Royal Commission in support of this assurance, that in this country there does not exist, nor, in the present state of public and professional opinion, is likely to exist, any appreciable class of such persons. And the Council would deeply regret that her Majesty's Government, in order to provide safeguards against a greatly exaggerated danger, should proceed as if a willingness for cruel action were general among persons engaged in studying and teaching the physiological sciences, and should submit those studies to such minuteness and stringency of regulation as if they were of criminal intention." He observed that in the Committee which drew up the Report the feeling was quite general that persons engaged in scientific pursuits had very great ground of complaint against the spirit in which the Bill was conceived. Nearly all the amendments which the Committee suggested, and which the Council had now adopted as applicable to the Bill, referred to points in which that spirit was evinced in the attempt to impose extremely minute and stringent regulations on persons who, in the course of their scientific pursuits, might have to deal with animal life. The intention of the rider which he had now proposed was to give, as it were, the keynote to the spirit of the amendments which the Council had made in the Bill, and to show, if it required showing, that they thoroughly sympathised with the Government in a willingness that brute animals should not be subjected to anything which could reasonably be called cruelty, or which could be called cruelty compared with the general use which their fellow-citizens made of brute animals; and to show, further, that the Council were willing to accept any reasonable amount of regulation, but that they demurred to regulations not applicable to their class, and conceived in a spirit of universal suspicion against them.

Sir WILLIAM GULL said that he had much pleasure in seconding the rider. He was not sanguine enough to believe that, in the midst of so much prejudice, the voice of reason would be heard. He had never known, since he had been on the Council, so much labour bestowed on a report; but he believed that that labour would be, to a great extent, in vain. The public mind was in a state of excitement, and he felt that one might as well have appealed against witches in the sixteenth century as now to appeal in favour of some careful legislation in respect to this so-called vivisection. H could not forget that one of the most distinguished noblemen in this country had said that he would carry the legislation so far as to proscribe any form of vivisection whatever. That nobleman was Lord Shaftesbury, of whom, generally, he (Sir William Gull) had a great admiration. When he remembered that Luther had said in his time "I would that all those witches were burnt," he felt that Lord Shaftesbury was repeating, in his own mind, the same feeling against vivisection which Luther had against witchcraft. As there were no witches, Luther's animus, though truthful to him, was utterly misplaced. So it was, he believed, with most people who were now so much occupied with vivisection. They felt that there was great and real danger to morals in this country. He believed that that feeling was as unfounded as the idea that there were witches in the days of Luther, and that the two things were exactly parallel. It was a question whether there was to be an extension of biological knowledge in this country, or whether biological study must fly to some other country to be pursued.

Sir DOMINIC CORRIGAN rose in support of the rider, but he would suggest the addition of a single sentence, which would have the effect of making it stronger. He proposed to add, "And, in fine, the General Medical Council submit, after mature consideration, that the whole subject is not one for legislation at present, but may be safely left to the control of public opinion and good feeling." He would not bind himself to say that it might never become necessary to introduce legislation, but he thought that they ought to put on record their impression as expressed in the sentence he had proposed. He believed that the addition would strengthen the rider proposed by Mr. Simon. He could not take the view expressed by Sir William Gull, that legislation was inevitable. On the contrary, if the Council took the view that there were no grounds for legislation at present, he thought that they ought to stand by it; and whatever the public might say, and whatever good-natured old women and young women might say on the subject, they, as labourers in those sciences which tended to the relief of human suffering, ought to express their opinion that at present they saw no necessity for legislation.

Dr. AQUILLA SMITH seconded the addition proposed by the last speaker. He said that it was entirely in accordance with the opinions which he formed at a very early stage of his consideration of the Bill. Every member of the Council who had spoken on the subject had been very decided in his condemnation of the Bill.

Mr. SIMON requested that the rider itself should be put to the meeting before the addition proposed by Sir Dominic Corrigan was submitted.

Sir DOMINIC CORRIGAN concurred with this suggestion.

Dr. ROLLESTON said that he agreed with Sir William Gull that a large amount of pains had been bestowed by the Committee on this subject. They sat for two successive days of six hours each day, upon what was certainly a painful subject. But he thought that the Council would do well if they abstained from accepting Mr. Simon's rider. He took exception to the statement that there did not exist any appreciable class of persons in the profession who would be willing to act cruelly towards brute animals. The statement of Mr. Erichsen and Mr. Huxley in the Report of the Royal Commission was, "It is not to be doubted that inhumanity may be found in persons in very high position as physiologists." If the sentence stating that there was no appreciable class of such persons was left out, he should not object to the rider; but the rider, as it stood, quoted the Report of the Royal Commission in a sense which the Report would not bear. Years ago, experiments were made at which one shuddered, and which were a disgrace to those who performed them. He did not value public opinion in this matter further than believing that the present call for a certain amount of regulation was really an onward movement resulting from the progress of the race upwards.

Mr. SIMON, in support of the statement in his resolution, that there did not exist any appreciable class of persons who would be willing to act cruelly towards brute animals, quoted the following passage from the Report of the Royal Commission:—"We have satisfaction in assuring her Majesty that at the present time a general feeling of humanity appears to pervade all classes." The Secretary of the Society for the Prevention of Cruelty to Animals gave evidence which warranted the assertion.

Mr. QUAIN called attention to another portion of the rider—namely, "The Council have no desire to provide legal immunity for persons who, under the pretext of scientific purpose, would be willing to act cruelly towards any brute animal." Why should the Council disclaim anything so contemptible, immoral, unmanly, and mean? It would be unworthy of the Council to disclaim any such imputation, and therefore he would be unable to vote for the rider.

The motion was carried by a large majority.

Sir DOMINIC CORRIGAN again brought forward the further rider which he had previously proposed, and agreed to defer until the rider of Mr. Simon had been disposed of. He said that there were two points in Dr. Rolleston's mind from which he never departed. One was that the Royal Commission was to overrule everybody and everything, and the other was that an Act on the subject was inevitable. He (Sir Dominic) doubted whether there was sufficient reason for saying that it was inevitable. The Government brought in many Bills every session which were never carried into law.

Mr. LISTER said that his only objection to Sir Dominic Corrigan's rider was that it was superfluous.

Dr. Thomson said that it was extremely important that in anything which they did they should be unanimous. They had already done quite sufficient to enter their *caveat* against indiscriminate and vexatious legislation.

The motion was negatived by a small majority.

The amendment added by Mr. Simon was then referred to the Committee which had charge of the other portions of the Report.

Mr. Lister said that there was a point of very considerable importance about which he wished to make a proposal. He would suggest the introduction of the word "severe" before the word "pain," where it occurred in the Bill. The subject could be referred to the Committee.

Mr. Simon said that this alteration would raise the whole question of pain, and introduce a considerable and somewhat difficult discussion.

Sir William Gull remarked that there might be all the evidences of pain, aud an animal might contort himself in all the ways which were called exhibitions of pain, and yet be free from pain. Therefore to estimate the severity of pain was a simple impossibility outside the animal. The question of the severity of pain was as insoluble as the question, "What is an animal?" He thought that it would be better not to press the alteratiou.

On the question whether the Committee should be asked to consider the advisability of the introduction of the word "severe,"

Mr. Macnamara protested against the amendment being referred to the Committee. That body would have to report to the full Council, and the latter would then have to enter into a discussion upon the matter; such discussion might as well take place at once. The remaining functions of the Committee with regard to the Report were simply editorial.

The President said that it seemed to be the wish of the Council that whatever substantial additions were made to the Report should be brought forward at once.

Mr. Lister then formally moved that before paragraph (*a*) of the Committee's Report the following words should be inserted:—"And the Council would suggest that the word 'severe' should be introduced before the word 'pain' in Clause 2 of the Bill, page 1, lines 12, 14, and 23." He said that he believed that it was one of the most important duties of the Council to do what they could to prevent the Bill being such as to interfere with the progress of knowledge. There would be a terrible interference with that progress if it was to be understood that every animal that writhed and wriggled was in pain; and that every person who made an experiment on such an animal was to be prosecuted for the crime of misdemeanour. In that case the law would have a most disastrous effect on physiological investigation. If the Bill passed in its present form, the exhibition of the circulation of blood in the frog's web would be absolutely illegal. On the principle that a frog suffered as a man suffered, there could hardly be a more painful experiment than that of tying out the toe-tips tightly with string, not to mention the irritants which were afterwards applied to them. It was the duty of the Council to suggest some limitation. He believed that, when the subject came to be understood, it would be found that a frog's sufferings were not to be contemplated. Experiments no worse than vaccination, which could not be said to give severe pain, would be absolutely prohibited by the Bill, as would also the inoculation of a cow with small-pox. It might be argued that the word "severe" was indefinite; but so was the word "animal." The interpretation must be left to common sense. The essential question of the whole Act was whether an experiment was a cruel thing or not. It was cruel, or otherwise, according to the motive with which it was performed; and especially according to the pain inflicted. If an experiment was not one which caused an appreciable degree of pain, it was not cruel. The question, surely, was not a merely metaphysical one. One of the Commissioners asked him, "If a worm struggles upon a hook, do not you think it feels?" He believed that if a worm's head was cut off the worm did not feel. He once pinched a long sea-worm with a pair of forceps, for the purpose of getting it out of a hole in the rock, and the creature went on moving its head backwards and forwards in search of food without taking any notice whatever of what he was doing to it. Nature seems to have made those creatures, to which inevitable injury occurred from time to time, less sensitive than the public thought them to be. If the Council, as a scientific body, knew that the mere manifestation of movement under irritation was not an indication of pain, they were bound to give some sort of expression to that belief. The introduction of the word "severe" would work practically towards mitigating the severity of the operation of the Bill.

Dr. Rolleston said that the whole merits of this discussion were dealt with yesterday, when they were considering the division of animals into warm-blooded and cold-blooded. There was no need to hammer away for the purpose of proving that shrieking or the movement of the body was not necessarily an indication of pain. But supposing an endeavour was made in the House of Commons to introduce the word "severe" into the Bill, and it was stated that leaving the clause as it stood would increase the severity of the Bill, the answer would be, "But, surely, putting in the word 'severe' would increase the severity of the operations." He had been entirely loyal to the Committee throughout, and had endeavoured to assist in making the Bill as little hampering as possible to the profession; but were they to assume that the Secretary of State for the Home Department would be guilty of gross absurdities, and "pull up" scientific men who held responsible positions before the world, for operating upon hydras, and for pinning out the feet of a frog? It was stated before the Royal Commission that pinning out a frog's web was not a painful experiment. What was meant by pain was really a question of common sense. Of course any sensible magistrate would say at once that it was such an amount of pain as would be considered a serious matter in man. Could a physiologist be told that a thing to which he would submit himself or his children without any hesitation was a painful experiment when performed on an animal? He did not believe that it would come to be taken for granted that every experiment caused pain. Let them not, by introducing the word "severe," give their enemies an opportunity of saying that they were opening the door to any amount of encroachment upon the realms of humanity.

The motion of Mr. Lister, proposing to introduce the word "severe," failed to find a seconder, and therefore fell to the ground.

Dr. Thomson said that he wished to be allowed to move a resolution in reference to the Report.

Dr. Andrew Wood rose to order. He contended that the discussion which had already taken place was irregular, the Report having been referred to the Committee.

The President agreed that the discussion had not been strictly regular, but the Council seemed to desire that, in so grave a matter, Professor Lister should have the advantage of suggesting additional alterations.

Dr. Thomson held that they did not come there to adopt the Report as it stood. It was open to anyone to propose changes. He held that the paragraph preceding paragraph (*a*) in the Report, and commencing with "In the first place the Council would point out," was an unnecessary paragraph, and he should move that it be omitted.

The Chairman ruled that the discussion of the Report must be regarded as ended for the day. The Report had been referred back to the Committee, to be produced before the Council again in such a form as the Committee thought fit.

The Committee on Parliamentary Bills, etc., presented their Report to the Council, and it was resolved that the same be received and entered on the Minutes.

On the motion of Dr. Thomson, chairman of the Committee, the Council resolved themselves into committee for the consideration of the Report.

Dr. Thomson said that there was quite enough matter in the Report, if they considered it in detail, to occupy the Council for a very long period. Some of the most important and wide questions were therein dealt with in some measure, and it was obvious that were it the desire of the members of the Council to express opinions upon every question, a very long time might be occupied. He scarcely needed to point out to the Council how undesirable such a course of proceeding would be. The Committee of which he was chairman felt this to be the case, knowing the matters that were to come before the Council, and the little time that it might be possible to devote to them. The Committee therefore felt it to be their duty as much as possible to fall back upon the opinions of the Council as previously expressed; and he thought it would be found that although, as he had said, the subjects were very various and very important, the Report contained an adoption and an exposition of the opinions and views which had been previously expressed by the Council rather than any directly new expression of opinion on the part of the Committee itself. With these introductory observations he would

now propose that the Committee of Council should consider the different parts of the Report *seriatim*. It would be seen that the Report was divided into six sections, three of which referred to certain Parliamentary Bills. The other three referred to representations and letters which had been addressed to the Council on several subjects. No doubt some of these were of the same nature as the matters referred to in, at least, one of the Bills; but the Committee thought that it was better that there should be a separation of the documents, and it would be observed that the three Bills therefore stood first in the Report. The first of the Bills was that to be introduced by Mr. Cowper-Temple, and to this he would first direct the attention of the Council by moving the adoption of the first section of the Report, namely—"The Committee have to observe that in the Bill introduced by Mr. Cowper-Temple, with the exception of a few slight verbal alterations, and the addition of Vienna to the list of foreign universities in the schedule, the Bill is precisely the same as that which was brought forward last year, and upon which the Medical Council stated its opinion to the Government (see Minutes of the Medical Council, June 26, 1875, pp. 132, 134, and 137). The Committee see no reason for a change in the views of the Council on the questions involved in the Bill, and they therefore recommend that an answer be transmitted to the Lord President's inquiry with respect to Mr. Cowper-Temple's Bill, in the same terms as that of last year, namely, as follows:—'(*c*.) With regard to Mr. Cowper-Temple's Bill "to amend the Medical Act, 1858, so far as relates to the registration of women who have taken the degree of Doctor of Medicine in a foreign university," considered by itself, and apart from its bearings on the "general question whether women ought to be able to look to medical practice, or certain branches of it, as open to them equally with men, as a profession and means of livelihood," the Council have found no difficulty in forming an opinion. By the Medical Act, 1858, the Council are precluded from registering foreign degrees, and, consequently, have been compelled repeatedly to refuse to register foreign degrees held by men. (*d*.) The reason for this is obvious—viz., that the Council have no means of exercising that supervision and control over the education and examination required for foreign degrees, to which the licensing bodies of this country, whether universities or corporations, are, by the Act of 1858, subjected. But this privilege, which the Medical Act refuses (and, the Council believe, very properly refuses) to men, Mr. Cowper-Temple's Bill proposes to grant to women. Against such a proposal the Council feel bound to offer a protest, as being subversive of the main principle of the Medical Act.' The Committee would further remark that it is deserving of notice that the degrees of Doctor of Medicine conferred by some of the foreign universities of highest repute included in the schedule to Mr. Cowper-Temple's Bill, do not authorise their holders to practise their profession in their own country unless they shall also have passed subsequently, and in addition, a State examination."

The motion was seconded by Mr. QUAIN.

Sir DOMINIC CORRIGAN wished to draw the attention of the Committee to the exceedingly weak position in which they placed themselves by the last two sentences in paragraph (*d*)—"But this privilege which the Medical Act refuses (and, the Council believe, very properly refuses) to men, Mr. Cowper-Temple's Bill proposes to grant to women. Against such a proposal the Council feel bound to offer a protest, as being subversive of the main principle of the Medical Act." They ought not to allow the matter to stand in that way. The question of issuing licences to women on passing examination came before the Senate of the University of Dublin two years ago, and there was a division on the question. The majority of the Senate carried this point—that women should be admitted to a medical degree if they passed all the examinations, and that was all that the University had to do with. Those who were opposed to their admission asked the others to send a case to the law officers of the Crown, and to ascertain from them whether the Queen's University was entitled to give a degree in medicine to a woman, supposing that she passed the examinations. The law officer replied to the effect that under the charter the University was not entitled to give a woman a degree. Mr. Cowper-Temple had introduced a Bill to enable women to obtain the registration of those degrees in medicine which were refused to them by the universities of their own country. The Medical Act refused registration to men, because men had an opportunity of going to the licensing bodies and passing the examinations, and getting their degrees. But Mr. Cowper-Temple said, and he (Sir Dominic) thought with a good show of reason, that he would not have brought in his Bill if our universities and colleges admitted women to the same examination, and granted them degrees on the same terms as men. Mr. Cowper-Temple used an argument, which might be found very hard to answer, which was, that there was no necessity to bring in a Bill to enable men to register foreign degrees, for men could obtain British degrees; but there was a necessity to bring in the Bill as regards women as an act of justice to them, because the universities refuse women admission to the examinations, and that refusal was adduced as a reason for not registering women. He thought that those who supported the Bill would say, "Let the universities and colleges, which are represented at the Council, come forward and do as the foreign universities do—namely, admit women to degrees. You will not do that, and then you adduce your exclusive monopoly as an argument for not admitting women to the Register." He (Sir Dominic) thought that it would be a very weak point to leave the argument on the Report as it at present stood. The point seemed to be evaded.

Mr. MACNAMARA said that the Report guarded the Council most carefully by saying, "Apart from the general question whether women ought to be able to look to medical practice as a profession and means of livelihood." Then they said, "Because we cannot supervise the examinations at foreign universities, we will not allow women to come on the Register. We will not allow women to come on the Register by means of foreign degrees." They had very good reason for refusing to register degrees of foreign bodies, whether they were granted to men or women.

Mr. QUAIN said that Sir Dominic Corrigan had expressed the opinion that the Council were giving the go-by to the whole question of admitting women; but that was not the case, for in a subsequent portion of the Report there was a reference to the subject, and last year there was an expression of opinion that if the Government wished women to be admitted there was an easy way of doing it without breaking the law as it at present stood.

Dr. ANDREW WOOD suggested the addition of the word "only" in the last sentence but one of paragraph (*d*), so that the sentence might read, "But this privilege . . . . Mr. Cowper-Temple's Bill proposed to grant *only* to women." This was one of the peculiarities of the Bill. There was no doubt what the object of the Bill was. The object was to settle the women's question by a side-wind, and he objected to that course. If women were to be admitted to the profession, let them be admitted fairly and honestly by a Bill brought into Parliament for the purpose. The present measure was introduced for the purpose of getting quit of the question, and for admitting women by a side-wind by allowing them to register foreign degrees on the same footing with the British qualifications held by men. He contended that that was not legislation worthy of a British Parliament, and he thought that the Council would be false to their own position if they did not say that they would preserve intact the principle that they would not admit to registration in this country qualifications, over the education and examination for which they had no means of exercising proper supervision. Even if he was for admitting women to the profession—which he was not, for he had never changed his views on the question—he should object to the means which Mr. Cowper-Temple's Bill proposed for doing it. Whatever might be the opinion of the Council with regard to the admission of women, he thought that they ought to have no difficulty whatever with regard to this Bill.

Dr. THOMSON thought that the antithesis was quite strong enough without the introduction of the word "only."

Mr. QUAIN said that the present words were a quotation from last year's Minutes.

The motion for adopting the first section of the Report was then carried.

Dr. THOMSON then moved the first paragraph of the second section of the Report, which was as follows:—"With respect to the Bill introduced into Parliament by Mr. Gibson, the Committee would remark that the first part of this Bill appears to have been framed to meet special restrictions existing in Ireland, and that it proposes to open up to all legally qualified registered practitioners all public medical and surgical appointments in the United Kingdom. The Committee is of opinion that before such a measure is passed by the Legislature, it would be expedient to obtain full information as to

the effect which the enactment of the Bill (Clause 2) would have in throwing open indiscriminately 'all public medical or surgical appointments' in the United Kingdom, the qualifications for which are at present regulated by charter or otherwise." He said that by Clause 2 of Mr. Gibson's Bill it was proposed that all hospitals should be thrown open to medical practitioners. It was doubtful what the effect of that would be; whether it would simply make all practitioners eligible, or would impose upon the bodies the necessity of electing them indiscriminately. No doubt the applicants would have their claims considered upon their merits; but so far as the legal aspect was concerned, it appeared to the Committee that this clause would not only make all practitioners eligible, but impose upon the hospitals the obligation of electing them, providing their general merits were suitable. The Committee thought that if that was the real effect of the Bill, the circumstances of the hospitals ought to be known before legislation was undertaken. But they thought it the most prudent course to advise the Council that, at all events, it would be right that they should know more completely what was the position of the hospitals in respect to their rights, and what their charters enjoined upon them, and whether these rights were in any way inconsistent with the change which the legislation would introduce. The words of Mr. Gibson's Bill were:—"All legally qualified medical practitioners with qualifications in medicine and surgery, registered under the Medical Act, shall be capable of being elected to all public medical or surgical appointments; and, when so elected, shall for all purposes be deemed to be duly appointed, and be entitled to all the emoluments and advantages, and liable to discharge all the duties, of the said offices." The terms of the Report were quoted from that paragraph in the Bill. The Committee thought that it would be right to know how this would affect the rights of the managers of public hospitals.

Mr. Turner said that, as far as he could judge from an examination of the Bill, it appeared that it had been introduced into the House of Commons in order to remedy a certain injustice in Ireland, which was due to the fact that no one was capable there of being elected as surgeon to a county infirmary or hospital unless he had letters testimonial from the Royal College of Surgeons. There seemed to be certain restrictions in Ireland in that respect, and he thought that they ought to read the clauses of enactment in that light, and take the preamble into consideration. It seemed, however, that the clauses of enactment gave the measure a much wider scope, and that instead of being simply an Irish Bill, as the preamble would lead one to suppose, it was a universal Bill as far as the three divisions of the kingdom were concerned. That opened up certain questions of importance as regarded the divisions of the United Kingdom other than Ireland. He conceived that if the clauses of enactment had been in full accordance with the preamble, this would not have been the case. He believed that that was why the Committee wished to have fuller information as to the effect which the Bill would have in throwing open indiscriminately appointments in public hospitals. It seemed that the Legislature had not got sufficiently full information on the matter, and the Council ought to point out that the provisions of the Bill would include all divisions of the United Kingdom, and, threfore, had a more general application than the preamble of the Bill indicated. The Bill would do more than remedy the Irish grievance.

Mr. Macnamara said that he was sorry to hear this subject talked of as a grievance. He did not admit that it was so. Standing there as a representative of the College of Surgeons in Ireland, he would say that that body did not want to persevere in any monopoly. They were perfectly willing to have the widest spirit of free trade carried out, and they did not make any factious opposition to the Bill on that ground. They were quite prepared to have free and open competition, provided there was reciprocity. He was informed that in Scotland there was a monopoly attached to the College of Surgeons at Edinburgh with reference to the Edinburgh Infirmary. In the London hospitals the College of Surgeons of England had more or less the monopoly. If there was to be free trade in Ireland, let there also be reciprocity throughout the kingdom.

The motion for the adoption of the first paragraph was carried.

The adoption of the second paragraph of the same section was moved by Dr. Thomson, and was as follows:—"As regards the further provisions of the Bill (Clause III.), the Committee are of opinion that power should be given to register the degree of Bachelor of Surgery from any university of the United Kingdom entitled to grant the same." Dr. Thomson said that it must be perfectly well known to the members of the Council that the degree of Bachelor of Surgery had already been recognised as one of the qualifications under Schedule (A). There seemed to be no reason why any of the bodies which granted it should be excluded from the privilege of registering it.

The motion was seconded by Mr. Quain, and carried unanimously.

Dr. Thomson then moved the adoption of the next paragraph—"As regards a degree, diploma, or certificate in State medicine or public health, the Committee are of opinion that it should be registered only as an additional qualification by persons whose names are already enrolled on the Medical Register under the Medical Act." He observed that the members of the Council were aware of the great care and attention which had been bestowed by them on the whole subject of a State medicine qualification; and since then, no doubt, the subject had made some progress in the minds of public men. Yet he thought that they were all most unanimous in the view that the qualification in State medicine should be founded upon the groundwork of a medical education; and that no person would be fully qualified to offer advice to the public or to the Government upon that subject unless he was also well informed in the whole of his profession. He hoped that they would be agreed that it was extremely undesirable that any qualification of that nature should be entered upon the Register unless it was in addition to the qualifications of the registered practitioner.

The motion was seconded by Dr. Humphry, and carried.

The next paragraph, which was as follows, was then moved by Dr. Thomson:—"The Committee are further of opinion that the privilege of such registration should not be confined to universities as provided in the Bill, but should also be extended to all degrees, diplomas, and certificates in State medicine or public health granted by any of those bodies included in Schedule (A) of the Medical Act, which may institute the necessary examination."

Dr. Aquilla Smith seconded the motion.

Mr. Simon felt considerable doubt whether it was desirable to create an entirely new power of separate action to be given to a number of bodies.

Dr. Andrew Wood said that what was thought in the Committee was simply this—that if they were to grant to the universities the power of giving these State diplomas individually, while there was no conjointness, they could not see any reason why it should be denied to corporations, who might institute examinations which were quite as good. What was fish to one could not be flesh to the other, and he did not think that the proposal in the Bill was a fair one. In his College it was felt that it was hardly fair for corporations to be treated in that way. He thought that they ought rather to be encouraged to give certificates if they thought fit to do so, and that was the reason why they thought that the same justice should be meted out to them as to the universities.

Dr. Thomson, in reply to a remark of Mr. Simon's, observed that the conferring of the power proposed by the Committee would do nothing to increase the separation of the bodies. There would be simply an addition to the powers which they at present possessed, and it would not be in the slightest degree obstructive to their combining in any way that might be thought desirable hereafter.

Dr. Rolleston said that while the Committee had been anxious to secure free trade, they had forgotten to secure free scope for the action of the Medical Council. He would propose, as a rider to the third paragraph, which had been carried, the addition of the words, "And that the education and examination for these degrees, diplomas, and certificates be under the supervision of the Medical Council in the same way as required for the existing qualifications under the Medical Act."

Mr. Turner said that he had pleasure in seconding that addition. If they admitted the qualification, there ought to be the power to supervise the examination.

Dr. Aquilla Smith thought that it would be a great evil to confer powers such as were proposed in the paragraph on the nineteen bodies who would be concerned. To confer the powers on every licensing body in the kingdom would defeat the object which the Council had in view.

Mr. Macnamara said that probably before the University of Dublin had ever heard of the name of hygiene, the College

of Surgeons of Ireland had instituted a professorship of it; and since 1844 they had been supporting a school of hygiene and teaching the subject in the College. Was he to be told that after they had been bearing the heat and toil of the day they were not to be entitled to give a diploma in State medicine? He hoped that the Council would adopt the paragraph with the addition of the words proposed by Dr. Rolleston.

Dr. Quain said that no one denied the value of the subject and examinations in it; but he had not heard one word to show why the qualification in State medicine should be put on the Register. What would it amount to? Would it be simply an honorary distinction, or would it give its holder a legal preference over other persons on the Register?

Dr. Thomson said that he was willing to accept the rider proposed by Dr. Rolleston.

Dr. Rolleston, in reply to Dr. Quain's remarks, said that the Council would be most seriously wanting in their duty if they abdicated their functions in this matter. He did not think that they ought to back out of it.

Dr. Quain: I do not want you to back out. I say that if you give holders of this degree a legal qualification, such as you give to surgeons, physicians, and others, it would probably be said in the country, "We must not accept those who have not this qualification." Where, therefore, are you to get a sufficient number of people to fill up the various public offices throughout the country? I only want to know whether it is a legal qualification or an honorary one.

Dr. Rolleston said that the Medical Council was responsible to the whole country for persons being properly qualified to undertake the onerous duties which they were called upon to fulfil in public offices.

Dr. Humphry said that Dr. Quain was not at all objecting to place the examination under the supervision of the Medical Council; but what he was saying was that it would be a very difficult thing to find persons who would be qualified for the offices.

Dr. Quain said that he highly approved of the qualification; but he wanted to know what would be the result of putting it on the Register. Would it indicate a special qualification for an office, for which people who did not hold the qualification would not be eligible? There would not be found for many years to come a sufficient number of persons holding the qualification to fill up the various offices.

Dr. Andrew Wood said that this was a discussion about nothing. The qualification in State medicine would not institute a new licence, but it would merely be a new honorary qualification.

Dr. Thomson observed that all that the Committee said was that if this qualification existed it should be registered only as an additional qualification.

Mr. Simon said that this discussion turned on the fact that the word "qualification" was now being used in two senses. Under the Medical Act the word "qualification" had only one meaning. In the present instance it meant nothing more than title; and if it were not too late, he would suggest that the word "title" should be substituted for "qualification," after the word "additional" in the paragraph which had just been passed.

This alteration was agreed to; and the previous paragraph, therefore, stands as follows:—"As regards a degree, diploma, or certificate in State medicine or public health, the Committee are of opinion that it should be registered only as an additional title by persons whose names are already enrolled on the Medical Register under the Medical Act."

The rider suggested by Dr. Rolleston for giving the Council supervision over the examinations for degrees in State medicine was unanimously adopted.

Mr. Simon, in reference to the paragraph last proposed, objected to creating and conferring a new power upon the licensing bodies until a Conjoint Scheme could be agreed upon by them. He would therefore move, as an amendment, that the last paragraph of the second section of the Report be omitted.

Dr. Aquilla Smith seconded the amendment.

Mr. Macnamara said that the necessity for the qualification in State medicine had cropped up in Ireland only within the last year or two. Appointments under the Public Health Act were every day becoming more important, and their importance would still increase. It would be impossible for the boards to procure the services of a sufficient number of gentleman who would have qualified themselves in such a way as to get a licence in State medicine from a university. The University of Dublin, for instance, required persons to take the degree of Bachelor of Arts before it granted a degree in State medicine.

The President remarked that at the University of Cambridge, at this moment, any registered practitioner could obtain the degree in State medicine. It was a very grave matter indeed for the Council to institute new qualifications, especially considering the fact which he had mentioned, that the University of Cambridge laid open the degree in State medicine to any registered practitioner. He felt it his duty to say this in order to call the attention of the Council to the gravity of the position.

Mr. Macnamara said that he had a great respect for Cambridge, but he must say that he regretted that Cambridge should be giving that degree without the degree in Arts. He thought that it was crippling State medicine to confine it altogether to universities. Medical practitioners in Ireland could not avail themselves of the State medicine degree at Cambridge without incurring all the expense of coming from Ireland to Cambridge for the purpose.

Dr. Haldane agreed very much with what had fallen from Mr. Macnamara. He wished to state that the College of Physicians of Edinburgh had already granted a certificate in public health. That was done about a year ago. Regulations were framed, and a board of examiners was very carefully arranged, and two examinations had taken place. Hitherto the number of candidates had been small, and at present only one gentleman had got the qualification. He hoped that the Council would agree to the recommendation of the Committee.

Dr. Andrew Wood said that the Council did not ask to institute a diploma in State medicine, but the Government had sent them a Bill in which it was proposed to confer a diploma in State medicine, and that Bill excluded all bodies except universities. He denied that the universities ought to have a monopoly of the diploma. It was no answer to him to tell him that it was unnecessary that the other bodies should have the power to grant the diploma, because if medical practitioners chose to travel four or five hundred miles to the University of Cambridge they could get it. He hoped that the Council would adopt the recommendation of the Committee, which he believed was founded in justice.

Dr. Humphry said that Cambridge did not want to exercise a monopoly in the matter. It merely wanted to supply public wants, and it felt that it would not do so unless it opened the examination in State medicine to all licensed practitioners.

Mr. Macnamara moved the adjournment of the debate, but the motion was lost.

It was then noticed that it was time for the Council to rise, and the debate was consequently adjourned by virtue of the standing orders.

Seventh Day—Wednesday, May 31.

The Council again resolved itself into committee for the consideration of the remaining portions of the Report on Bills, and proceeded to renew the discussion on the last paragraph of the second section.

Mr. Macnamara again urged his belief that the registration of degrees in State medicine ought not to be confined to universities, as provided in Mr. Gibson's Bill. It would be a very great hardship on young medical men that they should either be called upon to go through an Arts examination in Dublin, or be debarred from taking the degree. Then, again, the necessity of proceeding to Cambridge in order to get the degree without undergoing an examination in Arts would practically inflict upon them a fine of £8 or £10 in the form of travelling expenses. He could not see why there should be the slightest hesitation in the mind of the Committee to recommend the Government to adopt the expression in the paragraph. The proposal of the Committee would secure ample protection for the proper conferring of the degrees. If they were issued in a satisfactory manner, he could not see why all the licensing bodies should not be entitled to give them. He claimed the privilege on behalf of his College—the College of Surgeons in Ireland—which, as he stated yesterday, was probably the first body that ever instituted lectures on hygiene.

Dr. Pitman said that he believed that the matter had not been looked at in all the aspects in which it might be regarded. The words of the Bill were—"All persons who have obtained

from any university of the United Kingdom, legally authorised to confer the same, the degree of bachelor in surgery, or a diploma in State medicine, shall be permitted, and are hereby empowered, to register the said degree and diploma." Here two distinct qualifications were mentioned. The recommendations of the Council had been based, he believed, upon some misapprehension that the degree and the diploma both related to State medicine. But the word "degree" applied in that clause of the Bill to a degree in surgery, and the word "diploma" applied to a diploma in State medicine. Both a degree and a diploma were qualifications conferring a privilege; and he thought that the word "diploma" really meant, legally, that it conferred some privilege upon the owner. The Council had classed together degree, diploma, and certificate, as if they were of the same and equal value; and they had already decided that the degree, diploma, or certificate in State medicine or public health ought to be registered only as an additional title. In the resolution the Committee expressed a belief that it was not a qualification, but a title. Well, if it was to be registered as a title, where was it to be registered? In the Medical Act, Schedule (D), it had been expunged, and there was no place for the title. The degree had at first been regarded rather in the light of a qualification to practise something; but it really was not so, and it had recently been pronounced to be a title. If it was only a title, and was to be registered, there must be a column for the title, and Schedule (D), which was repealed, must be restored to the Medical Act. But if titles were admitted, the Council would be opening the door to the title of dentists, who, he believed, had already applied for registration. The Obstetrical Society and other bodies granted fellowships, and they would all ask to be registered under Schedule (D). He believed that the door would be opened to a great many applications which would be very undesirable. Then, as regarded the granting of degrees by the different universities and corporations, he regretted to say that he was not himself sufficiently informed as to what the powers of those bodies were to grant degrees or diplomas in State medicine. He supposed that there was no question that any one could grant a certificate in State medicine. Any member of that Council might grant a certificate, because that would be only an expression of his belief that the person who held it had a knowledge of State medicine. A certificate was, in fact, a testimonial, which nowadays was a very common thing, and of very little value. But the Council were asked to register the certificate; and he doubted whether a person whose certificate was registered would not stand in a very different position from those who were not so registered. Among those holding public appointments there would be some persons who did not possess the certificate, and others who did; and unless there was some law that all persons should be equally qualified who were registered under the Act, or who held public appointments, there would be some confusion in regard to the view in which those persons were to be held by the public. He thought, therefore, that they must consider the clause as introducing great confusion as to the value of the different degrees, diplomas, and certificates, and as to whether it was desirable to introduce the registration of titles, which hitherto had never taken place. The clause in Mr. Gibson's Bill simply referred to those who possessed, legally, a diploma in State medicine. If every University under its charter could confer such a degree, then, under the Bill, that degree might be entered on the Register; but it would become a qualification to practise, and would not be simply a title. But Clause 15 of the Medical Act said that "every person now possessed, and every person hereafter becoming possessed, of any one or more of the qualifications described in the Schedule (A) to this Act, shall, on payment of a fee not exceeding £2, in respect of qualifications obtained before the first day of January, 1859, and not exceeding £5 in respect of qualifications obtained on or after that day, be entitled to be registered on producing to the Registrar of the Branch Council for England, Scotland, or Ireland the document conferring or evidencing the qualification, or each of the qualifications, in respect whereof he seeks to be so registered, or upon transmitting by post to such Registrar information of his name and address, and evidence of the qualification or qualifications in respect whereof he seeks to be registered, and of the time or times at which the same was or were respectively obtained." He believed that they would be introducing confusion if they advised the Lord President to register a State medicine qualification at all. Very few bodies could confer such a degree,—none could confer such a diploma; but every body could grant a certificate, but such certificate would be worth nothing more than a testimonial.

Dr. Thomson wished to call the attention of the Council to what had already passed on this subject in previous years, and to what, as far as he knew, was their only distinct declaration on it. In 1869 the Council, after a very considerable discussion, resolved—"That in any amended Medical Bill which may be prepared for Parliament by the Council, it is desirable that the requisite permissive clauses for registration of a qualification in State medicine be inserted, in addition to any of the qualifications registered under the Medical Act." The Committee on Bills had been following out the principle of introducing no new matter, but adopting the former decisions of the Council, and it was in that way that they had made the present recommendations with respect to Mr. Gibson's Bill. Upon the suggestion of Dr. Quain, the Council had substituted the word "title" for "qualification" in the last paragraph but one of the Report, and at the proper time he (Dr. Thomson) should feel it incumbent upon him to ask the Council to reconsider those words, because the alteration introduced a new element into the discussion. If they substituted the word "title" for "qualification," they did something inconsistent with what had previously been adopted by the Council. He thought he saw a way in which they might, at all events, evade the difficulty of the wording of the clause. Instead of retaining the words "registered only as an additional qualification" they might make the paragraph read thus—"As regards a degree, diploma, or certificate in State medicine or public health, the Committee are of opinion that it should be registered only *in addition to one or more of the qualifications* which at present entitle their holders to registration under the Medical Act." By thus altering the words they would avoid the difficulty which occurred in consequence of the adoption of words which expressed something more than some members of the Council intended to express in the resolution.

Mr. Turner said that it seemed to him that they had been discussing a matter which was not before them—namely, the question of title *versus* qualification, which was disposed of yesterday. If the question was to be revived it must be revived when the whole Report came up to be adopted by the Council. There were now some five or six bodies—universities and royal colleges—that had taken steps, or were about to take steps, to introduce qualifications in State medicine, and the question was whether the Council were to recommend that all those bodies should have their degrees, diplomas, or certificates put on the Register, or whether the registration should be confined to universities. A most important objection had been raised by Mr. Simon and others, and that was that the registration of the degrees, diplomas, or certificates of all the bodies would introduce a large number of new qualifications which the Medical Council would have to register, and the examinations which it would have to inspect, and that it would throw a great amount of additional work on the Council, whose labours, some thought, were already sufficiently onerous. Then it was said that there should be a combination of the bodies, or conjoint boards, for conferring diplomas in public health, and that the individual bodies should not give them. He looked upon that conjoint action as something which was in a distant future. The question of the combination or conjunction of the various bodies for the ordinary qualification in medicine had been for many years before the Council and before the bodies, and it had not yet taken place in any one division of the United Kingdom. The Council had before it the question of doing justice, if he might so say, to those bodies that had already gone forward for the establishment of examinations and qualifications in state medicine. It might be advisable to make some modification of the paragraph, and recommend that all bodies that had already instituted examinations, or might institute them in the course of the next twelve months, should have their qualifications registered.

Dr. Rolleston said that the whole issue of conjoint boards had been raised upon this paragraph, while it was entirely oblique to it. (Hear, hear.) Notice of a very clear and distinct motion on conjoint boards had been given by Sir William Gull, and the Council could take the issue as to conjoint boards upon that motion. As to the question now under discussion, he held that the protection of universities would be an injustice to all the corporations, and he would have nothing to do with it. Protection always did harm to everybody, and most of all to those who were protected. On the other hand,

there would be a great absurdity in multiplying titles and licences, and the Council had to weigh the injustice against the absurdity. It would bring the discussion to an issue if Dr. Thomson would insert the words "the Committee are of opinion that the degree should be"—not "registered" but—"*conferred* only on those persons whose names are already upon the Medical Register." In the meantime he hoped that they would accept the final clause of the Report.

Dr. Thomson believed that all the bodies would be ready to accept the limitation of the degree in State medicine to those persons who already held a qualification in medicine and surgery.

Dr. Quain asked whether Dr. Rolleston wanted the degree upon the Register.

Dr. Rolleston: No, I do not, because I do not think it will be important.

Dr. Andrew Wood spoke in support of the paragraph. He said that, if Mr. Simon's amendment was carried, Parliament would establish a qualification, which qualification the corporate bodies would be debarred from granting.

Sir Dominic Corrigan said that the real subject at issue had been avoided by the speakers. The question, as it stood at present, was simply a battle between the universities and the bodies on the Register. The Act of 1858 had declared that the public bodies whose names were inserted as bodies recognised by the Act should be all equal in their privileges, and that physicians, surgeons, apothecaries, bachelors of medicine, and masters in surgery, should be all entitled to be on the Register. The Act of 1858 had declared that their privileges were all equal, and that their rights to public appointments were all equal, so that men going before public bodies to seek election to appointments were at liberty to produce any qualification on the Register, and one man was equally eligible with another. What was implied by the limitation of registration of the degree in State medicine to the universities? It was an attempt on the part of the universities to establish a privilege under which persons obtaining the degree from a university could be at liberty to present it to a navy board, an army board, a board of guardians, or a hospital board, and say, "I have a qualification beyond what the others have, for I have got it from a university; and, having got it, I claim a privilege, or a prejudice, or a prestige in favour of that qualification." This was an attempt to take the privilege from all the licensing bodies, which were declared equal, and to institute a particular qualification which was only to be conferred by a university. He (Sir Dominic) asserted that this was an overturning of the whole of the present Medical Act, which declared the equality of all the bodies mentioned in the schedule. He hoped that he could speak with impartial feelings on this subject, for he happened to be a representative of the Queen's University, and if the Bill was passed restricting the registration to universities, young men who wished to obtain the one thousand public appointments in Ireland would be enticed to enter the Queen's University and the University of Dublin, and to pass by the College of Physicians and the College of Surgeons as inferior bodies. He did not think that it would be fair for him, as the representative of Queen's University, to join in the attempt at monopoly which was made by the University of Dublin. (Hear, hear.)

Dr. Quain said that it seemed that they were going to have the "battle of the gauges" over again, which they fought so much in the early days of this Council—corporations against universities. (No.) He would ask whether it was worth while to enter into that contest. The question was whether a qualification in State medicine should be on the Register; and he wished that they could avoid the battle of the institutions by saying that the qualification ought not to be registered at all.

Mr. Simon said that he had been convinced by the speech of Sir Dominic Corrigan of the inconveniences that would arise from his pressing the motion. (Hear, hear.) He need hardly say that his intention was not to draw an invidious distinction between universities and corporations, but he had a feeling—which was shared by a large number of persons in the Council—that they ought not to extend qualifications unnecessarily. He thought that it would be quite enough that one authority should act in each division of the United Kingdom, and the proposal that Parliament should create nineteen new qualifications was to him exceedingly shocking. The discussion had been of great value, and he had heard statements to which he attached great importance. He would withdraw his opposition to the paragraph, subject to this remark—that, in proportion as he saw that the distinction between universities and corporations could not be maintained in this matter, he was convinced that the passing of the former resolution was a mistake. He thought that the Council must of necessity be of opinion that, if it could not do otherwise than create nineteen new qualifications, it could not treat qualifications in State medicine as registrable at all. And he trusted, when the Report came up for confirmation by the Council, some older member of the Council than himself might be found to move in that sense.

The amendment was withdrawn. The final paragraph of the second section was then carried unanimously.

Dr. Thomson proceed to read that portion of the Report—namely, Section 3—which related to the Bill about to be introduced into Parliament by Mr. Russell Gurney. The section was as follows:—

> The Bill to be introduced by Mr. Russell Gurney proposes to extend the powers of the bodies entitled under the Medical Act to grant qualifications for registration to the granting of any qualification for registration granted by such body to all persons without distinction of sex. The Committee, desiring to limit their recommendation to the expression of opinions which have already been adopted by the Council, would recommend that it be stated in reply to the Lord President of the Privy Council, as the opinion of the Medical Council, that any course of legislation which would interfere with the free action of the universities and corporations mentioned in Schedule (A), in respect of the medical education, examination, and licensing of women, is undesirable.
>
> Should it, however, appear to the Government and the Legislature expedient that women who desire to obtain a legal status as medical practitioners in this country should not be debarred from obtaining that status, the Committee would recommend to the Council to suggest that sufficient provision would be made to enable women to obtain a "legal status as medical practitioners in this country" if an Act of Parliament were passed which should enable the Medical Council to recognise such examination or examinations as the Medical Council may from time to time deem sufficient for the purpose of granting admission of women to the Medical Register, under the title of "licensed practitioners of medicine"; and that the education and examinations for these licences should be under the supervision of the Medical Council, in the same way as is required for the other licences of this country.

The President, in reply to a question put by Dr. Thomson, stated that leave had been given to Mr. Russell Gurney to introduce the Bill, and he (the President) had obtained some copies of it. He would, therefore, on his own responsibility, allow the Bill to be laid before the Council.

On the motion of Dr. Thomson, seconded by Dr. Aquilla Smith, it was resolved that Mr. Russell Gurney's Bill be entered on the Minutes. The Bill in question is the following:—

A Bill to remove Restrictions on the Granting of Qualifications for Registration under the Medical Act on the ground of Sex.

Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in the present Parliament assembled, and by the authority of the same:

1. The powers of every body entitled under the Medical Act to grant qualifications for registration shall extend to the granting of any qualification for registration granted by such body to all persons without distinction of sex.
2. This Act shall be taken to be incorporated with the Medical Act, as amended by the Act of the twenty-second year of her Majesty, chapter twenty-one; and the Medical Act as so amended, and any other Act amending the Medical Act, shall be construed and have effect accordingly.

Dr. Thomson said that the present section of the Report appeared to include a little more difficulty, perhaps, than they had encountered in connexion with the previous Bills; but he would fain hope that the discussion might not be prolonged on that account to even so great an extent as that on the previous sections of the Report. He believed that in doing him the honour to make him chairman of the Committee the Council had confidence that he would not suggest topics that were likely to lead to renewed or fresh discussions. Their object ought to be to avoid, if possible, the suggestion of new topics for discussion, as well as the revival of matters upon which the Council might be held to have expressed their opinion already. The Committee had felt that the subject of the admission of women into the profession was so amply discussed in all its merits last year that nothing new could be brought forward on the subject, and that many circumstances rendered it undesirable that the discussion should be repeated. The question raised on the Bill related to the manner in which women were to be admitted to the profession, supposing the admission took place at all. The provisions of the Bill seemed to call for some reference to the decisions of the Council last year, and on this account the statement of the Committee amounted very much to a reiteration of several of the opinions at which the Council arrived upon that occasion. For the present he would confine himself to moving the first portion of the section, down to the word "undesirable."

Dr. Rolleston proposed a modification in the wording, as follows:—"That Mr. Russell Gurney's Bill, which leaves it open to any one of the licensing bodies to establish an examination for women, may be safely recommended by the General Medical Council for adoption by the Government and the Legislature, if it be distinctly provided in the Bill that they shall not be compelled to do so, nor in the cases of the universities to grant them degrees." This would at once raise the whole question of what was the meaning of the second clause of the Bill? He would read an interpretation of the first clause, to which he apprehended the Council would not demur:—"The Right Hon. Russell Gurney is prepared to bring in a Bill in which it is proposed that the existing licensing bodies shall be enabled, though not required, to admit persons to examination without regard to sex." He quoted that interpretation from the President's address, and he had not the slightest doubt that it was the true one. It left it open to any one of the licensing bodies to establish an examination for women, or to abstain from so doing.

The President said that he wished it to be distinctly understood that the observation which he made in his opening address, as to the meaning of Mr. Russell Gurney's Bill, was simply his own interpretation, and not a legal opinion. He had been entirely misled if the meaning he had assigned was not the true one, and if the Bill did not leave it optional to the bodies to establish the examination. He understood it to be an enabling Bill, and not a compulsory one.

Dr. Rolleston said that it was the position of one of the universities that it could not now grant to persons, not graduates in medicine, licences which would entitle the licensees to be placed on the Medical Register as licentiates in medicine of the university. Mr. Russell Gurney's Bill would enable the university to say that it would be glad to take out power for doing that, but it would not compel the university to do it if it did not choose.

Mr. Turner: Would that be a degree or a licence?

Dr. Rolleston said that it would certainly be a licence. He had nothing to say upon the merits of the case in addition to what was said last year; but he should just like to remind the Council how the thing stood. What they said last year was that they were not prepared to say that women ought to be excluded from the profession. He now wanted the Council to say that if one of the bodies in Schedule (A) should see their way to laying down, not the negative, but the positive, the Council would allow them to do it. The bodies would simply take the responsibility upon themselves. If they chose to do it, he would say, "Well and good." Others might say, "Well and evil"; but, anyhow, the Council would not have the responsibility if they simply allowed the bodies to admit women of their own accord. The President, in his address, had shown that the number of medical men was diminishing in this rapidly increasing population. Seeing that one-half of her Majesty's subjects were females, and that the other half, the males, did not yield a sufficient number of doctors, the obvious way of supplying the deficiency would be to admit women to the profession. That was the only new point in connexion with the subject that had come to his knowledge since last year. He was quite clear that the burden of proof was upon those who maintained the negative of the proposition that women ought to be allowed to practise. The business of the Medical Council could be stated under one or two heads. They wanted to arrest the progress of disease, to arrest the progress of vice, to promote science, and to provide careers. Fifty per cent. of the population of the United Kingdom was females, and it was a very pressing need that the Council should allow some of them who wanted careers provided for them to look to the practice of medicine as a means of livelihood. The duties and responsibilities of the family, in the case of a woman, generally ended at a period of life prior to that at which most of the members of the Council had arrived. There were many women of five-and-forty who were as fit for good work of one particular kind as many of the persons around the council-table, and he held that the Council had no right to debar them from a medical career. Some of the Council hoped to go on doctoring for a considerable period, though they had passed the rubicon of five-and-forty, and what they hoped for themselves they ought to concede to others.

Mr. Lister seconded the amendment on the ground of its pointing out that it must be distinctly provided in the Bill that the licensing bodies should not be compelled to establish an examination for women, and that the Bill was to be a permissive one. Whether or not it was a desirable thing that the ranks of the medical profession should be recruited from the female sex was not the question before them. He confessed that his own view was that neither physically nor morally were women fitted for the study or the practice of medicine. It appeared, however, that legislation on the subject would take place in order to admit women if they underwent the requisite examination. There were three means by which the admission of women into the profession might be effected. First, the existing licensing bodies might be compelled to admit them; or, secondly, they might have the option given to them to admit them if they chose; or, thirdly, a separate licensing body might be established for the purpose of examining and licensing women. As to the last method, it was a course which ought not to be taken unless it was proved to be a necessity. If the existing boards were willing to establish an examination for women, surely it would be more simple that they should be admitted by that means than that a new board should be instituted for the purpose. A new board would have to be inspected, and the Council had work enough in the inspection of the examinations of the existing bodies.

Dr. Thomson said that it seemed desirable that there should not be a new board, and that the same machinery which existed for conferring licences on men should be made use of, if possible, for the licensing of women. At the same time, they must not shut their eyes to the fact that even if the Bill under consideration should be simply permissive, and not compulsory, those bodies which might not adopt a system of examination and licensing for women would be constantly exposed to applications that they should do so, and the question could not be considered as settled until either the whole of the bodies should be so arranged, or some general measure was provided for admitting women. He felt somewhat divided in his opinion on the subject. Immediately after the meeting of the Committee, he received a very able communication from Mr. John Marshall upon the subject of the institution of a special board, and that communication went some way in convincing him that perhaps the most direct method of arriving at the object in view would be the institution of a special board. At the same time, he quite acknowledged that there were objections to that course. He had not a very great objection to the form in which Dr. Rolleston had made his amendment.

Mr. Turner said that what had fallen from Dr. Thomson ought not to be lost sight of by the Council in considering this question, for they had to consider not only those bodies which might be willing to institute examinations, but those which might not be willing. If a permissive Bill was passed by Parliament, those bodies which were unwilling to establish examinations for women would have constant petitions presented to them asking them to do so, and this would naturally lead to discussion and dispeace. The matter ought to be considered in its bearing both on the willing and on the unwilling bodies.

Dr. Aquilla Smith entirely concurred with the observations of Mr. Lister on the question of instituting a new board for the examination of women. If there was a separate board for women, a question might arise as to the degree of knowledge required from them. It would be safer to have the same board both for men and women.

Dr. Humphry thought that it would be best to adopt the paragraph as it had been proposed by Dr. Thomson. The amendment would only enable the various colleges and universities to give to women the diplomas and degrees which they already granted to men. It would not make a new qualification for women. In order that Dr. Rolleston's object should be attained, some new licence must be granted for women.

Mr. Lister said that it might be desirable to remit the Report and the amendment to the Committee, in order that they might say in what form the licence should come. All that he intended to second was that the licence should be given, and the examinations conducted by existing bodies, if they wished to do so. He did not contemplate that women should have exactly the same title. He thought that that was a point of great importance.

Dr. Andrew Wood moved the adjournment of the debate. He did not think it wise to inflict a long speech on the Council after what happened last year. After the thorough beating which his side got last year, it might be supposed that they would succumb and go in with the majority of the Council. Considering the way in which the Report was being taken to pieces, he asked whether it was fair that the Council should

be called upon on the instant to pronounce an opinion without having the amendment before them. Their decision might possibly end in very serious consequences to all the licensing bodies. He had not changed his opinion upon the question of the admission of women to the profession. He told the Council last year that he thought it would be bad for women and good for nobody; and when he went home he found that he was not looked upon with such disgust by the women as Dr. Rolleston might suppose he would have been. On the contrary, wherever he met with ladies they came to him and congratulated him on the sturdy attempt that he made to protect them from female practitioners in medicine. He had no hesitation in saying that the resolution passed by the Council last year was calculated to give a great impulse to the woman's question. There were loud pæans from all quarters of that minority of the community which was in favour of the admission of women. It was said, "Look at the Medical Council. They have passed resolutions which clearly prove that the distinguished men sitting round that board are in favour of the admission of women to the profession." But was it the case that the majority were in favour of it? Was it not the case that many of them said that they yielded to the inevitable, and that they were not convinced that women ought to be doctors, and that they merely voted because if they did not yield then they would be obliged to yield afterwards, and perhaps have to give more than they wanted to give? But he thought that the question of woman's rights had rather gone back during the year. There was a much larger majority against them in Parliament this year than last. If the Council consented to let in the thin end of the wedge, as was now proposed, there would be no end of turmoil. They had had enough of it in Edinburgh, and it would take place all through the country. He held, therefore, that it was necessary for them to pause. Mr. Russell Gurney's Bill was called an enabling Bill. But it was not an enabling Bill: it was an empowering Bill. The Royal College of Surgeons had recently had a legal opinion to the effect that if they had power to grant certain certificates to women, they would be obliged to grant them if they were asked for. If Mr. Russell Gurney's Bill was passed, the women would knock at the doors of all the licensing bodies in the country and ask for licences, and if they were refused they would apply to the law courts for a *mandamus*. Dr. Rolleston had remarked on the fact that the number of medical men was diminishing. He (Dr. Wood) would tell him why it was. It was because medical services were not appreciated as they ought to be, and medical men were not paid as much as they deserved. He was altogether opposed to the admission of women, and he objected to decide on the instant upon the resolution and the amendment. He should like an opportunity of consulting their law adviser on the subject, for he objected to taking any step which would allow a Bill to pass which was not sufficiently guarded against licensing bodies being compelled to licence women. Besides, if a Bill was passed, and some of the bodies admitted ladies, there would be the utmost odium cast upon all the other bodies which refused to do so. He would move that as the Report of the Committee had been taken to pieces, and they had not been able to see the propositions in print, the consideration be deferred for the present.

Sir Dominic Corrigan said that if the amendment was passed it would make nonsense of the whole of the recommendations in the third section of the Report. He differed altogether from Dr. Wood's opinion that women ought not to be admitted, and he was surprised that a man of Dr. Wood's intellect and constitution should be afraid of women. He did not see why a woman, if she thought fit to pass the examination, should not do so. He would not debar her from any pursuit in life for which she might feel herself fitted. There were very many pursuits which women were not prevented by any law from entering, and yet they did not enter them. He believed that there was no law against a woman acting as the driver of an omnibus; but he was not aware that women ever entered upon that occupation. If women entered the medical profession they would find out that they were not fitted for it, and nobody would spend their money on them. No consideration would ever induce him to meet a woman in consultation. When he made that statement last year he was said to be inconsistent, because he had voted for the degree in his own university; but he contended that that was not the case. There were a thousand instances of daily occurrence as to which he could not talk to a woman without losing respect for her and offending his own feelings.

Mr. Quain called attention to the fact that the whole of the paragraph in the Report was drawn up in accordance with the resolutions of last year, though, of course, that did not preclude the Council from coming to an entirely different conclusion now.

Dr. Thomson said that he felt quite incompetent to judge of the whole import of Dr. Rolleston's amendment; and he felt some doubt as to whether the last paragraphs of the third section of the Report really furnished a sufficient answer to the Government on the subject. He thought that the most prudent course for the Council would be to recommit the Bill to the Committee.

Dr. Rolleston quite acquiesced in the desirability of taking more time to consider the matter, though he thought that the thing had been quite sufficiently threshed out previously.

A vote was then taken on the amendment. It was supported by only four members, and negatived by a large majority.

Dr. Andrew Wood then moved—"That the third section of the Report of the Committee on Bills be remitted to the Committee; and that the Committee be empowered to consult Mr. Ouvry, the solicitor, as to the legal bearing of the first clause in Mr. Russell Gurney's Bill, and generally upon the question."

The motion was seconded by Mr. Turner, and carried.

On the motion of Mr. Teale, it was resolved that Dr. Storrar, Mr. Turner, and Mr. Lister be added to the Committee.

Mr. Teale said that as he was not a member of the Council last year, he would like to take that opportunity of saying that he felt that they were not justfied, as a public body, in perpetuating anything which was a bar to the admission of women to the profession. He thought that they were right in doing what they could to take away existing impediments. At the same time, he wished to say that he fully concurred with those who did not think that women were suitable to the profession.

The fourth and fifth sections of the Report on Parliamentary Bills were also remitted to the Committee.

The sixth section, which was as follows, was unanimously agreed to:—"With respect to the communications from graduates holding foreign degrees, suggesting that these degrees should be admitted to the Medical Register, the Committee recommend that in acknowledging these communications the Council should express their opinion that no qualifications should be entered in the Register, over the education and examinations for which the Council cannot exercise the same supervision and control as they do under Sections xviii. and xx. of the Medical Act, in regard to the qualifications granted by the British licensing bodies mentioned in Schedule (A) to that Act."

The Council resumed.

The President made a communication with respect to the certificates in lunacy concerning which a correspondence was laid before the Council on Friday, May 26, as reported in our impression of last week. He said: The other day the Council desired the President to enter into communication on the whole case with the Secretary of State for the Home Department. I took an opportunity of looking through all the documents in our possession which were available as the whole history of the matter. If you refer to vol. vi, page 310, you will get the gist of the whole question before you. As I am sure that the matter is fully understood by the Council, I need not read these documents. The correspondence is similar in purport to that printed in vol. vi., page 310. Mr. Forbes, Secretary to the General Board of Lunacy in Scotland, writes (July 29, 1867) that Mr. Secretary Hardy had laid a case before the law officers of the Crown, and they are of opinion that, upon the true construction of the statutes, certificates signed by medical men in Scotland do not constitute a valid authority for the detention of lunatic patients in England and Wales, and *vice versâ*. In July, 1868, the then President of the Medical Council (Sir George Burrows) drew the attention of the Home Secretary to the subject; and on August 10, 1868, Mr. Liddell replied that Mr. Secretary Hardy, having consulted the Lunacy Commission, was unable to undertake further legislation for the purpose of removing the anomaly. In 1869 there was a correspondence between the then President of the Medical Council (Dr. Paget) and the Lunacy Boards of Scotland and Ireland, and about the same time the matter was laid before

the Lord President of the Privy Council (the Marquis of Ripon). The affair seems not to have been pursued further. Under all these circumstances, it appeared to be desirable to see the Chairman of the Lunacy Commissioners on the real merits of the case. He (the Earl of Shaftesbury) having carefully considered the subject, stated that he did not think the matter to be in exactly the same position as it had been when it was previously discussed; that there would probably now be no objection to consider it in connexion with other subjects proper for a Bill having relation to the Lunacy Acts; that it should, after conference with the other Lunacy Commissioners, be so considered; and he hoped that it might be possible that an evil, the existence of which he fully felt, might be remedied next session, if a Lunacy Act could then be brought in. I further promised his Lordship a copy of all the papers we have on the question; and, subject to your wishes, I purpose, in conjunction with Mr. Ouvry, also to prepare a copy of the Bill for transmission to the Secretary of State for the Home Department.

Dr. Quain presented the following Report of the Committee which had been appointed to consider the duties and emoluments of the Registrar.

It was resolved that the Report be received, and the Council then resolved itself into committee, and considered the Report paragraph by paragraph. After a slight discussion, the Report was adopted, and ordered for entry on the Minutes:—

First, as to the duties of the Registrar—

I. It shall be the duty of the Registrar of the General Medical Council to keep his registers correct, in accordance with the provisions of the Medical Act, and the standing orders of the General Council.

II. The Registrar shall verify each page of his register with his signature, and every alteration, addition, or erasure shall be verified with his initials.

III. The Registrar shall fulfil all the duties now required, or which may hereafter be required of him, by the standing orders of the General Council.

IV. The Registrar shall be present at every meeting of the General Council and of the Branch Council for England, and at other meetings when his presence is required, and shall take minutes of the proceedings of such meetings.

V. The Registrar, as Secretary, shall conduct and have charge of the correspondence on the part of the General Council and the Branch Council for England, and shall issue all requisite notices.

VI. The Registrar shall not retain in his hands more than £100 of the funds of the Branch Council, but lodge all moneys, as they accumulate, in the Bank of England, to the credit of the Branch Council for England.

VII. The Registrar shall, in addition to one of the Treasurers, sign all cheques on behalf of the General Council or Branch Council for England.

VIII. The Registrar shall have the general control of the management of the office, and authority over the clerks and servants.

IX. The Registrar shall attend at the office from twelve to four o'clock daily, and at other times when necessary.

X. The Registrar shall not be absent from his duties, unless by permission of the President, or of the Treasurers.

Secondly, as to the emoluments of the Registrar.

XI. That the salary of the Registrar shall be £500 per anuum.

Dr. Andrew Wood gave notice of a motion on the subject of appointing a successor to Dr. Hawkins.

The Report of the Finance Committee was presented by Dr. Quain, and received.

The Council then adjourned.

Eighth Day—Thursday, June 1.

Dr. Andrew Wood moved—"That it be delegated to the Executive Committee to elect, in October, the Registrar of the General Council in room of Dr. Hawkins, who resigns his office on November 25, and that the vacancy in the office be advertised." He said that if the Council had to meet purposely to elect a Registrar, they would incur an expense of two or three hundred pounds. There was nothing unconstitutional in delegating the duty to the Executive Committee. They had power to delegate everything except the duty of representing a recalcitrant body to the Privy Council.

The motion was seconded by Mr. Simon, and carried unanimously.

Dr. Quain then read the following Report of the Finance Committee, and moved its adoption:—

The Finance Committee report that the income of the Council during the year 1875 has been £5877 19s. 8d.—a sum less by £126s 6s. 6d. than the income of the preceding year. The expenditure of the Council during the same period has been £6698 19s. 6d. The expenditure of the year has therefore exceeded the income by £820 19s. 10d. The principal items under which an increase of expenditure has taken place, as compared with that of the preceding year, are, on visitations of examinations, £261 9s.; on printing, £405 1s. 6d.; on house expenses, £111 3s. 7d. During the first four of the last six years the income exceeded the expenditure by an average amount of £1073; whilst during the past two years, 1874 and 1875, the expenditure exceeded the income by the amounts in each year respectively of £877 and £817, the income during these years being rather above than below the average. During the first of these two years—viz., 1874—a great portion of the excess of expenditure is due to the outlay for reprinting the Pharmacopœia, which cost £688 18s. 6d., and for which the Council has been already reimbursed. The remainder of the excess is to be accounted for by an increased outlay for general printing and house expenses. The excess of expenditure of the last year, 1875, is to be accounted for by the amount of fees paid to visitors of examinations, which exceeds the amount paid in the preceding year by the sum of £261 7s. 2d.; by the cost of general printing, which exceeds that of the previous year by the sum of £405 1s. 6d.; and lastly, by expenses connected with the office and house, which exceed those of the preceding year by £111 3s. 3d.

The Committee feel that the Council will agree with them in thinking that the expenditure of the Council should not be allowed to continue in excess of its income. To some extent this evil will be remedied, should the Council determine to extend the visitation of examinations over a series of years, by which the annual cost will be diminished. No very material reduction can be made in house expenses. The other item of increased expenditure is that for priuting, and as during the last year one half of the whole excess of expenditure—viz., £405 1s. 6d., out of £802 0s. 1d.—is due to this alone, the Committee would recommend that for the future a stricter economy should be exercised in this department of the expenditure.

Dr. Storrar seconded the motion. He exhorted the Business Committee to consider some means by which they might diminish the expenditure on printing.

Dr. Andrew Wood said that he did not think there was anything in the Finance Report which ought to make them alarmed. When they instituted the new system of visitation of examinations, which was very costly, they anticipated that they would have to exceed their income. He had a distinct recollection of that anticipation, and the tables accompanying the Finance Report would show what a large amount had been expended on visitations. In 1873 they paid under that head £598; in 1874, £456; and in 1875, no less than £718. Besides this, a large part of the printing related to the visitations of examinations. The expense of visitations, and of the printing in connexion with them, would account for a large amount of the expenditure. Hitherto that had been an exceptional expenditure, and he did not think that in future the Council would visit examinations wholesale as they had hitherto done. They would rather, if he might use the expression, visit them retail, by taking only a few bodies each year. Another cause of expenditure had been the migration of the Council to the very much improved accommodation which they had in their present premises. In 1873 the house expenses amounted to only £40, and in the present house they amounted to £350 last year. He did not suppose that in any future year the house expenses would be very much less than that.

Dr. Aquilla Smith, as a member of the Finance Committee, stated that before the Council moved to the new house it was calculated that the increased expenditure would be £300 a year.

The motion for the adoption of the Report was carried unanimously.

The consideration of the Report of the Committee on Lord Carnarvon's Bill on the subject of experiments on animals was resumed.

Mr. Lister, in moving the adoption of the amended Report, remarked that there was one clause in it which he regarded, and, he believed, the other members of the Council would regard, as a blot; and he would ask permission to make an addition to one of the clauses with a view to get rid of that blot.

Mr. Simon rose to order. He said that it was distinctly ruled, the last time the Report was before them, that they were now to take it *en bloc*, and simply reject or accept it.

The President, having been appealed to, said that it was certainly the understanding when the Report was last before them, that the Committee to whom it was referred back was simply to correct clerical errors, and that when the document was next presented, it should be not for discussion, but simply for acceptance or otherwise.

Mr. Simon seconded the adoption of the Report.

Sir Dominic Corrigan said that he wished to make a few observations on the subject of the Report. He should not have troubled the Council with any remarks had it not been for his reading an article in the *Saturday Review* of May 28, which was a very fair exposition of the Bill, and which contained this remarkable sentence:—"It is well that people should face the fact that the kind of cruelty dealt with in the present Bill is only a small part of a far larger evil, and that the logic of the case requires uniform treatment all round." He did not think that in the Report that was going forward that material point was noticed. The Report was very good as far as it went; but he quite agreed with the observation of the reviewer, that it was not just to take up this subject of cruelty to animals, and propose to inflict, merely on members of the profession, penalties which would add odium to them. The laws which applied to the profession, and inflicted odium

and penalties on them, should be considered as dealing with only a part of a larger evil which extended throughout society. With a view of bringing this fact prominently forward, he had drawn up a sentence which he proposed to add to the Report.

Mr. Lister rose to order: If he was prohibited from altering or amending any clause, surely it was hardly competent to any other member of the Council to do the same.

Sir Dominic Corrigan said that he thought that it was permissible to him to support the Report, if it was altered as he desired. The sentence which he proposed to add was, "In fine, the General Medical Council submit that if further legislation on cruelty to animals be deemed advisable, it would be inconsistent and unjust to select the medical profession as alone meriting the infliction of penal enactments; but that the whole subject should be treated in regard to its relation to society at large."

The President held that the amendment was not in order.

Sir Dominic Corrigan said that he only rose to state his reasons for not consenting to the adoption of the Report as it at present stood, and he withheld his assent because there was not in it a sentence of the sort which he suggested. There had been a discussion as to what an animal was, and he could confuse that subject a little more by saying that it was very difficult to decide what was a living animal. He had seen a medical man, engaged in experiments on fishes, cut off the head of a conger eel, and then split the head down between the two eyes; and then he had seen half the head, which was so cut off, bite at a bone. He had seen this over and over again. Suppose a policeman, under the proposed Act, was authorised to go and see whether cruelty was being carried on. He would go into the boat to arrest the medical man who was making an experiment on circulation, and perhaps half of the head of the conger eel would spring at him and bite him in the thumb. The policeman would arrest the medical man. The defence would be—"The animal was dead. I took the conger eel and cut off his head, and split his head in two." Then the policeman would say, "He was alive, your worship; look at my thumb!" And he would show his thumb which had been bitten through by half the head of the conger eel. Who was to decide between the two? This was one of those contemptible issues which would arise out of the Bill. There were two ways of dealing with Bills of this sort. One was to answer the arguments, as the Council had done in this case; and the other way—and one which he thought was very powerful—was to return blow for blow. If they attempted to meet the Bill with arguments, the arguments must be such as were capable of being understood by ignorant persons, amongst whom he included nearly all the public outside the profession. When medical men were selected and held up to odium, and charged with cruelty in scientific experiments, the best thing to do was to return blow for blow. He had, in a former speech, alluded to the manner in which oysters were treated by those who ate them. There was a practice of crimping salmon, which consisted of cutting the fish across from head to tail as soon as it was caught, and while it was yet alive. The proprietor of the fishery got twopence a pound more for crimped salmon than for uncrimped. A scientific gentleman had been called before the Royal Commission and questioned about the cutting off the tail of a rat. What did people do with regard to foxes' tails? When a fox was taken, his tail was cut off while the animal was alive, in order that it might retain the beauty of the hairs. Foxes' tails so obtained were worn by ladies on their dresses at country balls, and the lady who was able to show the greatest number of foxes' tails on her flounces was the belle of the evening; and yet that lady and her admirers would help to promote a Bill in Parliament to charge scientific men with cruelty! Ostrich feathers were procured from ostrich farms, where the birds were reared for the purpose of supplying feathers for ladies' dresses; but in order that the feathers might be made to retain their brilliancy, they were plucked from the living bird. It was not very long since ladies' bonnets exhibited the golden wren, or the humming bird, or the common wren, as one of their ornaments. He had often been shocked by seeing his pretty pet bird, the golden wren, with its trustful eye, stuffed and appearing as an ornament on a lady's bonnet. These little creatures, which were our friends everywhere—in the hothouse, in the greenhouse, in the garden, and which one could not look at without loving—were trapped, and their skins were taken off while they were still alive, in order that they might retain their beauty. He had heard of ponies being branded while very young, in a part of Devonshire, in order to show the particular place from which they came; though, probably, the lady who bought the pony was not aware of the cruelty that had been inflicted upon it. Then there was the practice of cramming fowls and turkeys, which was followed in England and in France, and was in some places performed by machinery. The food was taken and thrust down the throat of the animal by machinery, and the result was that the animal lost for life the power of voluntary swallowing. It immediately suffered from paralysis of the œsophagus, and though it might go out among the cornfields it could never swallow a grain of wheat. He (Sir Dominic) had been to Hurlingham, and many of the members of Parliament who went to Hurlingham came to the House and attacked the doctors. He saw there a number of the finest ladies of the land. A box of pigeons was brought out, and the first thing done was to cut off the tails of the pigeons, to deprive them of the use of the tail as a lever which acted to them like the rudder of a ship. When they were let loose, having been deprived of their tails, they were obliged to fly straight forward, and there was, therefore, an exceedingly unfair advantage on the side of the sportsman, who was enabled thus to take a more deadly aim at the birds. He once saw a scene at Hurlingham which he should never forget, and nothing would induce him to go there again. A poor little pigeon was shot so that its bowels were hanging out, and while it was flying away in that condition, it turned round to where the ladies were sitting, and the poor creature endeavoured to take shelter on the silk dress of a lady. There was a wonderful expression of sympathy; but what was it for? Not for the poor creature with its bowels hanging out, but for the lady's silk dress! Ladies such as this would come forward at dinner parties and accuse medical men of cruelty! Perhaps some gentlemen of the Council were not acquainted with the manufacture of cocktailed horses. When they happened to be in fashion, no gentleman ever went into the field without a cocktailed horse. The method of manufacture was that the intervertebral cartilages in the tail were cut through underneath until the vertebræ were separated. But then, if the tail was allowed to heal in its natural position, it would always afterwards hang down; and to avoid that result it was tied at the end and kept in an upright position until it healed. And thus the horse was kept in misery for about three weeks, in order that its fashionable rider might ride into the field upon a cocktailed horse! The men and women who indulged in the cruel practices which he had related came forward and used their influence with the House of Lords to get support to Lord Carnarvon's Bill. He remembered, some time ago, a lady asking him to introduce a Bill into Parliament to prevent costermongers using on their donkeys an instrument which she had taken from one of them. When the instrument was produced he recognised it as a spur, such as was used by her own son. A short time ago there was a very foolish letter in the *Times* from Colonel Somerset. He (Sir Dominic) had observed that whenever there was anything foolish to be brought forward, there was a society formed to bring it forward, and at the head was the name of a colonel or a lord. This gentleman wrote to say that the practice of firing horses had been abolished among the horses under his authority. But what was the substitute? It was that red iodide of mercury was applied in place of the firing. The result of the application of the red iodide of mercury was a thousand times more painful than the application of firing. The pain of firing was over in ten minutes; but when red iodide of mercury was rubbed on the animal, three weeks would not see the end of the pain. He objected to the Report of the Committee, not because it was not good as far as it went, but because it did not go sufficiently far. Supposing Lord Carnarvon's Bill was passed, establishing a penal law, there would be immediately 3000 or 4000 medical students in the United Kingdom, every one of whom would feel bound to resist the penal law and see the experiments, simply because they were forbidden to do so. There was that principle in human nature; and if the Bill was passed, Lord Carnarvon would then have enlisted in a body against it the most active, the most intellectual, and the most determined body of young men in the United Kingdom. This remark would particularly apply to Ireland. For reasons into which he would not enter there had grown up in Ireland for many years, even for generations, an innate hatred of penal laws, and a desire to oppose them; and as soon as this law was passed there would be that innate feeling showing itself in the form of experiments carried on

in private. There was an Irishman who emigrated to America some years ago, and there was a contested election going on at the time. He was immediately laid hold of by both sides, and asked to attend to the merits of the question. What was the reply? He said, "Which side is the Government on? because I am on t'other." The same feeling of opposition would be evoked by the proposed legislation. How was duelling put down? Was it by penal enactment. Not at all; but by good feeling, by common sense, and by the control of society. If legislation was directed against vivisection, it would increase the evil instead of diminishing it.

Mr. Lister moved, and Dr. Andrew Wood seconded, a motion in favour of a deputation to wait on the Lord President to present the memorial of the Council.

An amendment, to the effect that the memorial should be presented without a deputation, was moved by Dr. Rolleston, seconded by Mr. Teale, and, after a short discussion, carried by a majority.

It was then resolved—"That a copy of the Report of the Committee on Lord Carnarvon's Bill be transmitted without delay to the presidents and heads of the various bodies mentioned in Schedule (A) to the Medical Act; and that copies of Lord Carnarvon's Bill, with the amendments proposed by the General Medical Council printed in italics, be appended to the Report; and that copies of the Report and of the amended Bill be printed for circulation amongst the members of both Houses of Parliament."

Sir William Gull moved the following resolution:—"This Council express their regret that up to this time and after so long delay no scheme for a Conjoint Examining Board for England, Scotland, or Ireland has yet been put into operation. The Council further desire urgently to press this matter of a Conjoint Board upon the bodies whose duty it is to arrange and supervise the medical examinations in the several divisions of the kingdom." He said that he thought that it was too late for the Council to occupy itself with the question whether the Conjoint Scheme in different divisions of the kingdom was desirable or otherwise. That had been determined over and over again—not so much with regard to the higher examinations as to the minimum examination—in the different parts of the kingdom. He thought that there would be hardly any member of the board who would be disposed to raise that question in the Medical Council in the year 1876. What he hoped the Council would do was to express with him their regret that up to that time, and after so long a delay, no scheme for a Conjoint Examining Board for England, Scotland, or Ireland had been put into operation. He assumed that they all held that such a scheme for the minimum examination would be desirable. What he regretted very much was that it had not been carried out in England. It was very desirable that the work should be done in the greatest division of the kingdom first. The operation of a Conjoint Scheme in England would enable them all to see the advantages of the scheme. Therefore, he did not propose to raise up the opposition of his Scotch or Irish friends in the matter, but he would ask them to unite with him all together, at that moment, to urge a Conjoint Scheme upon England. He believed that Scotland and Ireland had carried out the scheme to some extent, though not fully. The majority of the men who entered the profession entered from the English side, and therefore any conjoint scheme introduced into England would have a larger operation than one introduced into Scotland and Ireland. He thought that they would be able to avoid what was to be deprecated on that Council—namely, those corporate feelings which came in to interfere with the larger and truer judgment of individual members. When they sat at that board they ought not to remember anything but the purpose which brought them there, and that was to raise the minimum standard of education in the different divisions of the kingdom. He had heard to-day a very strong argument for the Conjoint Scheme. They had been told on the highest authority that if they went on as they were now doing they would soon be bankrupt, and that it was impossible to carry out visitation of examinations without a large expense. Dr. Wood had told them that up to this time the Council had been able to bear the expense, but that they could never look to so large an inspection of examinations as had hitherto taken place, and that henceforward the visitations would have to be extended over several years. In fact, that would be no visitation at all. Unless the Council could pay constant attention to the examination of candidates for the minimum, they would not be fulfilling the purpose for which they were constituted. He believed that the universities might be well left to confer their highest distinctions upon the most eminent men in the profession; but what was wanted was a fixed standard—fixed for the time, but always rising—for the rank and file of the profession. Without speaking offensively at all, he felt sure that the profession was not raised so high as it ought to be, when one man was licensed by an apothecaries' company, and another by a university, and so on. He desired that all men should begin in the same way, or on the same footing. The University of London had put its students into a great difficulty in order to carry out this principle; and yet it had not been carried out, though the failure was no fault of that University. The University of Oxford had been equally willing. He very much regretted that up to that time they had not been able to carry out a unity of examination, and he trusted that the Council would now express their regret that no scheme had yet been worked. He knew that there would be great difficulty in working it out. It was not for him to give advice to the different corporations, but he could not help thinking that if they went into the Conjoint Scheme with a will, and with a determination, and with a desire to serve the public and raise the standard of the minimum examination, the thing could soon be done. He thought it desirable that, in any such Conjoint Scheme, the universities should rather stand by and look on than take any active part, and that they should send down assessors to watch the operation of the Conjoint Scheme. He knew that the University of London would be willing to do that; and he believed that the Universities of Oxford and Cambridge would be equally willing merely to send assessors, and to leave the College of Surgeons, the College of Physicians, and the Apothecaries' Company to work the Conjoint Scheme. In the year 1870 the Council went so far as to go to Government to ask for a Bill to enable the Council to organise Conjoint Boards. That would be an argument to anyone who asserted that this Council had not felt strongly on the matter. They had all felt that Government interference, independently of the Council, was undesirable. It was much better that the working of the profession should be left to those who knew what it ought to be; and the Government could not know that.

Dr. Aquilla Smith said that the resolution to which Sir William Gull had referred was not carried, but that the previous question was carried.

Sir William Gull said that, at all events, it ought to have been carried. (Laughter.) However, in the year 1872 a Conjoint Scheme was actually approved by the Council, and they could not now discuss the desirability of such a Scheme. They came to that Council to raise the minimum standard of education and examination throughout the divisions of the kingdom. Some of the members seemed to think that they came there to simply see men put on the Register. He hoped that the Council would affirm the motion that he proposed.

Dr. Rolleston seconded the motion.

Mr. Turner rose to move an amendment, which, he said, he believed really expressed Sir William Gull's intention better than his own motion did. It was—"That the Council are of opinion that, in the event of bodies uniting or co-operating under the Medical Act, the corporations, as distinguished from the universities, are the proper bodies to take part in such combinations. They would, moreover, recommend the passing of an Act that no person be entered on the Medical Register unless he have a qualification both in medicine and surgery." Two questions were raised by the amendment. The first related to the bodies which were to unite or co-operate, and the second related to the qualifications of a person who was to be admitted on the Medical Register. On the first question his feeling was strongly that the bodies that ought to co-operate in forming what had been called Conjoint Boards were the bodies which they were in the habit of speaking of as the corporations, more especially the Colleges of Surgeons and Physicians, because they were the bodies which had been in the habit, for a lengthened period, of licensing or conferring qualifications for general practice. It was admitted that the object of a Conjoint Board was to introduce a minimum standard of examinations which all licensed practitioners ought to be able to pass. It was another question, and one which would bear arguing, whether that minimum standard should be a uniform one. In order to get uniformity it would be necessary that they should have only one board of examiners in each subject, and therefore he did not think that uniformity was at all a practicable thing. As to the bodies who ought

to unite, he thought that there was a good deal to be said in favour of the view that the universities should be put on one side. According to his apprehension of the function of a university, it was a body which was concerned with the highest education and the highest examinations, and not with the minimum examinations. But he quite agreed with Sir William Gull that the universities might send assessors, as they had been called, to the Conjoint Board. The introduction of the universities in this way might be some guarantee to the public that the requirements of the examination were properly carried out. Along with this question of a Conjoint Board the question of a single-portal system was mixed up in such a way that it was impossible to extricate it. He objected *in toto* to the principle that there should be only one way of getting into the profession. Such a principle, if carried out, would, he believed, exercise a most important influence for evil on the Scottish universities. As regards medical education the universities of Scotland stood on an entirely different footing from those in England; and the universities in Ireland were more in the position of the Scottish than of the English universities. In Scotland it was a rule for the great mass of the medical students to be students of the universities. If a one-portal system was instituted it would be necessary that all medical students should be called upon to pass the minimum examination of the Conjoint Board, either before or after they had obtained a degree at the university; and they would thus have to undergo and pay for the minimum examination of the Conjoint Board in addition to the higher examination of the universities. The universities objected to such a result, and the possibility of such a thing was a strong reason against the adoption of the one-portal system which had been recommended. Another point of some interest was the question where the Conjoint Board examination would be held. In England there would be very little difficulty on that subject, as students looked upon it as a matter of course that they should go to London to be examined, but in Scotland it was by no means a matter of course that they should all go to the same place for examination. There was an examination in each university town, and the students were not submitted to the expenses of a long journey before they could be examined. But supposing that, instead of the examinations being always held in one town, the examiners were a peripatetic body, they would have to carry about with them all the materials and specimens which they needed in the course of the examination, and this would be a considerable inconvenience. For these reasons, and others which he might adduce, he was opposed to the system of unifying the examinations. With regard to that part of his amendment which recommended the passing of an Act to the effect that no person be entered on the Medical Register unless he had a qualification both in medicine and in surgery, he believed that the object stated was a very important one. In Scotland there was at the present time machinery which had been in action for many years, and had effected the greatest good, and this, with a slight extension, would entirely carry out the object of this part of his amendment. The machinery to which he referred was a Conjoint Board Scheme, and it simply required that an Act should be passed that no man should go on the Register unless he held qualifications both in medicine and in surgery. He believed that such a measure would carry out all that they had any right to ask in the way of the formation of a Conjoint Board.

The amendment was not seconded.

Dr. Humphry said that he rose to propose an amendment, although he agreed with both Sir William Gull and Mr. Turner in the main points of their motions. His amendment was—"That this Council express their regret that up to this time, and after so long delay, no scheme for a Conjoint Examining Board for England, Scotland, or Ireland has yet been put into operation. The Council further desire urgently to press the importance of conjoint examinations on the bodies whose duty it is to arrange and supervise the medical examinations in the several divisions of the kingdom." He believed that there were new arguments admissible in favour of conjoint examinations. They could not look at the table of examinations without seeing that there was great necessity for conjunction. The table showed the remarkable fact that the two greatest licensing bodies in the country, which together licensed nearly half the registered practitioners of the country, gave a very extraordinary divergence in their results. The College of Surgeons of England rejected 123 out of 369 candidates, which was more than a third. The Apothecaries' Society of London in the higher examination rejected nine out of 226. Thus, in the same town, of two bodies examining the same class of students, and in many instances the same students, one rejected one-third, and the other only about one-thirtieth. Whatever might be said about the difference of subjects, it must be borne in mind that each of those bodies admitted practitioners to the Register. It was true that a great number of students passed through the examinations of both those bodies; but the fact remained that the students had an opportunity to select from one or the other of them, and there was no compulsion to pass both. That fact was a most unanswerable argument for the adoption of some kind of combination in examining. Secondly, the table of results showed that there were some bodies which examined, but which did not pass one student in a year. Let the Council imagine all the expense of examiners, and all the paraphernalia of visitation which had to take place, for the purpose of testing one candidate. Thirdly, there were bodies in which the examination was partial only; for instance, the Apothecaries' Hall of London had no examination in surgery, and some of the other bodies had no examination in medicine. The Medical Council had stated that certain subjects were essential for every candidate who was admitted to practice, but still there were these serious exceptions which he had mentioned. These undoubtedly would be most easily avoided by the bodies combining their examinations. He believed that no person had had so much to do with the effort to introduce a conjoint examination as himself. He had been a member of the Council of the College of Surgeons, and a member of several committees, and he was a member of the University of Cambridge, and had served on the Committee of Reference which had had so large a share in drawing up the scheme. But he confessed that the conclusion that he had come to was that they attempted too much at first, and were too ambitious. They had been foiled in their attempt to fuse so many different bodies together. There had been an enormous difficulty in associating individual independence with mutual concession. Undoubtedly the delay had arisen through the unwillingness of the different bodies to concede their privileges. He confessed that, from his experience of the various bodies, his belief was that it would be exceedingly difficult, if not impossible, for so many bodies to unite well together. The only possible plan on which they could unite would be that of committing the arrangement of the examinations almost entirely to one committee of reference elected by them all; and this they were unwilling to do. He felt at once that hardly any other plan was compatible with mutual confidence. Still he thought that the Council ought to endeavour to carry out the principle. It would be wiser to state in general terms the advisability of combination, than to rigidly insist on all the bodies uniting together. It was for that reason that he moved the amendment to Sir William Gull's resolution.

Dr. Rolleston: You substitute "conjoint examinations" for "a Conjoint Board" in the second sentence. That is a very important alteration.

Dr. Humphry: Yes, that is the point.

Dr. Andrew Wood: I will second that amendment.

It was intimated by Sir William Gull that he would accept the alteration, as he considered that it was a very good amendment of the wording. Dr. Humphry therefore abstained from pressing the amendment.

Dr. Andrew Wood: I cannot express regret that no Conjoint Scheme has been formed.

By leave of the Council, Sir William Gull altered his motion to the following form:—"That this Council express their regret that up to this time and after so long delay no scheme for a Conjoint Examining Board for England, Scotland, or Ireland has yet been put in operation. The Council further desire urgently to press this matter of conjoint examinations upon the bodies whose duty it is to arrange and supervise the medical examinations in the several divisions of the kingdom."

Dr. Aquilla Smith said that the expression in Sir William Gull's resolution—"The Council express their regret that no scheme for a Conjoint Examining Board has yet been *put into operation*"—implied that the Council had approved of a scheme, and that they regretted that it had not been carried out. He certainly must resist the motion, except on the express understanding that the Council had not surrendered its right to the supervision of whatever Conjoint Scheme should be brought into operation, and that the Conjoint Scheme should not come into operation until it had been approved by the Council.

Mr. Simon said that, according to law, it could not do so. A very important question arose with reference to the resolution. It was whether the substitution of the plural for the singular number, in the alteration which had been made in the motion, was meant to indicate any retreat from the principle affirmed by the Council some years ago. If the Council really meant that, in the absence of a Conjoint Scheme in each division of the kingdom, they were thankful for small mercies, and for such partial combinations as they could get,—that might, or might not, be a proper resolution; but if they meant to retreat from their previous decision on the subject, he could not agree with such a course. With a view of testing that point, he would suggest that the mover of the resolution should insert the words "adhering to the principle expressed by the Council in their resolution of February 26, 1870."

Dr. Rolleston thought that the Council, in being willing to accept partial combinations at first, were only putting themselves in keeping with the spirit of the day, which was based upon the idea of development. They knew that in the development of the embryo the mulberry mass of spheroids gradually joined into one continuous membrane; and he hoped that in the same way the conjoint examinations would grow bigger and bigger, and at last join into one continuous board. He would not despise the day of small things. Not long back in history there was a very powerful Government in this country, which was not supposed to be at all over-careful of vested interests. Did not that Government threaten that it would have a State examination? In subsequent days, when there was another Government under which vested interests were not supposed to be so liable to be harassed, the willingness of the licensing bodies to form a Conjoint Board became somehow or other "small by degrees and beautifully less." He would remind the Council that these present halcyon days were not likely to last for ever, and perhaps some day they would have a Government which would meddle with medical education, and then they would have the very bad principle of a State examination thrust upon them. Let them, by carrying out the principle of a Conjoint Board, secure to themselves the British privilege of managing their own affairs without Government interference. The mischief of a State examination, and the troubles which it brought upon all the teachers, in the provincial towns and the small universities on the Continent were very great. Under that system the gifts of genius were checked everywhere except in the very large centres. He hoped that the Council would express their regret that no one single scheme for Conjoint Boards had been put into operation. If they could not get the system carried out in its entirety, let them accept part, and so avoid having a great multiplicity of examinations. Mr. Lowe had laid it down that competition was an evil thing in examining boards. Under a Conjoint Scheme a healthy competition between the various universities and other licensing bodies would be maintained within the circumscription of one Conjoint Examining Board. The awkward necessity of visitation of a large number of examinations would be done away with to a great extent, if not wholly, but the Council would still keep the sword of Damocles under their control even if a Conjoint Board was established.

Dr. Quain said that they were now rediscussing the desirability of a Conjoint Scheme, which had been discussed for the last five years. If they had immortality given to them, they would never get rid of their business if at the end of every five years they were to go back to the position which they occupied at the commencement. In July, 1871, a resolution in favour of a Conjoint Board was passed by the Council, and no single member of the Council voted against it. Only one member declined to vote, and that was Sir Dominic Corrigan. In Ireland the licensing bodies were ready to adopt the scheme, and they were only waiting for the decision of England on the subject. For the Council now to entertain a fresh resolution which backed out of the whole system seemed to him the most monstrous proposal that was ever submitted to a body of reasonable, sensible men. If they were to discuss whether the Conjoint Scheme should be put aside again, let them discuss it on the broad question that it was undesirable to have such a scheme; but for goodness' sake let them not, by means of a side wind, retreat from their former position. Let them declare that it was not necessary to have a Conjoint Scheme at all, but let them not take the issue on the question whether there was to be a Conjoint Examining Board or conjoint examinations. It was not worthy of the Council to try and evade the point in that way. He thought that it was very sad that, after all these years of labour on the part of the Council, the thing should be set aside.

Mr. Macnamara said that he believed that no one in Ireland had taken a more active part than himself in trying to institute a Conjoint Board. He was very much amused at Dr. Quain putting the matter so *couleur de rose* with regard to Ireland, and stating that they were only waiting for England. The preparations for the scheme in Ireland went well until they came to the money question, and then they came upon a rock which foundered the vessel. It was perfectly impossible to have a Conjoint Scheme in Ireland, including the corporations and universities, so long as one of the universities furnished a surgical and midwifery qualification for twelve guineas.

Dr. Aquilla Smith: It is very cheap.

Mr. Macnamara said that that was in competition with the corporations, inasmuch as the university in question did not require an arts examination for its qualifications in the subjects which he had named. If the university insisted that a gentleman should go through a full arts course, and become bachelor of arts in the university before getting his licence to practise, there would be some justification for the cheapness of the diplomas, inasmuch as the candidate would be weighted with heavy expense in another direction. But this was not the case, and the result was that this university came into direct competition with the corporations, and undersold them. They could have no Conjoint Board in Ireland so long as that state of affairs continued. The Conjoint Scheme in Ireland was *in nubibus* at present.

Dr. Quain: But you submitted to us a scheme which was approved of by the Council.

Mr. Macnamara said that that scheme was a partial one, representing the University of Dublin, the College of Surgeons, Ireland, the College of Physicians, Ireland, and the Apothecaries' Hall, Dublin, but the Queen's University was left out. He had listened with some astonishment to Sir William Gull and Professor Rolleston. They appeared to be backsliding upon this very important question. They proposed, forsooth, that there should be a conjoint examination by the corporations, and that the scheme should be minus the universities.

Dr. Rolleston: No, no.

Mr. Macnamara: That is what you said.

Sir William Gull: Never.

Mr. Macnamara: Excuse me, Sir William Gull, you said that the examinations might be conducted by the corporations, and that probably the universities need not take an active part in them, but they might send assessors to see what was going on.

Sir William Gull: That was the intention of the University of London. They were willing at present to attend the examinations by their assessors. I said that all the licensing bodies in this kingdom could unite, if the universities were present as assessors, to express an opinion upon the examinations.

Mr. Macnamara: Well, that appears that the universities are not to take an active part in the conjoint examination.

Sir William Gull: If you mean that they are not to ask a question, that is another matter.

Dr. Rolleston: But they are to share in setting examination questions.

Mr. Macnamara said that in England there were very few persons qualified for practice by the universities. The majority who took licences to practise took them from the corporations. But that was not the case in Scotland and in Ireland, for in those countries a very large proportion took their qualifications from the universities. How, then, could that be a Conjoint Scheme which would leave the universities on one side? If they were omitted, an important factor would be absent. As far as Ireland was concerned, a Conjoint Scheme without the universities would be like the play of *Hamlet* with the part of Hamlet omitted. A feeling seemed to be gradually creeping more and more amongst the more intelligent of the profession in Ireland that there was no necessity for conjoint examinations. He knew that that feeling existed in Scotland, and he believed that it was creeping into England. There was a belief arising that the Medical Council would have to eat its words in reference to this matter. The suggestion which had been made by Mr. Turner, that there should be an Act of Parliament requiring every person on the Register to hold a qualification both in medicine and surgery, seemed to be the only practical solution of the question.

Mr. Teale rose to give the motion his warm support. To him, coming fresh into the Council, there appeared a great

amount of evidence of the great need of conjoint examinations. Certainly the arguments had gone to show that there were difficulties in Scotland and Ireland, but no such difficulties had been shown to exist in England. Two very strong facts had come before them. One was that there had been a great increase of the rejections; and the other was that there had been a diminution in the number of medical practitioners, as had been stated by the President. These two facts formed a very strong argument why the Council should think seriously about conjoint examinations. Was the increasing number of rejections the fault of the students? Had they been idle? Was it the fault of the educating bodies? Had they been more remiss? Or was it the fault of the examining bodies? He dismissed the question whether it was the fault of the students or of the educating bodies, for neither of those classes of persons could have fallen off sufficiently to account for the increase in the number of rejections. He thought that they must find the answer to the question eventually in relation to the examining bodies. He did not mean to say that they had been more severe than they ought to be, but he believed that the rejections were the result of the repeated changes in medical education which had been forced upon them in past years. If the rejections took place to too great an extent, it was the business of the Council to see how far they could regulate and mitigate the evil. He believed that one very great reason for the increase in the rejections was, that the requirements of the examining bodies had been increasing year after year. A student who went into the profession through the College of Physicians had to get certificates in twenty-five different subjects. Six of these subjects were new, and some of the new ones were of great importance. He was quite certain that at the time when he was a student an industrious student had plenty to do to satisfy the curriculum and to attend to hospital practice and dissecting-room work. Recent changes had made education more difficult, and it was becoming more or less impossible. It was more difficult than formerly for the schools to arrange the instruction in such a way as to meet the convenience of the students. There was the greatest trouble in laying out the various courses of subjects in such a way that they should not clash. This, he thought, was a strong reason why the Council should apply their force, as far as they could, to the attempt to provide a Conjoint Examining Board. The whole of medical education required recasting, in order that each subject might have its due attention, and that they might not attempt to crowd into three years more than it was possible to accomplish without abstracting time from hospital practice and dissections.

Dr. Andrew Wood considered that this was the most important discussion that they had had during the present session. It was quite clear that a very considerable change had come over the spirit of the dream of the Council since the year 1870. At that time the question of a Conjoint Board was long discussed, and many of them were swayed greatly by the persuasive eloquence of their late lamented friend Dr. Parkes. He (Dr. Andrew Wood) himself supported the resolution passed by the Council at the time of which he spoke; but they must recollect—to use the words of their distinguished Prime Minister—that "very much had happened since then." (Laughter.) The Scotch members of the Council were very often twitted by the English members. The latter said, "Look at us. See how constantly we are endeavouring to form a Conjoint Board. And there are you, in Scotland, doing nothing!" Well, in Scotland they had tried to do something, and they had loyally attempted to carry out the resolution of the Council. They had had plenty of meetings on the subject; and it must be recollected that in Scotland the holding of a meeting was a very different thing from the holding of meetings in London, on account of the distances which had to be travelled. But, at all events, the Scotch bodies made a *bonâ fide* attempt to carry out the resolution of the Council, and the result convinced them most completely of that of which he thought the members of the Council were now become generally convinced—that to follow a Conjoint Scheme was to follow an *ignis fatuus*. After the loyal attempts which he had mentioned, the Scotch Branch Council came to a resolution on July 9, 1872, recording the fact that, notwithstanding their loyal attempts, several important bodies had declined to concede to the scheme as proposed, and that the way to attain the object which was desired by the Council would be to carry out a fuller inspection of examinations as authorised by the Medical Acts. He believed that their attempt to establish the Utopian scheme of a Conjoint Board had been the means of preventing those legitimate combinations which were suggested by Clause 19 of the Medical Act. The object of that clause was to prevent a man from being put on the Register unless he had been examined in every branch of the profession. He had been pleased to hear that practical question brought forward in the present discussion. Instead of their following after the Utopian scheme of a Conjoint Board, let an Act of Parliament be passed insisting on the double qualification. That would be the way to form a Conjoint Scheme; but it could not be done by bringing together a number of heterogeneous bodies which were saying one thing one day, and another thing another day, and which at last were obliged to declare that their scheme had utterly failed. The licensing bodies in Scotland were very much ahead of the other divisions of the kingdom. Within a year or two of the passing of the Act, and since then, conjoint examinations had been conducted. The result obtained was, that whereas in the beginning the number of single qualifications granted by them was comparatively large, the respective numbers of single qualifications and of double qualifications had been completely reversed. In the year 1862, when the double qualification commenced, the number of single diplomas granted by the College of Surgeons of Edinburgh was eighty-eight, the number of double ones thirty-five; in 1863 the number of single was seventy-eight, the number of double forty-one; and in 1875 the number of single was forty-one, and the number of double seventy-seven. This showed progress. Had there been anything like it either in England or in Ireland? But that was not the whole amount of the combination that had taken place, for a great many of the single qualifications, as they were called, had been granted to men who had taken their degree in the University of Edinburgh, but who wished to have the licence of the College of Surgeons; and, with a view to encourage them to take those licences, the College dispensed with the fundamental examinations, and only gave them an examination in practical subjects. It might be said that some escaped, but he must tell the Council that his College of Surgeons examined candidates quite as fully in medicine as in surgery long before the Medical Act was passed, and no man got a diploma who was not examined in every branch, including chemistry, physiology, medicine, and everything; and the College of Physicians at the present time granted no diploma in physic without an examination in surgery. These were telling facts. Let the bodies in England try the same thing, and they would find that by degrees they would bring about what they wished to establish. Why had not the College of Physicians and the College of Surgeons in England done as had been done in Scotland?

Sir Dominic Corrigan: Because they were fools.

Dr. Andrew Wood said that the two English colleges could not agree upon the amount of examining power, and in the meantime they were, as much as possible, letting in the Apothecaries' Society, which sent out men with only one qualification. His friend Dr. Quain was a very sanguine man, and he believed that a Conjoint Scheme would some day be hatched. They had been told that a Conjoint Scheme would obtain uniformity. But was it desirable to have complete uniformity? Was there such a scheme in the Church, and was there such a scheme in the law? He denied that the bodies in Scotland only competed with one another in order to get fees. But would they get uniformity by a Conjoint Board? The idea was quite Utopian; there would always be differences, and he thought that the effect of massing together all the universities and all the corporations would be that while, perhaps, the corporation examinations would be rendered a little more stringent, the examinations of the universities would be brought down to a lower level.

Dr. Pitman said that Dr. Andrew Wood had asked somewhat reproachfully why the College of Physicians and the College of Surgeons of England had not joined to carry out a combined examination. The reason was that they hesitated in conformity with the request of the Medical Council, who wanted a Conjoint Board. Immediately upon the passing of the resolution by the Council they set to work to form a Board. They were engaged for five years in forming it, and they believed that they had arrived, within the last twelve months, at a point when the Board could have come into operation, and it was still probable that the scheme would be carried out. Not one of the co-operating authorities had withdrawn from the scheme which received the sanction of the Council in 1872. But an amendment upon the scheme had been proposed by one of the bodies, and at least one of the other

bodies had withheld its assent to that amendment. But it was not to be assumed that the scheme would not be yet put into operation. He had been very much surprised to hear that day that the views of the Medical Council were about to change on the subject of a Conjoint Board. There was no act of the Council which he more thoroughly endorsed than that which required a single examining board for each division of the kingdom. What would the profession and the public think of this deliberative body, if, after six or seven years of grave deliberation, they came to the conclusion that day that Conjoint Boards were no longer necessary? He should really be ashamed to take part in any such resolution. He quite concurred with the first part of Sir William Gull's resolution, but as to the latter part of it, which seemed to suggest that there should be partial combination and not a single Conjoint Board, he should really regret to see it carried.

Dr. Haldane corroborated the statement which had been made by Dr. Wood with regard to the combination of the College of Physicians and the College of Surgeons of Edinburgh in the examination of candidates. That combination had been attended with unmixed advantage, and the number of persons who took the single qualification was diminishing annually. The number of rejections was, no doubt, increasing very considerably, but he did not ascribe any blame to the examining bodies in this respect. On the contrary, he looked upon it as a sign that the examining bodies were doing their duty. He felt sure that very few were rejected who ought to pass, though some might pass who ought to be rejected.

Mr. Bradford, in answer to a remark which had been made as to the small number of rejections which had taken place in the Society of Apothecaries of London, called attention to the small number of rejections that had taken place among those persons examined by the Army Board. He had no hesitation at all in saying that the students came up better prepared for examination than they were formerly; but he would assert candidly that the stringency of the examination had not been relaxed. He hoped that the negotiations for a Conjoint Scheme would be successful.

Dr. Thomson agreed with Dr. Quain as to the unanimity of opinion which prevailed in the Council in the year 1870 upon this subject. He was himself the mover of a resolution in favour of Conjoint Boards, and that resolution was carried by a majority of seventeen to one. But he felt convinced that the views of the Council had altered, and if so, he did not see why they should not express that fact. The Scotch members of the Council went home after the resolution five years ago, and very faithfully attempted to arrange Conjoint Boards; but they found difficulties in the way, and more especially in connexion with the peculiar position of the universities from which so many practitioners derived their degrees. Those difficulties were found to be insurmountable, and the Scotch bodies were therefore obliged to look for some other kind of combination. Dr. Wood and others had stated correctly the very advantageous effect of the combination which had been made among the corporations in Scotland. The Council must not shut their eyes to the fact that virtually Conjoint Boards had been established in that division of the kingdom. Defects in certain of the examinations had been pointed out by the visitors, and the bodies concerned had endeavoured, as far as possible, to correct them. They had the greatest reason to be satisfied with the change which had taken place in the examinations in Scotland.

Upon the motion of Mr. Lister the debate was adjourned until the following day.

Doctor or Wine Merchant?—At the last Clerkenwell County Court, Mr. Joseph Chamberlaine, a surgeon, of Holloway, sought to recover the sum of £9 9s. 2d. from a patient for medical attendance, medicine, and wine. The sum charged for wine was £1, but the plaintiff declined to state what the wine cost him. It was the same as he drank himself, and his object in sending it was that the patient might discontinue the use of brandy. The judge disallowed the charge for wine, from which it may be assumed that a medical man is not entitled to be his patient's wine merchant. In the above case, and also in another, the same judge disallowed Mr. Chamberlaine's charges for visits, as it was shown that on his cards he had stated that visits were not charged to patients residing in the neighbourhood of his dispensary. The decision in these cases may be instructive to others besides the plaintiff.

ORIGINAL COMMUNICATIONS.

TWO CASES OF

PELVIC HÆMATOCELE SUCCESSFULLY TREATED BY DRAINAGE.(a)

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital for Women and Children.

Since this disease first began to attract attention, some twenty years ago, it has been most ably discussed by many authors, and is also well described in many of our medical text-books; and among the most recent contributions to the literature of the subject in this country are two papers by Dr. Meadows, one of which gave rise to a very interesting debate at a sister society (see vol. xiii. of *Transactions of the Obstetrical Society*). Anyone who tries, however, to guide himself to a safe line of treatment in severe cases by reference to these authorities, finds them so hopelessly at variance, both as to pathology and treatment, that he is compelled to fall back upon his own resources. The reason for these differences seems to me to lie in the comparative rareness of severe cases, and the still greater rareness of opportunities for post-mortem examination. Hence I think that those who meet with these severe cases should record them.

Case 1.—E. T., aged thirty-five, married, mother of four children, the youngest nine years old, an anæmic, worn-looking woman, presented herself among my out-patients at the Samaritan Hospital, September 22, 1875, complaining of great pain in the back and down the inside of both thighs, with loss of blood, which had been continuous for three weeks.

History.—Menstruation has been irregular for the last four years, the discharge often continuing for a whole month, and latterly she has had much pain across lower part of abdomen, coming on in sudden fits, and lasting a few hours, but always worse and more persistent during the flow.

Examination.—Free sanguineous discharge from os uteri. Uterus somewhat fixed and pushed forwards and rather to the right side by a round, tense, elastic swelling as large as an orange. The lower border of this swelling reaches a little below the junction of the cervix and body of the uterus behind and on the left side. Sound passes three inches, and rotates freely in the cavity of the uterus. The swelling and the uterus cannot be separated. I was in much doubt as to the nature of this mass; but on careful questioning I learnt that during the ordinary monthly period she had suffered more pain than usual, and when it had lasted nearly a week there was a sudden increase of the pain, chiefly in left iliac fossa and left thigh, accompanied by fainting and sickness.

I now inclined to the idea that it was a case of hæmatocele, and seeing that it was already a fortnight old and very firm, I advised her to go home and keep as quiet as possible, and at the same time I ordered her an astringent mixture and small doses of opium.

On October 1 she returned saying she was much worse: the discharge had increased rather than diminished, and the bowels were obstinately confined.

Examination.—Profuse red discharge; os soft and patulous, pointing rather to the left; fundus pushed forwards and to the right. The tense round swelling has disappeared, and in its place there is a much larger semi-fluctuating mass filling up the recto-vaginal pouch, and bulging the posterior vaginal wall about an inch below the posterior lip of the cervix. The left side of the abdomen occupied by a clearly defined, rounded, semi-fluctuating swelling, larger than a fœtal head at term, and communicating an indistinct sense of fluctuation to the mass in Douglas's space.

The patient was very feeble and blanched with hæmorrhage, so I took her in at once and had her put to bed, kept cool and quiet, ordering ℥xv. of tinct. opii every two or three hours. In the course of the next day she was seen in consultation by Mr. Spencer Wells and Dr. Bantock, and we all agreed that unless there was a speedy change for the better some more active treatment would be necessary. I continued the "rest-and-be-thankful" treatment, however, till the morning of the 4th, when, finding the patient by no means either resting or thankful, but urgently calling for some relief, and finding also

(a) A communication read before the Medical Society of London, April 10, 1876.

that the abdominal swelling was decidedly larger, I punctured with a curved trocar in the most prominent part of the swelling in the vagina. At first nothing came, but as I pressed the canula deeper, about four ounces of thick, dark, odourless blood escaped, and then the canula blocked with clot. As this had given relief, I withdrew the canula and determined to wait a little longer, ordering the vagina to be frequently syringed with cold 1-60 carbolic lotion. I had had it thoroughly cleansed with 1-20 before I made the puncture.

No discharge followed this puncture, and on the 5th she was sick and in much pain; and in the afternoon I punctured again through the same spot, and evacuated about the same quantity of similar fluid, which was now very fetid; and before taking out the canula I injected some iodine and water. Dark offensive discharge now continued to escape freely from the puncture, and the abdominal swelling became gradually smaller and softer; but at five p.m. on the 7th I found her so restless and pained that I again pushed in the canula, and washed out some clot, etc., with iodine and water. The next day she complained of heavy sweating whenever she fell asleep, and I ordered a grain of quinine with ℥x. of dilute nit. hydroch. acid every three hours.

On October 9 there was very little change in her condition, which was far from satisfactory, and I put a tangle-tent into the opening, changing it in six hours for a hollow one, through which I well washed out the cavity. Free and offensive dark discharge flowed through the tent during the night; and next day, having got a good-sized opening, I put in a glass drainage-tube.

On October 16 the tube slipped out, or rather during the night of the 15th, and a few hours after I found the opening so contracted that I with difficulty introduced a small gum-elastic catheter, through which I injected some iodine and water. This returned quite clear, and I hoped my trouble was over, especially as the temperature and pulse had both fallen satisfactorily. At 9 p.m. on the 17th, however, I found the patient in such pain that I put in another tent, and on withdrawing this next morning some ounces of fetid pus escaped. I now increased the quinine to two grains every three hours. At 5 p.m. on October 20 I found the patient hot, restless, and complaining of oppression at the chest; temperature 104·2°. I put in two fine, long tangle-tents, and during their introduction some dark, fetid fluid escaped. In four hours I changed them for a hollow one.

From this time till October 25 all went well; discharge decreasing. On that day I changed the tent, and in so doing evidently caused some fresh cellulitis, but this soon passed off, and she went on well till October 29, when all discharge ceased.

On the 30th the temperature began to rise again, and she had some pain in the left groin. This caused me to examine, and I found the tent blocked, and removed it altogether. During the next few hours six or eight ounces of fetid pus came away. I now increased the quinine to five grains every three hours.

Progress was henceforth satisfactory, and she left the hospital on November 8, when I made the following note:—Uterus somewhat fixed, not tender; no distinctly defined swelling to be felt. Opening in posterior vaginal wall can still be seen with a little clear serum oozing from it.

(*To be continued.*)

COLLEGIAL PRIZES.—The following are the subjects for the Jacksonian Prizes, for the present and ensuing years, to be awarded by the Council of the Royal College of Surgeons for the best essays on the respective subjects, viz.:—For the present year, "The Treatment of Cancer of the Rectum, particularly as regards the possibility of curing or relieving the patient by excision of the affected part"; and for the ensuing year, "The Disease of the Lymphatic System known as Hodgkin's Disease of Lymphadenoma." The Collegial Triennial Prize, consisting of the John Hunter Medal, executed in gold, of the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze with an honorarium of £50: the subject of this prize is, "The Radicles of the Lymphatic System in relation to the External and Internal Surfaces of the Body." The essays for this and the Jacksonian Prize for the present year must be delivered at the College of Surgeons on or before December 30 next.

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Medical Times and Gazette.

SATURDAY, JUNE 10, 1876.

THE GENERAL MEDICAL COUNCIL.

WE have very little more to say this week with respect to the Report of the Medical Council on Lord Carnarvon's "Cruelty to Animals Bill." After amendment by the Council in Committee, and recommittal, it was finally adopted by the Council at their sitting on Thursday, the 1st inst., and was ordered to be forwarded to her Majesty's Government, "as a memorial from the General Medical Council on the subject" of the Bill; and it was also resolved that a copy of it should be transmitted to the presidents and heads of the licensing bodies, together with copies of Lord Carnarvon's Bill, with the amendments proposed by the Council printed in italics; and, further, "that copies of the Report, and of the amended Bill, should be printed for circulation amongst the members of both Houses of Parliament." The Council have spent a great amount of time and money on the consideration and amendment of the Bill; but we venture to think that both the time and the money have been well spent. No subject of greater importance has ever come before the Council; and, as we have before observed, there was no time to lose if the Council were to act at all in the matter. That it was their duty to speak, and with no uncertain or hasty voice, on a matter of such vital importance to the progress of medical science, can hardly, we imagine, be seriously disputed. It will be seen, from our report of the discussions, that Sir Dominic Corrigan, who has been in great force throughout the session, finally refused to give his assent to the Report of the Council—partly because he held that the whole subject of cruelty to animals "should be treated in regard to its relation to society at large"; and partly because the Report did not go far enough. The Bill ought to be opposed *in toto*. Supposing it was passed, establishing a penal law, "there would be immediately some 3000 or 4000 medical students in the United Kingdom, every one of whom would feel bound to resist the penal law and see experiments, simply because they were forbidden to

do so. There was that principle in human nature," and especially, he added, in Irish human nature; "and were the Bill passed, Lord Carnarvon would then have enlisted in a body against it the most active, the most intellectual, and the most determined body of young men in the United Kingdom." Sir Dominic's speech was very amusing, and in parts very eloquent; but the *tu quoque* argument is not, in this case at least a good one to use.

The consideration of the Report of the "Committee on Parliamentary Bills, etc.," made very large demands on the time of the Council. Some little discussion was even got up about the first section of the Report, though it dealt with Mr. Cowper-Temple's Bill, which is, virtually, precisely the same as that which he brought forward last year, and upon which the Council then, at the request of the Lord President of the Privy Council, however, stated its opinion. It was agreed to reply now again in the same terms as last year, save that the Council observed, in addition, "that the degrees of doctor of medicine conferred by some of the foreign universities of highest repute, included in the Schedule to Mr. Cowper-Temple's Bill, do not authorise their holders to practise their profession in their own country, unless they shall have also passed subsequently, and in addition, a State examination." The addition thus made certainly adds force to the protest against the Bill.

The second section of the Report concerned Mr. Gibson's Bill. The first part of the Bill is intended to meet special restrictions existing in Ireland, and proposes to throw open to all legally qualified registered practitioners all public medical and surgical appointments in the United Kingdom. It appears that in Ireland no one is capable of being elected as surgeon to a county infirmary or hospital unless he has letters testimonial from the Royal College of Surgeons in Ireland; and this the Bill proposes to remedy. But it seemed to the Council that the provisions of the Bill would include all the divisions of the kingdom, and have, therefore, a general, not a particular, application. Mr. Macnamara, as representative of the College of Surgeons in Ireland, stated that they were perfectly willing to have the widest spirit of free trade carried out, provided there was reciprocity throughout the kingdom; and the Council agreed to state that, in their opinion, it will be expedient, before passing the measure, to obtain full information "as to the effect it would have in throwing open indiscriminately" all public medical and surgical appointments "in the United Kingdom, the qualifications for which are at present regulated by charter or otherwise." That part of the Bill which deals with the registration under the Medical Act of a diploma in State medicine gave rise to very prolonged discussions. The Bill proposes that a diploma in State medicine, "obtained from any university in the United Kingdom, legally authorised to confer the same," shall be registrable,—and this led to discussions on the differences in meaning and value, as qualifications, between degrees, diplomas, and certificates; on the right of corporations as well as universities to confer a registrable "qualification" in State medicine; and on the undesirability of increasing the number of qualifications. Mr. Simon felt "exceedingly shocked" at the idea of nineteen new qualifications, and thought "that the Council must of necessity be of opinion that, if it could not do otherwise than create nineteen new qualifications, it could not treat qualifications in State medicine as registrable at all." Finally, the Council resolved that no degree or diploma in State medicine or public health should of itself—"that is to say, apart from any of the present qualifications"—constitute a claim to be enrolled in the Medical Register. But they considered that "whether the diploma, though not separately registrable, might be properly admitted to registration on the footing of an additional qualification, is a question which does not at the present time admit of being brought to a satisfactory practical settlement." The Council replied in the same terms to the communication on State medicine qualifications from the British Medical Association; and we must say, with all due deference, that they seem to have come to decidedly "lame and impotent" conclusions on the subject. We suppose the possible nineteen new qualifications alarmed them, and they had an idea of deferring the registration of State medicine qualifications till the day of Conjoint Boards; but in their final criticism on Mr. Gibson's Bill they say that if such qualifications are made registrable, the privilege of such registration "should be extended to all degrees, diplomas, or certificates in State medicine or public health which may be granted by any of the bodies included in Schedule (A) of the Medical Act." We must defer till next week any comments we may have to make on the third and fourth sections of the Reports, only observing now, with respect to Mr. Russell Gurney's Bill (which will be found on page 629 of our present number), that the Council were legally advised that Clause 1, as at present worded, "might render it compulsory on the bodies mentioned in Schedule (A) to the Medical Act to grant their respective qualifications to all persons, without distinction of sex"; and they therefore "suggest" that the clause should be so amended as to clearly make the exercise of the proposed new or extended powers discretionary, and not obligatory.

In answer to the memorial from graduates holding foreign degrees, asking that such degrees may be admitted to the Medical Register as additional qualifications, the Council, as we expected, expressed the opinion that "no qualifications should be entered in the Registrar over the education and examination for which the Council cannot exercise the same supervision and control" as they do with regard to qualifications granted by the British licensing bodies.

The session was not brought to a close till the afternoon of Monday, the 5th inst. An important report of the Executive Committee on the best means of conducting visitations of examinations was adopted, one of the most important of the regulations of which is to the effect that, when the Council shall decide to resume the visitations, "arrangements shall be so made that the series shall be completed within a period of five years," though such arrangement is not to interfere with any special visitations that the Council may think fit to direct to be made. We must, however, defer noticing this report, the very important debate on Conjoint Schemes, and several other noteworthy matters, to a future opportunity; the debates in the Council have run to such a length that we cannot spare space even to comment on them this week.

THE ELECTION AT THE COLLEGE OF SURGEONS.

The time for discussing the election of Fellows to the Council of the College of Surgeons has once more arrived.

Already the name of a country Fellow has been advanced, who, it is stated, has received the pledges of over 200 of the constituency. Granting the truth of the statement, we think it unfortunate. It is to be regretted, we think, that so many should have promised their votes before ascertaining who the other candidates would be. Fellows of the College can only have acted with this precipitancy under the impression that the country element requires special representation, and that as a vacancy had been caused through the death of Mr. Southam, of Manchester, it was expedient to fill the seat with a representative of the provincial interests.

We have on a previous occasion challenged the accuracy of such a view, and protested against the acceptance of it. It cannot be too clearly recognised that the interests, both of the provincial and metropolitan Fellows, are and ought to be identical. They are the interests of the College of Surgeons itself, and the good of the profession at large. If this be

denied, let it be stated in what the divergence consists, so that the professiou may judge for itself of the grounds for the opinion that there are any separate interests. Hitherto we have heard of none; and there is in support of the opinion only a general assertion—plausible, it may be, at sight, but without foundation in fact. It is to be hoped, therefore, that nothing more will be heard of this canvass-cry, and that the forthcoming election will be decided upon merits only, and with the feeling that the best men—whoever they may be, whether country or metropolitan—will best represent the body of Fellows, and best administrate the affairs of the College.

In saying this we wish distinctly to disavow any hostility to country Fellows having seats in the Council. Indeed, we consider that when superior or equal to their metropolitan competitors they ought to, and would receive strong support, provided always they are able to attend regularly the meetings of Council and of Committees of Council. Their proved inability to do this is the great objection to provincial Fellows as Councilmen.

The work of the Council would have to be left in great measure to the permanent officials of the College if more than a very few country Fellows had seats at the board, and this for two reasons. Residence at a distance deprives members of the Council of the means which frequent visits to Lincoln's-inn-fields afford of becoming intimately acquainted with all that is going on in connexion with the College; while their attendance even at Council meetings is uncertain and irregular. It may be roughly stated that there are about eighteen meetings annually at which every member ought to be present,—and it is to be supposed there are records kept of the attendances. It would be interesting to know how many of these meetings it is usual for provincial Fellows to attend. Have those provincial gentlemen—Dr. Humphry, of Cambridge, excepted—who have hitherto been on the Council attended with anything like the regularity of the average of metropolitan members, or have they been irregular at the Council meetings and begged to be excused from Committees?

So far as the election in the present year goes, we understand that there will be four vacancies. Mr. Simon, Mr. Holden and Dr. Humphry, of Cambridge, retire in rotation, but will in all probability offer themselves for re-election.

For the fourth vacancy there are rumours of Mr. Savory and Mr. Holmes coming forward, and Mr. Wheelhouse, of Leeds, is well known to be in the field. The claims of Mr. Savory and Mr. Holmes are of the highest. They both occupy eminent positions amongst British surgeons, and they have both done good services as examiners. Mr. Savory is, however, the senior, the date of his membership being December, 1847, and of his fellowship, August, 1852. Mr. Holmes dates both his membership and fellowship from May, 1853. Mr. Wheelhouse is also a distinguished man and an eligible candidate, but no one will, we think, assert that his reputatiou in or his claims on the profession are equal to those of either Mr. Savory or Mr. Holmes. And even if they were, there is still the argument of seniority. Mr. Wheelhouse took his membership in May, 1849, and his fellowship in June, 1864, so that in respect of both he is junior to Mr. Savory, and in respect of fellowship Mr. Holmes also is no less than nine years his senior.

Under these circumstances, we cannot but hope that the body of Fellows, at the same time that they return the retiring members of Council, will elect Mr. Savory for the fourth place.

THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

In making Dr. Seaton the virtual successor of Mr. Simon, the Government have secured the services of a courteous and experienced official of high personal character, thoroughly conversant with the routine of public business, and one who has exhibited a diligence and literary ability above the average. It is in no spirit of disparagement that we add a word of regret that there seems a want of breadth in Dr. Seaton's mind, if it be true, as is commonly supposed, that he was one of the chief opponents of the scheme of what may be called "permissive vaccination from the calf." Whether or not it be true that there is a possibility of introducing syphilis along with the vaccine virus, our pages during the last eighteen or twenty years contain evidence to show that such an opinion is supported by very weighty series of alleged facts; and it would, in our opinion, have been the privilege of an enlightened and broad-minded administrator to have sanctioned the official use of a mode of vaccination which would have cut off the only argument worthy of the name against the beneficent use of vaccination. No one need have been compelled to be vaccinated from the calf; but to have authorised and encouraged the practice would have been far better on grounds of public policy than the ignoble prosecution and amercement of a few provincial fanatics. After all, it is no paradox to say that as Mr. Simon had no predecessor, so he will have no successor of the same stamp. Of the highest education and culture, general and professional, having reaped abundance of, and actively pursuing, laurels in physiology—that branch of professional labour which is most fascinating in itself, and most brilliant in the position it offers to its successful cultivators—he laid surgical practice aside for sanitary work, when he was made, almost by acclamation, the first Medical Officer of Health for the City of London. His reports, even if couched, as they were said to be, in a style too ambitious for their subject-matter, had the effect of attracting public attention, and showed that sanitary science was well worthy of cultivation by the highest order of intellect. As he did not give up his surgical chair at St. Thomas's, or the practical professional pursuits which led him in due time to the Presidency of the Pathological Society, so he escaped the narrowness of mere specialism, and helped to lift preventive medicine to a level with the elder and more favoured branches of the healing art. In sober earnest, there is not one man who could be rival or successor to Mr. Simon; but those who follow him may be glad that their office has been made one of honour by its earliest occupant.

THE WEEK.

TOPICS OF THE DAY.

Whether the parish officials of St. George's, Hanover-square, were or were not to blame in the case of the death of a woman from want of proper nourishment, which we noticed last week, it is satisfactory to be able to record that, at a meeting of the guardians of this parish, which was held last week, the following resolution was proposed and carried:—"That a letter be written to the Medical Officers of the Union, requesting that whenever a certificate of death of a pauper is given by either of them which is at all likely to lead to an inquest, a copy of such certificate be at once forwarded to the Clerk of the Guardians; and that a further letter be written to the Outdoor Medical Officers, requesting them, in the event of any case coming before their notice in which the relieving officers do not appear to be acting strictly according to their duty, to at once report the matter to the proper Relieving Committee."

The Society for the Protection of Animals liable to Vivisection held a meeting at the Westminster Palace Hotel last week, under the Presidency of the Earl of Shaftesbury, for the purpose of taking into consideration the Bill now before Parliament dealing with this subject. From the report of the proceedings it is to be inferred that the Society is not altogether satisfied with the provisions of the contemplated Act.

It was admitted that, at the present time, it would be impossible to do away with vivisection altogether, but the proposed Bill was considered to deserve the support of the country; and the meeting closed with a resolution to the effect that "the Society pledges itself, should the Bill in question be thrown out or essentially weakened, to persist in its efforts to keep the question before the public, and so obtain an effective measure for the protection of animals." The author who accused us of "compounding sins we are inclined for," etc., must have had an extensive knowledge of human nature.

It will be a matter of congratulation to more than one medical man to hear that the notorious Mrs. Mina Jury has been sentenced to seven years' penal servitude. She had latterly been exercising her talents by calling on practitioners in the character of a patient, and appropriating anything of value which was handy. By these means she stole a set of instruments, value £15, from a consulting-room at Hammersmith, and another set, worth £6 or £7, from a surgeon at Greenwich. It is rather a difficult matter to avoid the attentions of people of Mrs. Jury's calibre. It is not always possible to keep a strict watch upon every supposed patient; and the most vigilant of domestics would at times be imposed upon by the plausibilities of the class who go about to annex "unconsidered trifles." We fear this is one of the penalties of practice which can only be met by leaving as little as possible of a portable nature in the way of intending pilferers.

It seems more than probable that the question at issue between the Keighley Board of Guardians and the Local Government Board on the subject of vaccination will soon be definitely settled. In reply to the letter from the latter body, threatening that if the proper instructions to prosecute defaulters were not given within one week the Attorney-General would be instructed to apply to the Queen's Bench for a rule *nisi* for an attachment for contempt, the Keighley Guardians, after a short discussion, adopted, by six votes against five, a reply stating that they had acted in accordance with the letter of the *mandamus* and the wishes of the ratepayers, and would leave the Local Government Board to take proceedings. If the dignity and authority of the law are to be upheld, the Keighley Guardians must have a sharp lesson read to them on the necessity of obedience as one of their duties.

At a special meeting of the Richmond Select Vestry held last week to discuss the sewage difficulty, it was resolved to invite the Corporation of Kingston, the Commissioners of Surbiton, and the Local Board of Hampton Wick to unite in a scheme of drainage for the whole district. There seems generally to be but one opinion in favour of forming united districts of limited extent, as recommended in the report of Colonel Cox; and the Hampton Local Board has adopted a resolution in favour of amalgamation. At a conference of local authorities on the north of the Thames, held at Brentford on the 30th ult., the following resolution was adopted:—"That this meeting is of opinion that, seeing the difficulties which surround the adoption of any scheme of drainage in the present state of legislation, it is desirable that representations by the various local authorities below the intake of the metropolitan water companies be made to the Home Secretary for the purpose of ascertaining whether the Government is prepared to recommend the appointment of a Royal Commission upon the subject."

By advices received from Bombay to the 15th ult., it would appear that reports from Cashmere state that the cholera epidemic is spreading throughout the valley, and much apprehension is felt that it may extend to Murree, notwithstanding the strict quarantine that is being enforced. There were also thirty-five cholera cases at the camp at the Bolan Pass up to April 26. It is, however, satisfactory to learn that the cholera camp which had been formed in the neighbourhood of Rajcote has been broken up, the disease having entirely disappeared there.

Sunday, the 18th inst., is the day appointed for the annual appeal from our metropolitan churches and chapels in aid of hospitals and dispensaries. It is to be hoped that the weather will be more favourable for large congregations than that of last year's "Hospital Sunday," and that the collections will be fully equal to those of former years.

THE CATASTROPHE AT ST. GEORGE'S HOSPITAL.

The rumour which spread so quickly through the metropolis on Saturday morning that St. George's Hospital was in flames proved happily to be wrong. It very early reached the Middlesex Hospital, where preparation was made to receive any cases which might be sent on, and a messenger was despatched to ascertain the cause of the report.

The accident which really occurred, though severe enough in itself, was much more limited in its disastrous results than it is likely a fire would have been. A huge cast-iron water-tank, situated on the top of the north wing of the Hospital, and facing up Piccadilly, had burst and discharged its contents through the roof and the flooring of two wards to the ground floor of the building. It was built six years ago by Easton and Co., and was made of iron plates, each about two feet and a half square, and five-eighths of an inch thick. The tank is twelve feet deep and ten feet square. It is calculated to have contained at the time of the accident about twenty-five tons of water, or 5000 gallons. It was rather more than half full. The side of the tank facing Constitution Hill is the one which gave way. The diameter of the hole on this side is about six feet. Several plates of the tank are broken; we were struck, on looking at them, at their thinness in comparison with the amount of water which the tank held. As soon as the rupture took place, the detached portion of the side of the tank and the immense volume of escaping water were forced through the gable roof into the ward below and in front of the tank. Had it not been for this mode of construction of the roof, the water would, doubtless, have escaped over the front of the building. As it was, it forced its way in through the south end of Wright's Ward, broke down the floor to a still greater extent, carrying downwards into the ward below two beds and the patients thereof, one of whom was in bed, and the other up and about. The corresponding part of Holland's Ward on the first floor suffered in the same way by the falling volume of water carrying with it the side of the cistern, the beds and patients, and the broken roof and flooring from the ward above. Then the floor of Holland's Ward gave way, and two beds, only one of which was occupied, were added to the falling wreck. Thus the student's waiting-room, situated on the ground floor, and immediately on the right of the chief entrance to the Hospital, was reached. Anyone looking into this room now, and seeing the large beams, pieces of iron, the huge fragments of the side of the tank, and all the masses of mortar, etc., would marvel how seven students who were sitting in the room at the time could have escaped uninjured, or nearly so. Yet such are the facts. The north wall of this room is bulged outwards, and near the floor is torn right away from the east wall. Having reached the students' room, which is paved with stone, the water forced its way outwards by breaking down the door, and then flooded the whole of the passages and rooms on the ground floor and basement. The ground floor was at one time covered with water more than a foot deep. The appearance of the wards as we saw them two days after the catastrophe gave clear evidence of the violence of the water. The bedsteads at the south end of the two wards were more or less broken down and laden with *débris*. Large masses of mortar had been carried to the extreme north end

of the wards, and left there after the water had escaped. The hole through the flooring of each ward was very sharply defined, the planks having been broken off short along the line of the supporting beams. A bed in Wright's Ward, situated on the east side, and on the very edge of the hole in the floor, was broken down completely, and was covered with small fragments of the roof, yet the child occupying the bed was scarcely injured, and the bed itself, though slantingly inclined over the margin of the hole, had not fallen through.

Only two of the students were injured, and these but slightly. Of the three patients—all females—two were precipitated from the top ward, and one from the ward on the first floor. The one most seriously injured had had her breast removed a few days before—she has sustained a fracture of the skull, severe contusions, and collapse, and, it is feared, some severe internal injury. Her temperature had gone up very high, and symptoms of meningitis were imminent. The other patient seriously injured was suffering from bursa patellæ. She also is much collapsed, has a scalp wound, a broken humerus, and very severe contusions. The third case was an aural patient; her injuries are fortunately less severe.

ADMISSION OF WOMEN TO DEGREES AND THE UNIVERSITY OF LONDON.

Dr. Robert Barnes, whose nomination as a member of the Senate has been very numerously signed, in reply to the question whether he was prepared to support the admission of women to the degrees of the University of London, has given the following answer:—"The large support accorded to my candidature as Senator of the University of London is, I presume, based upon the favourable opinion my brother graduates have formed of my fitness for the office on the broad ground of general qualification, as shown by earnest and successful work in and out of the University. This is the principle upon which I myself have always voted, taking little heed of a candidate's view of a particular question. We shall probably agree that the University has not yet attained such fulness of development, or that its work is so far accomplished, that nothing is left to do but to consider special questions, and that, therefore, a senator's opinion and action upon a single question are to determine his fitness for office. The views I at present hold are as follows:—Our degrees are of two kinds: those in arts and sciences, which afford evidence of general culture; and those in medicine and law, which afford evidence of fitness for professional practice. Even if the degrees of the first kind be also regarded as affording evidence of fitness for the profession of teaching, there would still exist this wide difference between them and those of the second kind—namely, that teaching would be practised amongst young persons, and under conditions that would shield the teachers from those difficult and ambiguous positions in which women must necessarily be placed in the practice of the ministry, law, or medicine. My present conclusion is that women have a just claim to be admitted to degrees in arts; but that, even if it were granted that they had an equal claim to admission to degrees in law and medicine, it is not to their interest, or to that of the public; that it is not expedient nor practicable to admit them to these degrees."

A POLLUTED RIVER.

At the present time, when the question of the pollution of our rivers is absorbing so much public attention, it will not be considered out of place if we publish a few remarks which occur in the Report for the year 1875, of Dr. Alfred Watson, Medical Officer of Health for the Urban Districts of Penistone and Thurlstone:—"The river Don is at the present time the receptacle for all the sewage and liquid refuse of the district. For a considerable distance from the reservoir at Dunsford it is a beautiful stream of pure water. In the reservoir itself, and as far down as the junction with the Sledbrook Dyke, near Hazelhead, fish live at the present moment, but at this point ochre water from Crowedge comes in, and impurity commences. By the time it has reached Penistone-bridge it may be said to have been converted into an open drain. The river is liable to floods all the year round, and on the subsidence of these the banks are more or less covered with the slimy refuse of drainage. At Penistone-bridge the river sweeps away to a considerable distance from the town, and it is not until it reaches Spring Vale that it again becomes a source of danger from a sanitary point of view. The Cubley Brook is the watercourse from which danger is to be apprehended. This little stream receives the refuse and drainage from the brewery at Cubley, and immediately after it receives all the drainage, of every kind, from Penistone-green. It soon becomes a stinking ditch, and for six months of the year it is a standing nuisance to the unfortunate people who live beside it. Many of the houses are close to its edge, and persons living in them suffer from headache, sickness, and general malaise. But this is not all: a few yards further down, this drain is dammed up to form a reserve for the works of Messrs. Cammell and Co., and it is the only available source of drinking-water for a large number of people in Spring Vale. It is a fact that numbers of persons, well knowing what they are doing, drink the water of the Cubley Brook after it has received the drainage of a considerable portion of the town only a short distance further up the stream. It follows from this that a single case of typhoid fever at Penistone-green may infect the whole of Spring Vale, which is a large and increasing suburb of the town." This case—no doubt one of many—will show how urgent is the necessity for immediate legislation on the subject.

POISONING THROUGH CARELESSNESS.

An inquest was held by Dr. Hardwicke a few days ago on the body of a child only two years of age, who was poisoned by swallowing some carbolic acid which had been placed on the floor as a disinfectant, there being fever in the house. It appears that the poison was contained in a milk-can. In ordering carbolic acid to be used for deodorising purposes, medical men would do well to caution persons against standing it about within reach of children, in cups, mugs, and similar vessels; and especially should the use of such utensils as milk-cans be guarded against, as they may afterwards be employed for their legitimate purposes without having been properly cleansed. Many accidents would be prevented by the exercise of a little care in this particular.

THE MEDICAL DEFENCE ASSOCIATION.

At a meeting of the Council of the Medical Defence Association, held on May 24, twenty-eight new members were proposed and elected, twenty-six of whom had given their names as members of the East Anglian Branch, which includes the counties of Norfolk, Suffolk, and Cambridge. It was decided to present a memorial to the General Medical Council, asking them to take such steps as may be necessary to amend the Medical Act of 1858, so that unqualified practitioners may be prosecuted more readily. It was also decided that the solicitors to the Association be instructed to take proceedings against an unregistered practitioner residing at Chelmsford.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

The annual meeting of the Birmingham Medical Benevolent Society was held on May 26, Dr. Agar, President, in the chair. Mr. Bartleet, Hon. Secretary, read the report of the directors for the past year, which congratulated the members on the financial position of the Society, and the invaluable help it afforded to the widows and families of indigent members in the district. Dr. B. W. Foster was elected President, and Mr. T. H. Bartleet re-elected Hon. Secretary for the ensuing year. The annual dinner was held after the meeting.

HEALTH OF SIR WILLIAM FERGUSSON.

Sir William Fergusson's condition has undergone no very material change during the last week. He has generally slept well, has been comparatively free from difficulty of breathing, and within the last few days there has been some decrease of the dropsy.

PARLIAMENTARY.—RETIREMENT OF MR. SIMON FROM THE PRIVY COUNCIL—POLLUTION OF RIVERS.

In the House of Commons, on Thursday, June 1,

Lord Sandon, in answer to Mr. Waddy, said that it was not proposed to fill up the post of Medical Officer to the Privy Council, vacant by the resignation of that most distinguished public officer, Mr. Simon. Any advice which the Privy Council may require upon medical questions will be obtained from the Medical Department of the Local Government Board.

Mr. Sclater-Booth subsequently said that Dr. Seaton had been appointed Medical Officer to the Local Government Board.

Mr. Sclater-Booth gave notice that he would ask for leave to bring in a Bill for the better prevention of the pollution of rivers.

FROM ABROAD.

DELIRIUM TREMENS FROM MORPHINISM.

In continuation of a former paper on this subject (*Medical Times and Gazette*, October 23, page 478), Dr. Levinstein (*Berlin. Klin. Woch.*, April 3) adverts to some peculiar affections which he has found resulting from the excessive use of morphia injections. One of these he terms "delirium tremens from morphinism," of which he relates two cases. One occurred in the person of a medical man, who had accustomed himself to the injection of from one to fifteen grains of morphia per diem. Having reduced himself to the appearance of a drunkard and lost his post, it was attempted to wean him from his habits by substituting narcein. After five days' trial, symptoms resembling delirium tremens set in. He was now sent to the writer's *maison de santé*, and as this was a fifteen hours' journey, a large dose of morphia was administered to enable him to undertake it. This, for the time, entirely removed all symptoms of the delirium, and its accompanying hallucinations of the senses. However, after five days' treatment he began to improve, and although there was some relapse, yet at the end of a month he was enabled to employ himself rationally, and had gained five kilogrammes in weight. In the other case the patient had injected fifteen grammes daily since 1872, and after this had been discontinued on his admission, symptoms of acute delirium tremens set in. In a month he was discharged cured, having increased about three kilogrammes in weight. In another case, termed by Dr. Levinstein "intermittent fever from morphinism," the patient, to relieve neuralgia consequent on gunshot wound, had daily injected eight grains, afterwards increasing the quantity to twenty-three grains. Among the symptoms developed by this excessive use was an intermittent fever requiring the use of quinine for three weeks; and during the existence of this the patient was able to abstain from the morphia. When he recurred to it the fever was again developed, and on his admission existed as a quotidian. This long resisted large doses of quinine, but the symptoms produced by the withdrawal of morphia gradually subsided, and in a month he was dismissed cured. Two somewhat similar cases are related.

As to the diagnosis of this form of "delirium," it is only difficult when the history of the case is concealed, and it comes under observation at its later stages, when it has much resemblance to chronic alcoholism. So, also, the victim of morphinism may obscure his case by taking to drinking during its latter stage. However, acute delirium tremens from morphinism differs from alcoholic delirium tremens in the following points:—1. The latter may occur spontaneously or after a wound, or in the course of acute disease, while the delirium of morphinism is only produced by the partial or total withdrawal of the morphia. 2. When the delirium tremens of drinkers is at its height, the tremor is lost, whilst in that of morphinism it is increased. 3. Recourse to alcohol for the most part aggravates the paroxysm, and does not alleviate it, while large doses of morphia restore absolute quietude. 4. The delirium of drinkers may continue for days or weeks, while in morphinism it scarcely exceeds forty-eight hours. Intermittent fever may be distinguished only with difficulty from morphia fever, for in two of these three cases the spleen was enlarged. The history and close observation of the case and the inefficacy of quinine will prevent error on this point.

As to the treatment of morphinism, the physician has only one indication—that of suppressing the morphia, and not allowing it or other narcotics to be again resorted to; and, according to Dr. Levinstein's experience, medicinal substances are of no use. The patient, to prevent him injuring himself or others, should be kept in a separate room. After a few days the formidable train of symptoms disappears.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

(*From an Occasional Correspondent.*)

Paris, May 26.

A Professional Concours.

There are at present two vacancies in the staff of visiting surgeons to the hospitals of Paris, and a good opportunity is offered of studying the system of *concours* by which the appointments are made. The other week I referred to this subject while speaking of ordinary professional examinations, and made some remarks on their public character, which is so striking to a stranger. The second and essential element in the *concours* for public appointments is competition. The posts may be competed for by anyone who has complied with certain regulations respecting his professional career, and the best of the candidates in public examination is selected. I have thought that your readers may care to hear something about a *concours*, especially just at this time when you are so much exercised in England with the question of professional examinations; and I will attempt, in my way, to give you a short account of one.

But first let me remind you that there is but one School of Medicine here, and that the hospitals, with a few unimportant exceptions, are under the direction of a single body. In this respect Paris is very different from London. Whether for a chair in the university or for a post in the hospital, there is but one way of application, and it is open to all. There is no nepotism, no breeding-in, no favour shown in any form. The *externes* and *internes* are thus appointed, and the physicians and surgeons, as I am about to describe; and the professors and other officers connected with the School of Medicine are one and all selected by public *concours*.

Suppose now that a couple of vacancies are declared in the surgical staff. Notice is given of a *concours* to commence on a certain day, and candidates are invited to make application and be registered a clear fortnight before. The examining board is selected, and consists—in this instance—of seven surgeons and one physician. The relative numbers would be reversed if the post were a medical one. But before the constitution of the board is definitely settled, any exception that may be taken to it by a candidate is received and considered. It is expressly laid down in the regulations that no member of the examining board shall be in any way related to any of the candidates. On the appointed day the applicants present themselves, and the proceedings begin. I will presently tell you what these gentlemen have already experienced—one might even say suffered—in the matter of public ordeal. At present I will only remark that they must have been at least five years in possession of the qualification of doctor before they can apply, unless they have previously been *internes* or *lauréats*. Thus they are men of at least thirty, and if I were to say that the average age of the *successful* competitors is, perhaps, five years more, I do not think I should be far wrong. A very pleasing set of men they are when seen in a group waiting for the summons—the *élite* of the young French surgeons of their time.

The examinations are arranged in two series, the first consisting of *épreuves d'admissibilité*, and the second of *épreuves definitives*—that is, the first is eliminative, for the purpose of

reducing the number of candidates to about four for each appointment; and the second is selective, for the final choice of the successful man. In each series there are three separate examinations. First, the candidate examines a patient clinically for ten minutes, and delivers a dissertation on the case before the jury after five minutes' reflection; second, he performs two operations on the dead body; and thirdly, he delivers a dissertation on some subject in pathology selected by the jury, and which he has been allowed twenty minutes to prepare. This dissertation also lasts twenty minutes, and is a fair illustration of the plan pursued. The jury are seated at a table in the amphitheatre of the hospital; the candidate, introduced after his *réflexion*, takes his station at a desk before them; and the audience, which, of course, includes the other candidates, are gathered in the seats behind. By means of a few notes which he has had time to jot down after the announcement of the subject, the candidates guides himself through the various heads of etiology, symptoms, pathology, etc., of the disease which he has to describe. His time is up,—he retires; and the second man, who has meanwhile been busy preparing in his turn, takes up his parable. The effect is certainly very different from anything to be seen in England, as far as I am aware.

The second series of examinations, which concerns only the select few, begins with a written paper on a subject in normal or pathological anatomy, over which the candidate may spend as much as three hours. Next comes, once more, the clinical examination of a patient for ten minutes, and a public dissertation on the case for fifteen minutes, after five minutes' reflection. Last of all, there is a "written consultation" on a case, ten minutes being allowed for examining the patient, and three-quarters of an hour for writing the account of it; this is immediately read in public. In each of the six examinations the value of the results is judged by points, twenty, or in some cases thirty, being full marks. The candidate who has scored highest is, of course, selected.

I have described a surgical *concours* to you, and a medical one is very similar. The number of candidates is, I am told, on an average, fifteen or sixteen for surgical appointments, and only three or four for medical. If you were to inquire, Who are those candidates, and what is their occupation otherwise? I believe you would be told, They are competitors—professional competitors. I suppose they take what practice they conveniently can in town meanwhile; but, as a matter of fact, they think more about the next *concours*. They are said to compete, on an average, seven times before they are successful; and, of course, many are never so fortunate. They then retire into the obscurity of general practice, or they may obtain one of the other numerous appointments about the Medical School.

And now, if I have not already exhausted your patience with these rather dry details, let me tell you what each of these candidates for a surgeoncy has passed through in the way of examination from the beginning of his student's life till now. First, two preliminary non-professional examinations; secondly, three examinations at the end of his first, second, and third medical years respectively; and five more after the fourth year, with a thesis, for the degree of doctor. Meanwhile, he has been an aspirant for hospital appointments. Every student must be a *stagiare*, or ordinary ward assistant, for two years, but the best men proceed very soon to compete publicly for the post of *externe*, or special dresser. Every year 200 or 250 *externes* are selected, and the appointment extends over three years. The highest post to which a student can aspire is that of *interne*, or house-surgeon, obtained, of course, by public competition. There are thirty or forty such appointments made yearly, and they last for four years. Note that the *interne* must be a student,—he cannot be a doctor; and then, reckoning up the years he has spent as *externe* and *interne*, think how old he must be before quitting the hospital. But of course he is one of the best men of thousands, and will probably make his mark in future in the profession. Even after all this is over, he may become a prosector, or an assistant in a laboratory, or a *chef de clinique*—provided he is successful in the *concours*. You see, then, that when at last he comes to compete for a place on the visiting staff, he is no tyro in writing papers and delivering his opinion by public dissertation. Surely he must be sick of examinations!

When a stranger comes thus to review the French system of appointments, he is naturally critical; while he feels that it is scarcely necessary for him to mention the advantages that it presents. The system that works well in a country so advanced as France, and that has brought to the front so many men of world-wide and immortal reputation, cannot be considered but, on the whole, successful and satisfactory. The student is stimulated to constant, hard, and careful work. He is required to be thoroughly practical; and in becoming acquainted, by competition, with the worth of the whole generation around him, he learns to know himself, and acquires a healthy and praiseworthy ambition. But, as I have said, a critic is bound to regard the other aspect of the system. First he sees a young man spending a larger part of his life as a student than in these days can perhaps be well afforded; at least, this will probably be his opinion, if he is an Englishman. Naturally, the French will reply that the English system is bad,—that a raw boy should be turned into a medical school for three or four years, and at the end of that time turned out a ripe medical man. Still, the time spent here is very long. And next to this objection must be urged the more serious one, that for all this period the student is tied closely to his work, and the young medical man confined closely to Paris. So many *concours* are before him; so much work, both theoretical and practical, has he to accomplish; so intimately must he be acquainted with the medicine of his own country,—that he cannot, except with the greatest difficulty, pursue much original investigation, read foreign works, or travel abroad. This I believe to be the greatest objection to the French system of repeated *concours*. While the younger men possess in a remarkable degree clinical tact and acumen, and probably know all that has been written and said in France upon their own subjects, they would appear to be far behind the Germans—and, let me hope, the English—in their knowledge of the medicine of other lands. All German medical men know French; how many French know a word of German? They complain that they cannot find the time to learn it, if they would; they "have a *concours*," and must be busy over their own books, and deny themselves the pleasure and advantages of travel. I need not remind you that this system has given a very distinct shape to the French character in our own profession and in others; and that it has, in a great measure, to account for the self-satisfied and somewhat affected tone that characterises not a few of their works. I believe I am not wrong when I say that the present generation of professional men here are becoming actively alive to this grave defect. Once this has been better appreciated, the student will probably not fail to find time, even amidst all his many labours, to keep up the acquaintance with other languages which he certainly made at school. With their brilliant parts and splendid opportunities for study, it will be a fortunate day for the profession in Paris when they have become more cosmopolitan.

THE salary of Mr. Carter, the Coroner for Surrey, has recently been increased to £1400 a year.

THE reception took place at the French Academy, at Paris, on the 1st inst., of M. Dumas, the eminent chemist. He has been a member of the institution for forty years, and is seventy-six years of age.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN MAY.—The following are the returns (by Dr. Meymott Tidy) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	19·60	0·072	0·090	0·001	14·3	3·0
West Middlesex .	19·10	0·047	0·105	0·000	14·0	3·0
Southwark & Vauxhall . . .	19·50	0·054	0·120	0·001	14·3	3·2
Chelsea . . .	19·75	0·072	0·105	0·000	14·3	3·0
Lambeth . . .	19·50	0·061	0·105	0·000	14·3	3·0
Other Companies.						
Kent. . . .	27·40	0·010	0·210	0·000	20·6	6·0
New River . .	19·25	0·029	0·120	0·000	14·3	3·0
East London . .	20·15	0·015	0·135	0·000	14·8	3·8

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Grand Junction, West Middlesex, Southwark and Vauxhall, Chelsea, and the Lambeth Companies.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College having undergone the necessary examinations for the diploma of Fellow at the half-yearly meeting terminating on the 30th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and at a meeting of the Council on the 8th inst. were admitted Fellows of the College, viz. :—

Clutton, Henry Hugh, B.A. Cantab. and L.S.A., Witham, Essex, diploma of Membership dated January 26, 1875, student of St. Thomas's Hospital.
Cottle, Ernest Wyndham, B.A. Oxon. and L.R.C.P. Lond., Scots Fusilier Guards, May 16, 1871, of St. George's Hospital.
Crétin, Eugene, M.B. and L.R.C.P. Lond. and L.S.A., Mauritius, April 21, 1875, of St. Bartholomew's Hospital.
Godlee, Rickman John, M.B. Lond., Henrietta-street, Cavendish-square, July 24, 1872, of University College Hospital.
Keetley, Charles Robert Bell, L.R.C.P. Lond., Great Grimsby, Lincolnshire, July 24, 1873, of St. Bartholomew's Hospital.
Lediard, Henry Ambrose, M.D. Edin., Cleveland-street, W., of the Edinburgh School.
May, Bennett, M.B. Lond. and L.S.A., Temple-street, Birmingham, January 23, 1868, of the Edinburgh School.
Morgan, John Hammond, M.A. Oxon., Chapel-street, Park-lane, July 23, 1872, of St. George's Hospital.
Osborn, Samuel, L.S.A., Gresham-park, Brixton, January 26, 1871, of St. Thomas's Hospital.
Pepper, Augustus Joseph, Barrowden, Rutlands, May 19, 1875, of University College Hospital.
Pope, Harry Campbell, M.B. Lond. and L.S.A., Bromsgrove-villas, Shepherd's Bush, May 2, 1871, of the Birmingham School.
Ransford, Thomas Davis, L.R.C.P. Lond., Salisbury, January 22, 1873.
Roechel, Joseph Waldemar, L.R.C.P. Lond., Lansdown Lodge, Bath, January 22, 1873, of St. Bartholomew's Hospital.
Sanders, Thomas, L.S.A., South Molton, North Devon, May 24, 1864, of University College Hospital.
Shuter, James, LL.B., M.A. and M.B. Cantab., Tufnell-park, Holloway, July 21, 1874, of St. Bartholomew's Hospital.
Tweedy, John, L.R.C.P. Lond., Harley-street, Cavendish-square, April 16, 1872, of University College Hospital.
Webber, William Littleton, L.R.C.P. Lond., Modbury, Devon, January 22, 1873, of St. Bartholomew's Hospital.

Thirteen candidates out of the thirty examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for one year. At the same meeting of the Council, the following members of the College having been elected Fellows at previous meetings, were admitted as such, viz. :—

Bennett, Joseph Blacker, L.S.A., Cleckheaton, Normanton, diploma of Membership dated May 18, 1840.
Carter, James, L.S.A., of Cambridge, January 5, 1836.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 1 :—

Birt, Louis Francis Hugh, Harcourt-terrace, Brompton.
Blaker, Thomas Frederick Isaacson, Portslade, Brighton.
Inman, Robert Edward, Amhurst-road, Hackney.
Owen, Charles James Rayley, Cleveland-square, W.
Scallon, Ernest Oliver, St. Martin's-lane, Charing-cross.
Whitley, Francis George Herbert, Truro, Cornwall.

The following gentlemen also on the same day passed their primary professional examination :—

Knaggs, Robert Henry Edward, St. Thomas's Hospital.
Lendon, Alfred Austin, University College.
Osborn, William Henry, Queen's College, Birmingham.
Phillips, Alfred, University College.
Whitcombe, William Philip, Queen's College, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

GODLEE, RICKMAN JOHN, B.A., M.B., M.S. Lond., F.R.C.S. Eng., has been nominated for election to the office of Assistant-Surgeon to the Charing-cross Hospital, *vice* Fairlie Clarke, M.A., M.B. Oxford, F.R.C.S. Eng.

PURCELL, F.A., M.D., 35, Welbeck-street, W., to be Assistant-Surgeon to the Cancer Hospital, Brompton.

SANGSTER, ALFRED, M.B. Cantab., M.R.C.P. Lond., has been nominated for election to the office of Physician for the Treatment of Diseases of the Skin to the Charing-cross Hospital, *vice* E. J. Sparks, M.B., M.A. Oxon., and M.R.C.P. Lond.

TURNER, F. CHARLESWOOD, M.D., Fifth Assistant-Physician to the London Hospital.

WHITE, WILLIAM, M.D., House-Surgeon to Ashton-under-Lyne District Infirmary.

NAVAL, MILITARY, &c., APPOINTMENTS.

ST. JAMES'S PALACE.—The Queen has been pleased to appoint Charles Edward Fitzgerald, M.D., to be Surgeon-Oculist, in Ireland, in ordinary to her Majesty, in the room of Sir William Robert Wilde, M.D., deceased.

ADMIRALTY.—Clark A. Ducket, M.D., to be Fleet Surgeon in her Majesty's Fleet, with seniority of May 28, 1876.

BIRTHS.

ARMSTRONG.—On May 27, at 23, Victoria-terrace, South Shields, the wife of J. F. Armstrong, M.D., of a son.

BINNS.—On May 29, the wife of Wm. Binns, surgeon, Springwood, Pudsey, Leeds, of a son.

GRAY.—On May 10, at Mooltan, Punjaub, the wife of Robert Gray, M.D., Civil Surgeon, of a daughter.

MEIKLEJOHN.—On May 30, at 16, Notting-hill-square, W., the wife of John W. S. Meiklejohn, M.D., Fleet Surgeon H.M.S. *Orontes*, of a son.

RUNDLE.—On March 26, at Swansea, Tasmania, the wife of George Edward Rundle, surgeon, of a son.

THOMAS.—On May 28, at Shepperton, Middlesex, the wife of Edmund Frederick Thomas, M.R.C.S., etc., of a daughter.

MARRIAGES.

ADAMS—DOYNE.—On June 1, at the parish church, Wraxall, George Edward d'Arcy Adams, M.D., of West Town, Backwell, Somerset, to Emily Elizabeth Doyne, second daughter of the late Rev. P. W. Doyne.

BRAITHWAITE—WADE.—On June 1, at Kirkstall Church, Richard Hale Braithwaite, of Leeds, solicitor, second son of Wm. Braithwaite, M.D., to Mary Louise, youngest daughter of the late John Wade, Esq., of Leeds.

INGLIS—NORRIS.—On June 1, at the Ladye Chapel, Hereford Cathedral, Charles John, younger son of the late James Inglis, M.D., of Halifax, Yorkshire, to Effie Jeanette, only daughter of the late C. Wallace Norris, Esq., of Wood Hall, Halifax.

MORCOM—FARR.—On June 1, at the Priory Church, Dunstable, Augustus Morcom, Esq., Coniston, Lancashire, to Alice Kate, third daughter of Frederick Farr, surgeon.

POPE—WILLIAMS.—On June 1, at the parish church, East Barnet, Edward Phelps Pope, of Farfield, Moor Allerton, Yorkshire, to Elizabeth Mary Agnes, youngest daughter of the late James Williams, M.D., of Southwold, Suffolk.

SCHUSTER—WEBER.—On June 1, at the German Chapel Royal, St. James's, Ernest, eldest son of Francis Joseph Schuster, of Sunnyside, Upper Avenue-road, to Hilda, eldest daughter of Hermann Weber, M.D., of 10, Grosvenor-street.

SMYTH—DRURY.—On June 1, at Marylebone Parish Church, Arthur W. Smyth, Esq., of the Legacy Duty Office, Dublin, to Elise Vallancey, fourth daughter of William V. Drury, M.D., of, 7, Harley-street, Cavendish-square, W.

DEATHS.

ARNOTT, FRANCIS, third son of Henry Arnott, F.R.C.S., on June 2, at Chichester, aged 3½ years.

COLLINGWOOD, JOSEPH, M.R.C.S., on May 29, at Corby, Lincolnshire, in his 67th year.

DAVEY, RICHARD GIBBONS, M.R.C.S., Justice of the Peace for the Cinque Ports, on May 26, at Hill House, Upper Walmer, in the 69th year of his age.

EATON, WILLIAM, M.D., late of Grantham, on May 30, at St. Martin's, Stamford, in the 75th year of his age.

GARSIDE, Rev. CHARLES BRIERLEY, M.A., of St. Aloysius Presbytery, London, some time of Brasenose College, Oxford, only child of the late Joseph Garside, surgeon, of Manchester, on May 21, at Villa Tawangi, Posilipo, Naples, aged 58.

GRAY, ALICE DAWSON, wife of Robert Gray, M.D., Civil Surgeon, and youngest daughter of the Rev. John Dawson Hull, Vicar of Wickhambrook, Suffolk, on May 10, at Mooltan, Punjaub.

GREY, GEORGE, M.D., late of Newcastle-on-Tyne, on April 30, at Kruid Fontein, South Africa, aged 45.

LINTON, CHARLES, M.R.C.S., L.S.A., on May 29, at Oundle, Northamptonshire, aged 67.

MOORE, ANNE, widow of York James Moore, M.R.C.S., late of Torquay, on May 27, at Wainfleet, aged 46.

ORWIN, JAMES, M.D., formerly of Haverstock-hill, N.W., on May 31, at 16, St. James's-road, Brixton, S.W., in the 65th year of his age.

ROBERTS, ADELAIDE MARIA, daughter of William Roberts, M.D., of Mosley-street, Manchester, on May 27, in her 6th year.

SHEKLETON, MARGARETTA GEORGINA, the eldest surviving daughter of the late Robert Shekleton, M.D., of Dublin, on May 30, at 65, Carlton-hill, St. John's-wood.

SPURGIN, WILLIAM MORTIMER, son of the late John Spurgin, M.D., of Great Cumberland-street, Hyde-park, on April 23, at Kimberley, South Africa, from the effects of injuries received from natives, aged 39.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

ABINGDON UNION.—Medical Officer. Applications, with testimonials, to Bromley Challoner, Clerk, on or before June 17.

BOURNEMOUTH GENERAL DISPENSARY.—House-Surgeon. Candidates must possess a qualification both in medicine and surgery and be registered. Salary £120, with furnished apartments, coals, gas, and attendance. Testimonials, etc., to R. T. Hearn, Esq., on or before June 15.

HOXTON HOUSE ASYLUM.—Assistant Medical Officer. Must be doubly qualified and registered. Applications, etc., to the Superintendent at the Asylum.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Medical Officer of Lock Ward. Candidates must be registered and unmarried. Salary, with board and residence, £150 per annum for first six months, afterwards £200 per annum. Applications and testimonials to Chairman of the Committee, on or before June 12.

ROYAL ISLE OF WIGHT INFIRMARY, RYDE.—House-Surgeon and Secretary. Applications, with testimonials, to the Secretary, not later than June 14.

SETTLE UNION.—Medical Officer. Applications, with testimonials, accompanied by diplomas, to John Lister, Union Clerk, before June 13.

WEOBLEY UNION.—Medical Officer. Candidates must possess the necessary qualifications required by the Local Government Board. Applications, with testimonials, to Edmund H. Cheese, Clerk, on or before June 12.

WEST SUSSEX, EAST HANTS, AND CHICHESTER GENERAL INFIRMARY AND DISPENSARY.—House-Surgeon. Applications, with testimonials, to H. Cotton, House-Surgeon and Secretary.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL INFIRMARY.—Dispenser. Candidates must be Pharmaceutical Chemists of Great Britain by examination. Applications, with testimonials, to James Hay, House-Governor and Secretary, on or before June 17.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Abingdon Union.—Mr. Charles Hemming has resigned the Second District; area 7709; population 4620; salary £115 per annum. The Fourth District; area 6209; population 2309; salary £65 per annum. Also the Workhouse; salary £45 per annum.

Ashbourne Union.—The Longford District is vacant; area 14,856; population 2395; salary £24 per annum.

Bolton Union.—Mr. W. D. Bowkett has resigned the office of Resident Assistant Medical Officer at the Workhouse; salary £100 per annum.

Crediton Union.—Mr. Edward B. Stephens has resigned the Cheriton Bishop District; area 6240; population 807; salary £15 per annum.

Dover Union.—The Second Division of the St. James District is vacant; area 6738; population 1112; salary £25 per annum.

Whitchurch, Hants.—Mr. Joseph Stevens has resigned the St. Mary Bocune District.

A NEW PARK, at Highgate, Birmingham, was opened on Friday, the 2nd inst. Birmingham now possesses five public parks.

DR. DECAISNE, at the last sitting of the Academy of Sciences, Paris, sent in a paper on the intoxication caused by the liquor known under the name of "Grande Chartreuse," as also by the "Eau de Mélisse des Carmes." In the course of ten years Dr. Decaisne has observed six cases of alcoholism occasioned by the former beverage. Two of the patients were females. In the "Eau de Mélisse" he finds the same exciting plants as those used in "absinthe,"—hence the immoderate use of this drink will cause the same effects.

ROYAL MEDICAL COLLEGE.—At the annual election of pensioners and foundation scholars, the following were the successful candidates for the pension, viz.;—Mrs. Mary Baird, 10,136 votes; Mrs. Lucy Garrett, 6021; Mrs. Harriet Jagoe, 5537; and Mr. J. H. Jackman, 4565. The following were successful candidates for the scholarships, viz.:—H. Basan, who recorded the large number of 10,616 votes, followed by R. C. Nisbet, 8251; C. W. Roberts, 8153; H. R. Thompson, 7428; S. Saunders, 6782; E. W. D. Kitc, 6575; G. E. Adams, 6486; W. Serjeant, 6196; C. F. Baker, 5849; H. O. P. Nind, 5673; and J. A. Bowe, 5620. There remained thirty unsuccessful candidates for scholarships and six for pensions.

THE NORTH-EASTERN HOSPITAL FOR CHILDREN.—The annual meeting of the governors of the above institution was held at the City Terminus Hotel last week, Mr. J. G. Barclay in the chair. The report, which was read by the secretary, stated that during the year 1875 there had been admitted 260 in-patients and 13,677 out-patients, being a large increase on the numbers admitted in 1874. The financial position of the institution is said to be more satisfactory than at the close of any preceding year, but there is still a balance of £554 due to the treasurer. A special appeal is being made for the sum of £5000 to build two new wards capable of holding fifty beds.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the College, held on Monday, June 5, pursuant to the provisions of the Supplemental Charter, the following Fellows were elected officers for the ensuing year:—*President:* George H. Kidd. *Vice-President:* Robert M'Donnell. *Secretary:* William Colles. *Council:* William Colles, Richard G. H. Butcher, Alfred H. M'Clintock, George H. Porter, Professor T. C. D. M'Dowell, Albert J. Walsh, T. Jolliffe Tufnell, Edward Hamilton, Edward Ledwich, Rawdon Macnamara, John K. Barton, Edward D. Mapother, Archibald H. Jacob, Philip C. Smyly, John Denham, Henry Wilson, John Cronyn, William I. Wheeler, and Samuel Chaplin.

THE IRISH MEDICAL ASSOCIATION.—The annual meeting of the Irish Medical Association was held at Dublin, on Monday, at which the following resolutions were carried:—"That Poor-law medical officers should be entitled, without the consent of the guardians, to superannuation allowances of two-thirds of all their official emoluments. That the action of the Council was approved of in drafting a Bill for amending the law for registration of births and deaths in Ireland, with the view of assimilating it to the English law, and to obtain for Irish registrars remuneration equal to that given for similar services in England. That the salaries paid to sanitary medical officers in Ireland are totally inadequate." Dr. Chaplin, the chairman, suggested that the Government had it in its power to make Irish medical service most effective by paying all the salaries, appointing all the officers, and promoting them subsequently according to merit. There was also an urgent necessity for amending the law relating to coroners in Ireland. Resolutions were also adopted condemning the abuse of dispensary medical relief, and claiming increased remuneration for attendance as witnesses in courts of justice, and more adequate fees to civil medical practitioners in charge of military troops in Ireland.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** Many important communications and articles stand over, owing to the pressure on our columns caused by the meeting of the General Medical Council.

G. R. S.—The office of the British Association for the Advancement of Science is at 22, Albemarle-street, London; and the Secretaries are Captain Douglas Galton, F.R.S., and Dr. M. Foster, F.R.S.

Associate, King's College.—Sir William Fergusson has two sons. The eldest, we believe, is a barrister; the other an officer in her Majesty's Indian Army.

R. N., Plymouth.—We hear that the retiring members of the Council of the College of Surgeons will offer themselves for re-election—viz., Messrs. Holden, Simon, and Humphry. There is one death vacancy to fill up—that occasioned by the lamented decease of Mr. Southam.

Theodore B.—Helmholtz was the discoverer of the ophthalmoscope. Dr. John W. Ogle was the first English physician to draw attention to this means of research in medical cases.

N., Herefordshire.—Yes; in the colony of Gheel, in Belgium, the harmless lunatics are placed in cottages, and live the life of the people—a people trained by habit to treat them properly. Here they labour in the fields, live with their hosts, play with the children, and share in all that pertains to the household. In this village, or combined villages, the actual medical treatment is under the control of medical inspectors.

Ergo.—Anatomists in ancient ages seldom dissected human bodies, but very often the bodies of those quadrupeds whose internal structure was thought to approach nearest to that of the human body. Modern anatomists have discovered many mistakes the ancients were led into by their conceiving a greater similitude between the structure of men and of some beasts than there is in reality. Conclusions erected upon analogy stand on a slippery foundation.

J. L. C., Worcester.—It is estimated that there are some 4800 miles of navigable rivers and canals in England, and that our canal population—men, women, and children—amounts to 96,000, of which 40,000 are children. The Act for placing all brickyards directly under Government inspection, and prohibiting the employment in these yards of girls under sixteen, and of boys under thirteen years of age, came into operation on January 1, 1872.

G. P.—It is very easy to dissolve carbonate of magnesia in water by the aid of the carbonic acid generated in a seltzogene. The natural seltzer water contains a notable quantity both of lime and of magnesia, with a larger quantity of bicarbonate of soda and of common salt. We suspect the fresh mineral waters of Seltzer, Vals, and Apollinaris are more palatable than any artificial imitations, whether prepared at home or by the mineral water manufacturer. The St. Galmier water is remarkably soft and agreeable, though seemingly not much in fashion now.

TEETOTALISM IN PRACTICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the course of the last thirty years I have had many opportunities of watching the effects of teetotalism and the career of teetotalers. The sum of my observations is, that of the persons who totally abstained twenty or thirty years ago, all now living have returned to the moderate use of wine and spirits. My friends were not of the raving, rampant class who denounce alcohol as diabolical, and look on the man who takes wine in moderation as worse than the confirmed drunkard; on the contrary, they abstained from motives of economy, or because they felt that they did not want wine, or to set an example of sobriety to their neighbours. All now take wine like other moderate people in a good position of life. Last week I went to visit a friend and fellow-student of nearly forty years' standing, who was once an abstainer. He is now a confirmed invalid, and takes daily a small quantity of good port wine. We had a long talk on alcohol and its effects, and we agreed that it supplies a fillip when needed by the flagging action of mental and bodily organs. My friend, as he emptied his glass, summed up by saying, "I see now what a fool I was for depriving myself of the benefits and comfort of wine during so many years!"

I am, &c., GARRULUS.

COMMUNICATIONS have been received from—

Dr. Stephen Mackenzie, London; Dr. E. Markham Skerritt, Clifton; Dr. R. H. Semple, London; Mr. H. S. Gilbourne, Fort Hays, U.S.A.; Mr. T. Holmes, London; The Secretary of the Royal Institution of Great Britain; Mr. T. H. Bartleet, Birmingham; Dr. C. M. Tidy, London; Mr. C. R. Francis, Sutton; Dr. J. W. Moore, Dublin; Dr. Edis, London; Dr. Sullivan, Havana; Mr. B. Lewis, Wakefield; Dr. Foulis, Glasgow; Dr. P. Black, London; Dr. Gavin Milroy, Richmond; The Secretary of the British Medical Association, London; Mr. W. W. Wagstaffe, London; Dr. George Johnson, London; Mr. H. W. S. Crow, London; Mr. H. Fisher, London; The Secretary of the Royal College of Surgeons, London; Dr. Morell-Mackenzie, London; Mr. J. Knowsley Thornton, London; Mr. G. Brown, London.

BOOKS AND PAMPHLETS RECEIVED—

Bentley and Trimen, Medicinal Plants, part 9—Guy's Hospital Reports, vol. xxi.—The Nightingale Fund: Report for the Year 1875—Alfred Baring Garrod, M.D., F.R.S., A Treatise on Gout and Rheumatic Gout—Frank Boniface, M.D., The Syphon and the Slipper—Report of the Society for the Protection of Animals liable to Vivisection—E. Bouchut, Atlas d'Ophthalmoscopie Médicale et de Cérébroscopie—Wm. A. Byrd, M.D., On the Wire Ligature in the Treatment of Ununited Fractures and in Resections of Bones for Deformity—John Liddle, Report on the Sanitary Condition of the Whitechapel District for the Quarter ending April 1, 1876—List of Skeletons and Crania in the Section of Comparative Anatomy of the United States Army Medical Museum—J. J. Woodward, Description of the Models of Hospital Cars; Description of the Models of Hospitals; Description of the Models of Hospital Steam-Vessels; Description of Perot and Co.'s Improved U.S.A. Medicine Waggon, exhibited in the Philadelphia International Exhibition, 1876—J. Forbes Watson, M.A., M.D., etc., The Imperial Museum for India and the Colonies—Fifty-fifth Annual Report of the Charing-cross Hospital.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—The Shield—American Supplement to the Obstetrical Journal of Great Britain and Ireland, May—The Langham Magazine, June—The Obstetrical Journal, June—Nature—The Monthly Homœopathic Review, June—Students' Journal—The Practitioner, June—El Progreso Medico—Archives Générales de Médecine—Richmond and Louisville Medical Journal, May—The Monthly Microscopical Journal, June—The York Herald—Dublin Journal of Medical Science, June.

APPOINTMENTS FOR THE WEEK.

June 10. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. Henry Morley, "On King Arthur's Place in English Literature."

12. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

13. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

14. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society (Council Meeting, 8 p.m.), 8½ p.m. Annual General Meeting.

15. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

16. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

EXPECTED OPERATIONS.

London Hospital.—The following operations will be performed on Saturday (this day), June 10, at 2 p.m.:—

By Mr. Maunder—Osteotomy of Femur; Excision of Hip-Joint; Excision of Elbow-Joint.

By Mr. James Adams—Amputation at Ankle-Joint.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 3, 1876.

BIRTHS.

Births of Boys, 1250; Girls, 1202; Total, 2452.
Average of 10 corresponding years 1866-75, 2147·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	717	626	1343
Average of the ten years 1866-75	680·7	627·8	1308·5
Average corrected to increased population ...	...	...	1400
Deaths of people aged 80 and upwards ...	...	...	31

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	17	10	...	10	1	1	1	4
North... ...	751729	...	1	6	3	14	1	2	1	1
Central ...	334369	...	5	1	...	6	...	2	...	2
East	639111	...	5	8	1	20	2	1	2	...
South... ...	967692	4	5	20	1	26	2	5	...	6
Total	3254260	4	33	45	5	76	6	11	4	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·927 in.
Mean temperature	56·0°
Highest point of thermometer	73·6°
Lowest point of thermometer	41·7°
Mean dew-point temperature	47·9°
General direction of wind	Variable.
Whole amount of rain in the week...	0·12 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 3, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending June 3.	Deaths Registered during the week ending June 3.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3189428	46·3	2452	1343	73·6	41·7	53·0	13·33	0·12	0·30
Brighton	100632	42·7	62	39	66·6	44·3	53·5	11·95	0·15	0·38
Portsmouth ...	124867	27·8	74	59	...	...	...	...	...	...
Norwich	83430	11·2	49	41	72·0	39·0	51·0	12·22	0·11	0·28
Plymouth	72230	51·8	45	40	73·0	44·0	55·3	12·95	0·00	0·00
Bristol	199539	44·8	141	75	77·7	36·9	54·9	12·72	0·45	1·14
Wolverhampton ...	72549	21·4	62	42	76·5	40·4	55·5	13·06	0·16	0·41
Birmingham ...	371839	44·3	254	153	...	...	...	...	...	...
Leicester	113581	35·5	82	42	71·2	40·8	54·6	12·56	0·01	0·03
Nottingham ...	93627	46·9	75	30	72·7	38·4	54 0	12·22	0·03	0·08
Liverpool	521544	100·1	388	303	63·1	44·0	52·2	11·22	0·29	0·74
Manchester ...	357917	83·4	266	182	70·0	40·0	54·0	12·22	0·46	1·17
Salford	138425	26·8	128	84	68·7	37·5	52·1	11·17	0·48	1·22
Oldham	88609	19·0	90	54	...	...	...	...	...	...
Bradford	173723	24·1	134	88	66·3	43·6	53·8	12·12	0·01	0·03
Leeds	291580	13·5	241	134	68·0	43·0	54·6	12·56	0·03	0·08
Sheffield	274914	14·0	218	128	71·0	41·0	54·4	12·44	0·38	0·97
Hull	136933	37·7	136	50	69·0	44·0	54·2	12·33	0·33	0·84
Sunderland ...	108343	32·8	95	53	...	...	...	...	...	...
Newcastle-on-Tyne	139929	26·1	105	61	63·0	43·0	51·7	10·95	0·00	0·00
Edinburgh	215146	51·3	142	92	73·5	42·0	56·0	13·33	...	...
Glasgow	545144	90·4	387	267	36·0	39·8	52·9	11·61	1·10	2·79
Dublin	314666	31·3	170	140	74·6	40·7	55·5	13·03	0·22	0·56
Total of 23 Towns in United Kingdm	8028595	37·7	5826	3500	77·7	36·9	54·2	12·32	0·24	0·61

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·93 in. The highest was 30·10 in. on Thursday morning, and the lowest 29·59 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

LECTURES ON CANCER OF THE ŒSOPHAGUS: BASED ON 100 FATAL CASES.

DELIVERED AT THE LONDON HOSPITAL MEDICAL COLLEGE, MAY 10 AND 17, 1876.

By MORELL MACKENZIE, M.D. Lond.

[Reported by Dr. GORDON HOLMES.]

GENTLEMEN,—More than a century ago, Gyser pointed out the conditions which are required to enable the œsophagus to satisfactorily discharge its functions, in the following words :—"In order that the gullet may rightly fulfil its office with respect to swallowing, it is necessary that it should be endowed with a fitting amplitude, and should possess the power of contraction, that the ingesta be finely masticated, and that both the latter and the œsophagus itself be sufficiently moistened."(a) We shall have to deal to-day principally with the first and fundamental condition pointed out by Gyser as essential to that part of deglutition which is performed by the œsophagus. I shall bring under your notice several patients suffering from cancer of the œsophagus. I shall show you many illustrative morbid specimens, and I shall treat of the disease in relation to its etiology, development, progress, and final issue. In this way I shall represent the disease clinically, pathologically, and systematically, and I shall hope thus to lay before you so clear a picture of the malady that you will not only be unlikely in the future to make any mistake in diagnosis, but that you will generally be able to give an accurate prognosis as regards both the time and mode of termination of this fatal disease.

Causes.—The same causes which predispose to, or excite, cancer in other parts of the body, lead to its development in the œsophagus. Amongst the former are heredity, age, and sex; amongst the latter, local irritation or injury, long-continued functional weakness, and frequent spasmodic contractions. Hereditary influence appears to be considerable. Out of sixty cases that I have noted with reference to this circumstance, some member of the patient's family was affected in eleven instances; and in one of them the patient's father had died of stricture of the œsophagus.

Dr. B. W. Richardson considers that heredity is more common in this than in almost any other localised cancer, and states that in a series of ten cases observed by himself there was in no instance wanting a history of some malignant affection amongst the relatives.(b) Age greatly influences the occurrence of the disease. It is extremely rare under forty, the most usual period of development being between fifty and sixty, although the decennial periods between forty and fifty, and sixty and seventy, produce almost as many cases. In 100 fatal cases that I have investigated the incidence of the disease in relation to age was as follows(c) :—

Age.	Number of Cases.
From 30 to 40	8
„ 40 „ 50	28
„ 50 „ 60	34
„ 60 „ 70	24
„ 70 „ 80	6
Total	100

The following table is an analysis of thirty cases(d) occurring in the *Transactions of the Pathological Society*. It will be seen that the results closely correspond with my own cases :—

Age.	No. of Cases.	Percentage.
From 30 to 40	2	6·66
„ 40 „ 50	6	20
„ 50 „ 60	11	36·66
„ 60 „ 70	8	26·66
„ 70 „ 80	2	6·66
Over 80	1	3·33
Total	30	

The following is an analysis of forty-three cases observed by M. Béhier,(e) but it is right to remark that in three of the cases occurring between twenty and forty the diagnosis was doubtful :—

Age.	No. of Cases.
From 20 to 30	3
„ 30 „ 40	4
„ 40 „ 50	10
„ 50 „ 60	11
„ 60 „ 70	10
„ 70 „ 80	3
At 82	1
„ 86	1
Total	43

It may be remarked, however, that if these tables were corrected in accordance with the number of people living at each decennial period, it would show a constantly increasing mortality in each decennium as age advances.(f)

Dr. Habershon(g) gives a table of 21 cases, of which 15 were men whose average age was 56·5, and 6 were women whose average age was 46·5. The same greater proclivity to the disease amongst men is indicated by my own table. Thus, out of 100 cases, 71 were males and 29 females. In Petri's(h) cases, examined at the Anatomico-Pathological Institute of Berlin, the liability of the male sex to disease is even more remarkable, for out of 44 cases there were only 3 in which women were affected. The extraordinary numerical inferiority of the female sex in this collection of cases indicates the accidental introduction of some fallacy such as the fact of fewer female bodies being supplied. My experience is also in accord with Dr. Habershon as regards the younger age at which women are attacked, the average age of the men in my series being 52·43, and of the women 44·5. This great preponderance of the male sex in cases of cancer of the œsophagus is remarkable, when it is recollected that more than twice as many women as men die of cancer in general. One explanation of this circumstance has been sought in the fact that men more freely indulge in spirituous drinks. In some cases the abuse of spirits seems, undoubtedly, to have been concerned in the production of the disease. Out of my 60 cases 5 patients acknowledged to have been free drinkers, and 4 others were publicans by occupation. On this point also Gyser observes :(i) "We believe, indeed, that the insane craving of delicate people for spirits being gratified for many years, is the primary cause and originator of those indurated rings (of the œsophagus), and of the miserable death which results from them." In some instances it would appear that injuries, intrinsic or extrinsic, may have had some influence in determining the site of the growth in persons of a cancerous diathesis; but the supposed cause (such as a foreign body sticking in the throat) is often only the first symptom of the malady. Epithelioma may supervene upon simple stenosis, as in a case reported by Dr. Hilton Fagge.(k) Several cases have come under my notice, in which the disease appeared functional for many years, but ultimately proved organic. The following is a good illustration, but others equally remarkable have come under my notice. A poor woman, aged forty-five, consulted me in 1863 on account of dysphagia. A

(a) E. G. Gyser, "De Fame Lethali ex Callosa Œsophagi Angustia," etc. Sect. vi. Argentorati, 1770.

(b) *Trans. St. Andrews' Med. Grad. Assoc.*, 1872-73, vol. vi., page 184.

(c) Of these 100 cases sixty occurred in my own practice, twenty-five were treated by my colleagues at the Throat Hospital, and fifteen at the London Hospital. All the cases between thirty and forty were women, four of them having been thirty-four years of age, the others older.

(d) There are altogether forty nominal cases reported in the *Transactions*, but some of them do not appear to have been true cases of cancer, others are incomplete, and a few, being reported by myself and colleagues, are included in my own series.

(e) "Conférences de Clinique Médicale." Paris, 1861-62.

(f) The mortality from all causes in 1860 was 422,721, and the deaths from cancer 6287, whilst in 1870 the total deaths were 515,329, those from cancer being 9598. A large apparent increase in the prevalence of cancerous disease is thus shown, but, in all probability, it is due to greater accuracy of diagnosis, and the decrease of mortality from epidemic affections.

(g) "On Diseases of the Abdomen," second edition, 1862, page 42.

(h) "Ueber 44 in Pathologischen Institut in Berlin in der Zeit von 1859, bis zum März, 1868, vorgekommene Fälle von Krebs der Speiseröhre." Berlin, 1868.

(i) *Op. cit.*, sec. x.

(k) *Guy's Hospital Reports*, series iii., vol. xvii.

bougie could be passed with ease. There was no expectoration; and as the patient was of very nervous temperament, I treated her with anti-neurotics. She frequently consulted me, and for ten years I regarded her case as "functional"; but in the early part of 1874 a cancerous growth was seen with the mirror, protruding from the mouth of the œsophagus, and by the end of the year the patient died from extensive epithelioma of the gullet. It is true that in this case the patient complained of constant uneasiness in the throat during the ten years, but there was no other symptom pointing in any way to organic disease. It appears more probable that cancer originated at a spot morbidly sensitive, than that epithelioma existed all the time, but was completely masked, and progressed so slowly that it did not terminate fatally for ten years. A still more striking case is recorded by Sir Everard Home,(l) in which a lady had some difficulty of swallowing almost from birth, and for the last thirteen years of her life suffered from extreme dysphagia. No solids could be swallowed for the last six weeks; and after death an annular stricture was found in the middle third of the œsophagus, with extensive ulceration and sinuses extending into lungs.

We are not possessed of sufficient statistical evidence to form a reliable estimate as to the proportion in which cancer affects the œsophagus in relation to other parts of the body. According to Dr. Walshe,(m) thirteen out of 8289 deaths from cancer in Paris are ascribed to cancer of the œsophagus. In a table of 471 cases given by M. Lébert, to which he attaches some credit, the gullet was the seat of the disease in eight instances. Thus the difference between the two sources from which we cite is too disproportionate to give any definite clue to the relative prevalency of the malady.

Symptoms.—The most constant, striking, and important symptom in all cases of cancer of the œsophagus is difficulty in swallowing—*dysphagia.*(n) It is the symptom which usually first attracts, and then rivets the patient's attention. There is never any *odynphagia* in uncomplicated cases. Usually the patient first experiences an occasional obstruction to the descent of food. This occurs if he takes a large mouthful, or if the food is of a dry nature. Shortly this difficulty becomes the rule, and the patient then complains that the food lodges somewhere—usually at the same point—when he attempts to swallow. As the disease progresses he is obliged to wash down every mouthful with a draught of liquid, and he soon finds that he cannot take solids at all, except after prolonged mastication, and with the aid of fluids. Then he is no longer able to swallow solid food in any form, and his diet is restricted to liquids. As time goes on, in some cases the stricture becomes so impermeable that even liquids cannot be swallowed, or a fistulous opening being formed between the œsophagus and trachea, the swallowed liquids pass into the windpipe and are immediately ejected by a violent and painful attack of coughing. One of the early symptoms of organic stricture is the expectoration of a frothy fluid. In ordinary health the secretions of the mouth and pharynx are constantly passing down the œsophagus into the stomach; when, however, an obstruction exists in the gullet, these secretions collect just above the stricture, and after a time are expectorated, often in large quantities. Occasionally this expectoration is the first symptom of the complaint. The sputum is usually of a clear character, closely resembling saliva, of which, with mucus, it is mainly composed. Sometimes it is viscid or muco-purulent and streaked with blood. Sometimes, especially in the latter case, small particles are voided, which, on microscopic examination, are found to contain the so-called cancer-cells. The collections of saliva and mucus and the accumulations of food at the point of obstruction may give rise to the formation of a slight pouch, and some minutes, or even an hour after food has been taken, the ingesta may be regurgitated. In cases of cancer, however, these diverticula never attain the size they reach in traumatic stricture or simple dilatation.

The next symptom to which attention must be directed is emaciation, which is never absent, and which progresses *pari passu* with the obstruction. The emaciation, indeed, is often so extreme that the patient becomes a mere walking skeleton. In this process of wasting, the fatty depositions in various parts of the body are first absorbed, and then the muscles atrophy. The degeneration of the muscular and other structures necessarily gives rise to great physical weakness, and the patient is disinclined and unable to take any exercise, or, indeed, perform any act requiring muscular effort. The cancerous cachexia is often absent, the patient dying of starvation before the constitution of the blood becomes thoroughly perverted. The fact that the largest number of cases of cancer of the œsophagus are epitheliomatous—a variety of cancer in which the cachexia generally developes slowly,—and that the disposition to glandular infection is very slight, accounts for the comparative infrequency of any specific change in the complexion of the patient.

As already remarked, the act of deglutition is not generally painful, but there may be a constant dull aching pain, and, if present, this symptom is always aggravated when the patient swallows. The pain is sometimes referred to a definite spot, which corresponds with the point where the food seems to lodge. At other times it is felt between the shoulders, behind the sternum, or more rarely about the hyoid bone or at the epigastrium. Sometimes the pain is very limited, but occasionally it radiates over a wide area. Often it is slight, and only amounts to uneasiness; it is only very rarely that it is described as sharp and cutting, or burning. Where there is ulceration the breath has often a faint or fetid odour. Cough is of frequent occurrence, and is generally due to chronic laryngitis, which is a very common concomitant of stricture of the œsophagus. The affection of the windpipe may occur as a consequence of extension of a low grade of inflammation of the œsophagus above the stricture, or it may be caused by the passage of food or the overflow of saliva into the larynx, a condition already referred to, which is all the more likely to occur when paralysis of the muscles guarding the upper aperture of the larynx has resulted from pressure on the recurrent laryngeal nerves. If a communication has been established between the œsophagus and trachea or bronchi, the coughing is of a very violent kind, called forth whenever swallowing is attempted, and attended with threatened suffocation. Dysphonia is often present from paralysis of one of the vocal cords; and there may be some dyspnœa, or even stridor, when, as generally occurs in cases of pressure on the recurrent nerve, the abductor is mainly affected. The laryngeal symptoms are, of course, aggravated when both recurrents are involved.

Physical Signs.—The external signs of disease are seldom very manifest; but on carefully examining the throat a slight thickening may sometimes be felt deep in the tissues of the neck, and, in some rare cases, the deep cervical glands can be perceived to be enlarged. Glandular implication is, however, distinctly the exception to the rule. On auscultating the œsophagus, according to the method which I have described to you, the nature of the disease can generally be determined. If in the early stages we auscultate the œsophagus below the stricture when a mouthful of fluid is attempted to be swallowed, there may be a very indistinct grating noise; whilst in a more advanced condition, where the stricture is almost impermeable, a confused and prolonged bubbling sound is heard. On attempting to pass a bougie it will be found that the progress of the instrument is completely arrested at a certain spot, or that it can only be passed with difficulty through a constricted opening. Sometimes, after the bougie has penetrated one stricture, a second contraction is perceived lower down, but this is a rare occurrence. Although the instrument be most gently used, its point may be found to be smeared with blood; or the patient may spit up a few drops, or even a drachm or two of blood, directly after the operation.

[The lecturer here brought two cases under the notice of the class. The first patient was a man, aged fifty-seven, who was suffering from carcinoma of the middle third of the œsophagus. Difficulty in swallowing solids had commenced in the previous October, but the patient was able to take liquids till the beginning of April, and now was scarcely able to swallow any fluid whatever. There was no evidence of glandular enlargement, and no cachexia; but the patient was extremely weak and greatly emaciated. He was troubled with constant expectoration of a frothy fluid. The second patient was a woman, aged forty-five, who had suffered from difficulty of swallowing for six months. She was very thin and weak, and decidedly cachectic in appearance. She was only able to sip fluids, and the greater part of these were immediately rejected. She was obliged to keep a basin constantly at her side on account of the large quantity of fluid

(l) "Practical Observations on the Treatment of Strictures in the Urethra and Œsophagus," vol. i. page 542. London, 1803.

(m) "The Nature and Treatment of Cancer." London, 1846.

(n) Though an almost constant symptom, dysphagia is not invariably present. A case in which it seems scarcely to have existed is recorded in the *Pathological Society's Transactions*, vol. vii., page 188. In this instance there was a distressing grinding sensation in the epigastrium on deglutition.

she was almost continuously expectorating. In both these cases the stethoscope clearly revealed the situation of the disease, and rendered it unnecessary to employ a bougie.]

(*To be continued.*)

MEETING

OF THE

GENERAL MEDICAL COUNCIL,

HELD AT THEIR HOUSE, OXFORD-STREET, W.

NINTH DAY—FRIDAY, JUNE 2.

THE discussion on Sir William Gull's motion as to Conjoint Boards was resumed.

Mr. LISTER said that he could not join in the expression of regret which was conveyed in the resolution. He felt less hesitation in expressing this opinion, seeing that from the three divisions of the United Kingdom they had had admissions that members of the Council who were concerned in this matter many years ago had had their views modified. During the six years which had elapsed since the passing of the resolution in favour of Conjoint Boards, the members of the Council had had ample opportunity for quiet deliberation. He did not suppose that any member of the Council objected to the combination of boards where it could be done without inconvenience. No doubt it would be highly expedient for the College of Surgeons and the Society of Apothecaries of England to conjoin for examination, and the examinations, by such an arrangement, might be greatly improved. There were now, as it were, spurious appendages to the examinations of many of the bodies. The fact of there being but one examination would cause a diminution of the expense. If Sir William Gull's motion had been that combination under certain circumstances was highly desirable, he (Mr. Lister) would have supported it most cordially. What Dr. Wood had said showed that the exceedingly desirable conjunction of the bodies had been delayed by a striving after a one-portal system. Dr. Pitman's remarks confessed the same thing. Dr. Wood had stated that the reason of the slowness was not any unwillingness to conjoin, but an endeavour to carry out the wish of the Council in its entirety. It did not at all follow that there was any special virtue in there being but one portal. Theoretically, it did not matter how many portals there were, provided that at every portal there were strong, vigilant porters. He doubted very much whether the uni-portal system would tend to strengthen the vigilance of the porters. All who were interested in medical examinations must regret to observe that in this metropolis any man who rose to eminence in his profession tended to give up his position as a teacher, and decline the duties of an examiner. That would be still more the case if the uni-portal system was adopted. Hitherto it had been an honour to be an examiner at the College of Physicians or the College of Surgeons; but he strongly suspected that when the *esprit de corps* and the desire for the honour of individual bodies was removed, it would be found that the examiners were not improved in quality. Examining was not only a most difficult, but a most troublesome and unpleasant business. He frankly confessed that if examining did not constitute one essential portion of his duties as a professor, he would not engage in it. He believed that if the uni-portal system existed in Scotland he should decline the most irksome and onerous duties of examining. But there was another point of view in which the matter might be looked at. It had been said, though, he believed, very unjustly, that the profession was not duly represented by this Council. There was, however, one party which was not represented at all at this Council, and that consisted of the medical students, who were most of all interested in medical education. Of course, the students could never be represented there, but the Council were bound to regard their interests. From the students' point of view, it would be found that the uni-portal system was not the best. If a man obtained the degree of M.B., which admittedly involved a more onerous examination than the uni-portal examination would be, why should he be then required to undergo the uni-portal examination, which was admittedly inferior? While the fee for the M.B. examination was ten guineas, the fee for the conjoint examination would be £30.

Sir WILLIAM GULL: No, £5 extra.

Mr. LISTER said that, at all events, it might be asked what privileges were to be gained for the £5 in addition to the M.B. degree. Besides the necessity to pay the fee, there would be the necessity of being subjected to an additional examination. Examinations were, in their way, a very great evil; and that, surely, was a reason why they should be limited as much as possible. The fact of an examination being in prospect was a great hindrance to study. Perhaps a man would be attending lectures on one subject, and all the time be under the fear of having to be examined in another. This would exercise a most terrible influence upon his mind. After all, examinations were, to a certain extent, a lottery. Even after a man had got an M.B. degree from a university he might have to run the risk of being rejected at the admittedly inferior minimum examination. The Conjoint Scheme might divert a large number of men from taking a university degree at all, and induce them to be content with the conjoint minimum. There was a great advantage in a student being examined by his teachers, and this advantage would not accrue under a Conjoint Scheme. A man who was learning from a teacher who was attempting only selections from the subject in hand would be seriously hampered at the examination if the examiner happened to take an entirely different line of the subject. Preparation for examination by one man, and examination by another, placed a student at a considerable disadvantage. It was an exceedingly easy thing to make radical changes, but it was impossible to undo them when they had been made. The case might be met by a series of efficient visitations. The expense of visitations to the present large number of examinations had been spoken of as a serious drawback to the visitation scheme. He agreed with Sir William Gull that visitation must be done thoroughly and completely if it was to be worth anything; but he (Mr. Lister) did not believe that it was necessary to visit the same body year after year if its examinations had been found to be of a sufficiently high character. If a body was found not to come up to the proper standard, it might be visited year after year until the proper standard was attained.

Sir DOMINIC CORRIGAN feared that they had travelled altogether out of the direct line which was laid down by Sir William Gull's motion. That motion merely expressed regret that certain things had not been done; but the discussion had diverged altogether into another subject. The wording of the resolution—"That this Council express their regret that no scheme for a Conjoint Examining Board has been put into operation"—implied that the Council looked upon a Conjoint Examining Board as a desirable thing. If the resolution was passed, it would indicate that the Council approved of the Conjoint Scheme. There would be no getting out of that conclusion, for they were called upon to express their regret that it had not been put into operation. In other words, the resolution was a clever attempt by a side-wind to get this Council to pass a resolution to the effect that they approved, at the present moment, of a Conjoint Scheme. For his own part, he did not feel any regret that a Conjoint Board had not been established. It had given him great pleasure to hear Mr. Macnamara advocate the passing of an Act of Parliament to secure that every man who went into practice should have a double licence. Such a measure would remedy the evil which was complained of. Mr. Macnamara had stated that an attempt had been made to set up a Conjoint Scheme in Ireland, and that the bodies split upon the money question. As regarded his (Sir Dominic's) own University—the Queen's—the question of money never came before them at at all; but, to quote the words used by Dr. Thomson yesterday, they found "insurmountable difficulties," and the attempt failed. He should vote against the motion.

Dr. HUMPHRY said that it was extremely important that the Council should take a practical view on the question, and therefore he would move the following amendment:—"The Council desire to urge upon the several licensing bodies in Schedule (A) to the Medical Act, without delay, the importance of union or co-operation in conducting their examinations, so as to secure that every person who is admitted to the Register has been tested in medicine, surgery, midwifery, and the other subjects which are deemed essential by the Council."

Mr. LISTER seconded the amendment.

Dr. HUMPHRY said that he hoped the motion would not be put. It was quite clear that a division on that motion would indicate that there had been an alteration of opinion.

Sir WILLIAM GULL said that he thought a division would be

desirable, as it would make clear the exact position of the Council on the subject.

Dr. Humphry said that he thought it would be undesirable to record on the Minutes a decision which would be condemnatory of the system of Conjoint Boards. For the credit of the Council, he believed that it would be better that such a division should not take place, but that they should unite in what was the common view, which was that there should be combination between the licensing bodies. It was quite certain that there was no possibility of a Conjoint Board in Scotland and Ireland; and therefore it was scarcely worth while for the Council to divide on Sir William Gull's motion. The Council might give an impulse to combination in examinations by urging it upon the several conjoint bodies. They could all combine in such a resolution, but he saw no use in taking a vote upon the whole question.

Dr. Fleming said that it appeared to him that a faithful and loyal attempt had been made to form a Conjoint Board in each division of the kingdom, and had failed. There was not the slightest doubt that in England several such attempts had been made. He believed that the whole thing had broken down through the attempts being too ambitious, and aiming at too high a standard. Ever since he had been a member of the Council, there had been great diversity of opinion on this subject. Having looked at the subject very attentively, he was of opinion that the end could be obtained in England and Ireland by the private co-operation of the corporations without the universities, as had been done in Scotland.

Dr. Rolleston said that he had been comparing Professor Humphry's amendment with the original motion, and he found that the two proposals differed in the fact that the amendment put forward the Conjoint Scheme as a desirable thing upon one ground only, which was that every person who came upon the Register should be qualified in all the various points which the amendment mentioned. There were, however, other reasons for combination in addition to the reason urged in the amendment. The motion which had been moved by Sir William Gull was not restricted to any particular reason.

Dr. Andrew Wood was very glad that the question had been brought before them in the practical form which had been suggested by Professor Humphry. The amendment suggested something which the Medical Act encouraged them to do, and he believed that that was the only thing which was practicable at present. It had been urged that a State examination would be established if the Conjoint Scheme was not adopted. He demurred to having a pistol presented at his head to force him to accept the motion. He was not to be deterred by any threat. He did not believe that any Government would come and override the licensing bodies by a State examination if it was seen that they were combining in accordance with the existing law, and gradually evolving good results. Dr. Humphry's amendment would not prevent the English bodies from making a conjoint examination if they could do so. He believed that it would be better to accept the amendment than to attempt what appeared to be a thing still far in the distance—the establishment of a uni-portal system, which had been found, as yet, to be utterly unworkable. It had been proved that the combinations which were so desirable between the Colleges of Physicians and the Colleges of Surgeons in the three branches of the kingdom had been delayed by the attempt to form an ideal or phantom Conjoint Scheme. Although they had failed to carry out the entire Scheme, they might still do what the law authorised them to do, and what, if they did it, would redound to the benefit of the profession.

Dr. Aquilla Smith held that the amendment was unnecessary, as it did not go farther than what was permitted under the Act. There was evidently a great division of opinion in the Council, and he thought it would be a very cowardly act on the part of the Council to shrink from coming to a vote on Sir William Gull's motion, because that vote might show a discrepancy between the present and the former opinions of the Council. The discussion would appear in the public press, and the fact of the division of opinion could not be burked.

Mr. Simon appealed to Dr. Humphry to withdraw his amendment. He felt that it would tend to prevent a true vote being taken on the issue before them, and it would perplex the Council by leading away from the real matter. If the amendment came up as a substantive resolution after the vote on Sir William Gull's motion, he (Mr. Simon) should see nothing to object to in it.

Sir Dominic Corrigan thought that Dr. Humphry's motion was a desirable one.

By leave of the Council the amendment was withdrawn, on the understanding that Dr. Humphry might afterwards submit it as a distinct motion.

Mr. Simon declared his entire adhesion to Sir William Gull's motion. He did regret that up to this time, and after so long a delay, no scheme for a Conjoint Board had been put into operation. He regretted it, and he was not afraid to say so. He believed that during the eighteen years that the Council had been in existence, it never passed a resolution which commanded so entirely the assent of the medical profession as that which it passed in favour of a Conjoint Board. As far as he had heard, the universal opinion of the medical profession was that the consolidation of the examining authorities in different parts of the kingdom was indispensable for the maintenance of a proper standard of education, and that without such a consolidation it was impossible for the Council to exert a due influence in maintaining a proper standard. With regard to a scheme which had been suggested in qualification of the policy of 1871, which was that the combination should be limited to the corporations, and that the universities should be outside it, he should extremely object to that course, although he regarded it as quite unimportant whether the universities took part in the scheme as examiners or as assessors.

Dr. Quain said that he did not think that the Council knew enough of the reasons why the various bodies had not carried out the recommendations sent to them from the Council. The vote of regret would be a vote of censure upon those bodies—("No, no");—and he held that an inquiry should be made as to their reasons preliminary to any vote of censure being passed upon them. It had been stated by one member from Ireland that in Ireland the obstacle to union was a question of money, while another member denied that that was the case. In England it was a matter not of money, but of sentiment. In Scotland the attitude was *noli me tangere*. The fact was, the Council had no proper knowledge of the grounds upon which their resolutions had been disregarded, and he thought that they were bound to address the bodies on the subject. He admitted being an enthusiast on the subject, for, as a member of the Council, he felt bound to be enthusiastic and earnest in anything which he took up in connexion with his position there. The speaker then referred at length to the various acts of the Council on the subject of Conjoint Boards, for the purpose of showing the history of the subject, and concluded by moving an amendment to the effect that the attention of the licensing bodies mentioned in Schedule (A) be called to the resolutions of the Council of June, 1870, and that inquiries be made as to the reasons why those resolutions had not been carried out.

Dr. Pyle and Mr. Macnamara simultaneously seconded the amendment.

The Council adjourned for a few minutes, at the expiration of which the President stated that Dr. Quain wished to withdraw his amendment. Leave having been granted, Dr. Quain thereupon gave notice that he would, on a future day, move to the same effect in a substantive resolution.

Mr. Quain said that he understood that Sir William Gull's motion involved a censure on the licensing bodies, and therefore he could not vote for it.

Mr. Simon said that he attached great importance to Mr. Quain's vote. He (Mr. Simon) did not understand that the resolution was a censure, and his vote would not be in that sense.

Sir William Gull, in replying upon the motion, said that, as a man of the world, he had been very much astonished to see gentlemen coming from all parts of the kingdom and positively taking sides upon a question of this sort, instead of deliberating upon it as men of independent minds ought to do. During the five years that he had been a member of the Council he had proposed a motion on this subject year by year, and up to that moment nothing had been done. The Council were just about to stultify themselves or not, according to the vote which they were now going to give. The question was a public one, and he believed that the time would come when the public would say, "We must have a Conjoint Board." There was great difficulty in visiting and supervising nineteen examinations. At least, there was six times the difficulty which there would be in visiting only three. Professor Lister had argued the question of a Conjoint Board very fully; but his arguments, if fairly looked at, amounted to saying that examinations were of very little value, and that the functions

of this Council were almost nothing. He (Mr. Lister) had said that a man ought to be examined by his teachers; but that was a principle which was altogether contrary to the principles laid down by the Council. Such a course might be very convenient to the student; and if Professor Lister was the teacher, he (Sir William Gull) would trust him to examine his young students. But supposing there was an ignorant teacher examining an ignorant student? Where would the profession be then? He hoped that each member of the Council who voted that day would feel that he had not merely to vote for the institution or corporation with which he was connected, but that he had to consider the advantages which the Scheme would secure to the coming profession.

The PRESIDENT said that as it was possible that he might be called upon to vote, he would state the sense in which his vote would be given. He looked upon the establishment of a Conjoint Board as a purely great national question of far more gravity and importance than appeared on the surface. If the Council was to be of any service to the public at all, all personal interests ought to be left out of sight. It was clearly always a dangerous thing for a great public institution to pass a vote of censure upon its own deliberate convictions. In one of their reports—one of the most valuable documents that was ever issued in this country by any educational body—the Council said—"We feel assured that the examination for licence will never be satisfactory without a Conjoint Scheme; and, therefore, it is for the public good to enforce it without delay." And then, in the same page, was this still more remarkable sentence—"We trust that the Council will appoint another committee to consider and report how the examinations for a licence in the three kingdoms can be best provided for, and then apply, if necessary, for Parliamentary powers to carry the recommendation into effect." Nothing that had passed had convinced him that the Council were wrong in expressing that opinion. There had been subsequent decisions to the same effect. The question naturally arose whether the Council, after acting so deliberately and using such strong words, ought to pass a vote acknowledging that what it did upon the former occasion was an error. Upon that point he would base no opinion; but he had come to the conclusion that a Conjoint Board would certainly be formed in England. They might be as sure of that as of any future human fact; and it would be a great national misfortune if the combination did not embrace the whole of the licensing bodies in this division of the kingdom. Personally, he had held but one opinion from the first time that his attention was drawn to the subject, which was in the year 1848, and at that time he urged upon his university that it should join in an examination with the College of Physicians. It would be a grave thing for the corporations to set up a conjoint examination without the universities. If the Council should pass a vote adverse to a Conjoint Board, it might break up the prospect of a national board, but it would not stop combination. At that moment he had not the remotest conception as to what was the best course to be pursued in Scotland and Ireland; but if England combined to form an examination, he was convinced that Scotland and Ireland would come to the wisest and soundest conclusion, whatever it might be.

The motion was then carried by 15 to 6.

At the request of Dr. PYLE, the names and votes were recorded. The division was as follows:—For the motion—Dr. Pitman, Mr. Quain, Mr. Bradford, Dr. Rolleston, Dr. Humphry, Dr. Pyle, Dr. Storrar, Mr. Macnamara, Dr. Leet, Dr. Apjohn, Dr. Quain, Sir William Gull, Mr. Simon, Mr. Teale, and Dr. Stokes. Against the motion—Dr. Haldane, Dr. Andrew Wood, Mr. Turner, Dr. Aquilla Smith, Sir Dominic Corrigan, and Mr. Lister. Declined to vote—The President, Dr. Fleming, and Dr. Thomson.

Dr. HUMPHRY moved as a substantive resolution the amendment which he had previously withdrawn, namely—"The Council desire to urge upon the several licensing bodies in Schedule (A) to the Medical Act, without delay, the importance of union or co-operation in conducting their examinations, so as to secure that every person who is admitted to the Register has been tested in medicine, surgery, midwifery, and the other subjects which are deemed essential by the Council."

The motion was seconded by Mr. LISTER.

Dr. THOMSON said that he declined to vote on Sir William Gull's motion because, while he might agree with one part of it, he did not think that they were warranted in passing the whole of it. He felt a difficulty in expressing his regret that the Conjoint Scheme had not been carried out in the three divisions of the kingdom. If Dr. Humphry's motion was intended merely as an addition to the last, he could not vote for it.

Mr. TURNER said that although he had voted against Sir William Gull's motion, he wished it to be understood that he was by no means opposed to the principle of combination.

Sir WILLIAM GULL thought that Dr. Humphry would see that the present proposition, if carried, would very much lessen the force of that which had just been passed.

Mr. LISTER stated that, like Professor Turner, he was in favour of combination.

Mr. SIMON thought that the Council ought to have an opportunity of considering the meaning of Professor Humphry's motion. It appeared to convey considerably less than the motion they had just agreed to.

Dr. ANDREW WOOD was not so sanguine as to the carrying out of the Conjoint Scheme as was Sir William Gull; but he wanted to press for quick action in the direction of any combination that could be made. It was better to have some combination than none at all. The present motion was a step in advance.

Mr. MACNAMARA was exactly in Mr. Simon's position. He wanted to understand the motion. If it was to postpone the Conjoint Scheme, he would vote against it; but if it was to strengthen the resolution just carried, he would vote in favour of it.

Dr. AQUILLA SMITH said that he should support the motion.

Dr. ROLLESTON remarked that those who were in favour of Professor Humphry's motion were pretty nearly the same persons as were recorded in the minority just now. That was a fact not without its significance. The present proposal seemed to be a half-way house to the last motion. If they had carried the greater, it seemed to be a waste of time and paper and ink to record the lesser.

Dr. HUMPHRY said that he wanted to carry the smaller as a help towards obtaining the larger. It would be noticed that those who voted for the last resolution were almost all members of the English bodies, and those who voted against it were members of the Scotch and Irish bodies. He did not in the least wish to abate the force of the last resolution. His object was not only to urge upon England that it should have its Conjoint Board, but also to urge upon Scotland and Ireland to combine to secure the double qualification, even if they did not think it to their advantage to form a Conjoint Board. This was a step which might be taken at once, while a combination of the bodies into a Conjoint Board in each division of the kingdom was not likely to take place immediately.

Dr. STORRAR said that he could not but look upon Professor Humphry's motion as a qualification of Sir William Gull's motion, and as he had voted for Sir William Gull's motion he could not vote for the present one.

The Council then divided, and the motion was negatived. The numbers were—for the motion, 10; against it, 12.

At the request of Mr. TURNER, the names were taken, as in the case of the last resolution. The voting was as follows:—Against the motion—Dr. Pitman, Mr. Bradford, Dr. Rolleston, Dr. Pyle, Dr. Storrar, Mr. Macnamara, Dr. Leet, Dr. Apjohn, Sir Dominic Corrigan, Dr. Quain, Mr. Simon, and Mr. Teale. For the motion—Mr. Quain, Dr. Humphry, Dr. Haldane, Dr. Andrew Wood, Dr. Fleming, Mr. Turner, Dr. Thomson, Dr. Aquilla Smith, Mr. Lister, and Dr. Stokes. The President declined to vote.

Dr. AQUILLA SMITH moved—"That the contemplated Conjoint Scheme for England shall be submitted to the General Medical Council, for its consideration and approbation, before the Scheme shall be brought into operation." He said that his object was to secure a safeguard as to the nature of the Scheme, and he thought that there was very good reason for the Council taking such a simple precaution as he proposed.

Mr. SIMON: It must by law come before the Council.

Dr. AQUILLA SMITH: That is a matter upon which I wanted a definite answer in order to satisfy the public.

The motion remained unseconded, and the Council proceeded to the next business on the programme.

The Report of the Executive Committee on the best means of conducting Visitation of Examinations, prepared in accordance with resolutions passed last year, was presented by Dr. QUAIN, and received. The Report recommended the adoption by the Council of the following:—

General Regulations for the Visitation of Examinations.

1. That when the Council shall at any time decide to resume the visitation of examinations, arrangements shall be so made that the series shall

be completed within a period of five years. Such arrangements shall not interfere with any special visitations which the Council may think fit to direct to be made.

2. That the arrangements for the visitations, and the appointment of the visitors, and all the details thereof, not otherwise provided for by the Council, shall be entrusted to the Executive Committee.

3. That, when necessary, the various examining bodies shall be requested to forward, before a fixed date to be named by the Executive Committee, to the Registrar of the General Medical Council, a statement showing the subjects of examination, as well as the days and hours at which the several examinations will be held by them during the ensuing year.

4. That the visitations shall be conducted by members of the Council jointly with others not members of the Council.

5. That the appointment of the visitors and the arrangements for the visitations be delegated to the Executive Committee.

6. That in the intervals between the meetings of the Executive Committee the arrangements for the visitations may be made by a sub-committee.

7. That the President shall give a formal appointment in writing to each visitor, not a member of the Council, with the seal of the Council attached.

8. That the visitors shall be paid for the discharge of the duties of visitation, for their travelling expenses and maintenance, at the same rate as that fixed by the General Council, and approved by the Lords Commissioners of her Majesty's Treasury, for attendance at the meetings of the Council.

9. That, as far as possible, the visitors shall be made acquainted with previous reports of the examinations they are about to inspect, and also of the remarks of the licensing bodies on those reports.

10. That the duties of the visitors shall be to inquire into and report to the Council as to the sufficiency of the examinations conducted by the several licensing bodies, as tests of the candidates' fitness to obtain the respective qualifications.

11. That the reports of the visitors shall be forwarded, with as little delay as possible, to the Registrar, who shall lay them before the Executive Committee, or the President, in the intervals of the meetings of the Committee.

12. The Executive Committee, or the President, shall forward the reports of the visitors to the several licensing bodies, to which such reports refer, for their consideration, with a request that the several bodies will make such observations and remarks thereon as they may think necessary, and forward the same with as little delay as possible to the Registrar.

13. That the reports of the visitors, and the remarks and observations upon them, shall not be made public until after they have been submitted to a meeting of the General Medical Council.

14. That a special minute-book, in respect to the visitations of the examinations, be kept by the Registrar of the General Medical Council.

The Council resolved themselves into committee for the consideration of the Regulations.

On the motion for the adoption of Paragraph 1,

Mr. Turner urged that the Council should not bind themselves to complete the series of visitations in five years. There were examining bodies which had such a very high character, and whose examinations were so well known, that it was not necessary that they should be formally visited, and their whole system gone into every five years.

Dr. Quain said that it would be most invidious to pass over some bodies, and not visit them at all. Besides, by visiting very advanced examinations, visitors might learn that which would be useful to them in dealing with inferior examinations.

Mr. Lister felt that there was great force in Dr. Quain's observations.

Dr. Humphry thought that the paragraph would commit the Council not to visit oftener than five years. It would be better to leave the time open.

Dr. Andrew Wood supported the clause. It showed that the Council meant to go on with the visitations of examinations. The period of five years was recommended because the Committee were anxious to avoid incurring the expense of visiting a large number in one year.

The paragraph was adopted.

On Paragraph 3,

Mr. Macnamara objected to the words "when necessary." He said that if an examining body was written to, and asked when its examination would take place, it would be put on the *qui vive*, and get its house in order. A calendar of all the examinations ought to be kept in the office of the Council.

The paragraph was amended to the following form:—"That the various examining bodies shall be requested to forward annually, to the Registrar of the General Medical Council, a statement showing the subjects of examination, as well as the days and hours at which the several examinations will be held by them during the ensuing year."

Paragraph 4 gave rise to a short discussion.

Mr. Macnamara had a strong objection to any member of the Council being a visitor. By being so, he would put himself in the position of judge and jury. He would first make a report, and then sit upon it. There would be a liability of his report being impugned by the examining body. He then moved as an amendment—"That the visitations shall not be conducted by members of the Council, but by visitors appointed from without the Council."

Dr. Leet seconded the amendment.

Dr. Andrew Wood said that he formerly held the same opinion as Mr. Macnamara, but, on looking at the terms of the Act, he thought that the Council could not abdicate the power of visitation.

Dr. Thomson thought that the time had now arrived when the Council could settle for itself who were the best visitors, and that there were some circumstances which disqualified members of the Council for the duty of visiting. He did not deny the advantage which there was, in the first instance, in the visitations being in part conducted by members of the Council; but now they would be best in the hands of independent persons.

Dr. Quain said that the subject was fully discussed when the original regulations were drawn up, and the present recommendation was taken from those regulations. He believed that much more consideration would be shown by the examining bodies to members of this Council than to other visitors. The practice now recommended had answered very well in the past.

Mr. Turner was in favour of the Council retaining for themselves the position of visitors.

Dr. Humphry could testify that, on the whole, the visitors had been thoroughly well received. The members of the Council, when acting as visitors, felt very great responsibility in the matter. He would ask the Council to pause before striking out a regulation which had worked well.

Dr. Fleming was satisfied, from what he had seen, that it was best that the Council should keep the matter in their own hands.

Dr. Storrar said that visitors, not members of the Council, were almost certain to be teachers, or gentlemen connected with rival schools. He considered that the arrangement which was made last year, to have a member of the Council associated with an outside visitor, was by far the best.

Dr. Rolleston said that the work of supervision of examinations was about the most difficult, and—to use an adjective very badly—the most "responsible" duty which the Council could undertake. The mere inductive, as well as the *à priori* evidence, was in favour of keeping things as they were.

The amendment was lost, and the paragraph was adopted as in the Report.

Paragraphs 5 and 6 were expunged.

The tenth paragraph was altered to the following form:—"10. That the duties of the visitors shall be to inquire into and report to the Council as to the sufficiency of the examinations conducted by the several licensing bodies, as tests of the candidates' fitness to obtain the respective qualifications, and that the Executive Committee frame rules to guide the visitors in forming a judgment on such sufficiency."

The other paragraphs were adopted without discussion.

The Council then resumed, and the Report, as amended, was brought up and adopted as a whole.

The meeting was then adjourned until twelve o'clock on the following day.

Tenth Day—Saturday, June 3.

On the assembling of the members this day, the first business transacted was the election of the Executive Committee by ballot, which resulted in the appointment of the following gentlemen:—Dr. Pitman, Dr. Humphry, Dr. Andrew Wood, Dr. Aquilla Smith, Dr. Quain, and Mr. Simon.

The Report of the Committee on Parliamentary Bills, which had been remitted to the Committee for amendment, was brought up by Dr. Thomson, and the Council resolved itself into committee to consider the Report.

Dr. Thomson stated that the Committee had felt a great desire not to raise any question upon which the Council might be considered as already having made up its mind or expressed a decided opinion. They had therefore thought it right to refer the Lord President of the Privy Council to the resolutions of June 26, 1875.

The first clause of Section 3 was unanimously adopted as follows:—"The Committee recommend that the General Medical Council, in answer to the request of the Lord President of the Privy Council that they would give an opinion on the Bill introduced by Mr. Russell Gurney, 'to remove restrictions on the granting of qualifications for registration under the Medical Act on the ground of sex,' beg in the outset to refer to the resolutions adopted by them on June 26, 1875, on the general question of the admission of women to the medical profession. A copy of these resolutions is again sent for the information of the Lord President."

Dr. Thomson moved the adoption of the following second and third clauses of Section 3:—"The Council have been advised that Clause 1 of Mr. Russell Gurney's Bill, as at present worded, might render it compulsory on the bodies mentioned in Schedule (A) to the Medical Act, to grant their respective qualification to all persons without distinction of sex. The Lord President will observe that, if the Bill operated in this way, it would be against the opiuion expressed by the Medical Council in the resolutions of last year: that it is undesirable to interfere with the free action of the universities and corporations in this matter; and, moreover, the Council are informed that Mr. Russell Gurney has no intention that the measure should be compulsory." He observed that Mr. Russell Gurney's Bill led the Council a step farther than they had proceeded last year, and it seemed quite impossible for the Council to shrink from the expression of some opinion with respect to what might be involved in the Bill. So far as he knew, the expression of opinion which came from the Council last year had met with general approval throughout the country. That opinion was, no doubt, a very guarded one, and provided for all the scruples which a considerable proportion of the profession and of the public felt with regard to the admission of women to the practice of medicine, while at the same time it provided a remedy for what many felt to be an injustice. It followed necessarily that the Council should take into consideration in what manner the admission of women, which was proposed in Mr. Russell Gurney's measure, could best be carried out. He did not think that a very large number of women would join the profession, nor did he think it desirable that a large number should do so. No doubt the great difficulty would be in reference to practical education and the providing of hospital instruction for women. He held it to be very inexpedient that young men and young women should be educated together. A great part of the difficulty might be avoided if it were possible to provide, at all events in the first instance, instruction in which women would be called upon to attend only upon women. The recommendation of the Committee amounted to this: that women should be admitted to a licence through any body that chose to receive them, and that the licence should qualify them to be placed on the Register; but the Committee wished to reserve discretionary power in the matter to all the bodies.

Dr. Pyle seconded the motion.

Dr. Humphry did not think that the clauses proposed really carried out the intention of the Committee. Under the conditions which the Committee proposed it would still be quite impossible for the greater number of the universities of England to grant any licence without distinction of sex, forasmuch as commonly a licence could not be obtained without a degree, and it was clear that a degree could not be granted to women. Moreover, it would not be in the power of any of the other bodies to grant a qualification degree without giviug the women a diploma, which diploma would admit to various privileges which were associated with it. To meet this objection he would move an amendment when the fourth clause of the section was under discussion.

Dr. Thomson said that two lawyers had been consulted on the clauses under consideration, and they gave it as their opinion that the clauses would carry out what was intended by the Committee.

Dr. Humphry said that that did not answer his point. He maintained that the College of Surgeons could not grant a licence admitting to the Register, except to members or to fellows. His proposal was to enable the licensing bodies to grant a qualification which would admit women to registration, but would not confer upon them the other privileges connected with the licensing bodies. The amendment which he should propose in place of Clause 4 of the third section was —"The Council would suggest that the object contemplated by the Bill might be attained by enabling any of the licensing bodies mentioned in Schedule (A) of the Medical Act to grant a qualification for admission to the Register to men or women, in addition to the qualification specified in that Act. But the granting of such additional qualifications should be at the discretion of the bodies concerned, and not obligatory; and that such additional qualifications should not, except at the further discretion of the bodies, carry with it any right to take part in the government of the universities or corporations, or any right or privilege beyond that of registration with a view to the practice of the medical profession. Further, that the courses of study and the examinations for such additional qualifications should be under the supervision and control of the Medical Council, in the same manner as the courses of study and examinations for the existing qualifications now are."

Dr. Andrew Wood rose to order. The subject covered by the amendment was not before the Council. The only question was, in what way they could prevent Mr. Russell Gurney's Bill being a compulsory one. But Dr. Humphry now came forward at the last moment with a suggestion as to how tho Council could facilitate the admission of women to the profession. They did not want to admit women, and it was not for the Council to point out a way by which they could be admitted; but, if a Bill was to be brought in to secure their admission, he would endeavour as far as possible to mitigate the evil which a bad Bill might bring upon them. Professor Humphry was proposing to do even more than Mr. Russell Gurney himself had proposed to do in favour of women.

Mr. Lister did not feel himself able to support Dr. Humphry's proposal. It would make a new title for men as well as for women. They were not required to invent a new title for men. It would be adequate to provide for the female sex. But surely there was a sufficient number of titles already. Many persons thought that there were too many. To create a new title for females seemed to be superfluous. In addition to that, Professor Humphry's proposal would change the whole character of the universities as licensing bodies, for they would be at once converted into a series of licensing bodies without any previous qualification in arts. As to the corporations, the admission of women would be as easy under the proposals of the Committee as under those of Dr. Humphry.

The President, referring to the statement of the third clause—"The Council are informed that Mr. Russell Gurney has no intention that the measure should be compulsory,"—said that he had ascertained that fact by direct communication with Mr. Russell Gurney.

Dr. Rolleston demurred to the principle that the Council were there only for the purpose of saving the rights and privileges of the profession. That was one duty of the Council; but they were also there to save the rights and privileges of the public, and he believed that the rights and privileges of the profession were, in the ultimate resort, the rights and privileges of the public. He regarded the admission of women as a matter both of justice and of expedieney; and justice and expedieney were, in the long run, coincident. If the Council allowed themselves to drop behind the tide of public opinion or requirement, they would be told at one time or another that they had made a mistake in abdicating their functions.

The motion was carried unanimously.

The fourth clause of Section 3 was moved by Dr. Thomson and seconded—"The Council would therefore suggest that Clause 1 should be so amended as to make it quite clear that the exercise of the extended powers which it is proposed to grant would be at the discretion of the bodies concerned, and not obligatory. The Council also are of opinion that the qualifications conferred should not, except at the further discretion of the bodies, carry with them any right to take part in the government of the universities or corporations, or any right or privilege beyond that of registration with a view to the practice of the medical profession."

Dr. Humphry then moved the amendment which he had read while the previous clauses were being discussed.

Dr. Rolleston seconded the amendment.

Mr. Simon took exception to the amendment. The Committee were called upon to state to the Government their opinion on Mr. Russell Gurney's Bill, and they had done their best to fulfil their commission in that respect. The amendment, however, appeared to open quite a new question. As a new member of the Council, he felt bound to defer to the opinions which were arrived at last year, for there must be a sort of continuity in the proceedings of the Council; but he must confess that he felt very much hampered by the fact that he differed from the conclusions which the Council arrived at last year. The opinion last year was almost unanimous that the medical profession was not a proper thiug for women, but the Council did not feel prepared to say that women ought to be excluded from the profession. The position of the Council last year was—"We do not say that women ought to be excluded by law from the practice of the medical profession, but we do think that they are not fit for all parts of it." And then, if the matter had been pursued, there would have been a proposal very much like that which Professor Humphry had now made, only with the trifliug difference that it would have

been said that there should be a new qualification *with* distinction of sex, instead of *without* distinction of sex.

Mr. TURNER: That was practically said last year.

Mr. SIMON said that there was not the slightest suggestion of a limit in the resolutions of last year. Besides, one of the cardinal points which were made by those who were moving in this matter was that women should enter the profession exactly on the same footing as men.

Dr. HUMPHRY said that the present proposal of the Committee was that women should come on an equality.

Mr. SIMON: They were of opinion that women ought to be admitted to the profession. Then, I think, we are not right in asking that the admission should be optional to the licensing bodies. If the Council think that the examination is all that is wanted, and that it should be identical with that of men, then I must say that we are not entitled to tell the Government that the admitting of women to practice should be optional. On the contrary, we must confess that the bodies ought to be called upon to admit them, and to admit them equally with men. There is no escape from that dilemma.

The amendment was then submitted to the meeting, and was supported only by the mover and seconder.

The original motion was carried by a large majority.

Dr. THOMSON proposed the adoption of the fourth section of the Report:—"By the communications from the Royal College of Surgeons of England and the Obstetrical Society of London, the question is raised as to the propriety of the registration of midwifery certificates, independently of qualifications to practise medicine and surgery. The Committee regard it as a serious error in the Medical Act that holders, whether male or female, of such independent midwifery certificates as may be granted under their charters by the Royal College of Surgeons of England, the King and Queen's College of Physicians in Ireland, and the Royal College of Surgeons in Ireland, are entitled to be registered under the Medical Act merely on such certificates. The Committee therefore are of opinion that it is desirable that this error of the Medical Act, which is calculated to be injurious to the public interests, should be corrected by legislation." He said that he thought that the feeling was quite unanimous that the existence of such a partial qualification as a midwifery certificate was inexpedient and injurious to the profession and to the public. There might be circumstances in the case of women practising midwifery in which the Council might approve of a partial qualification of that kind, but he thought that no one would be found to defend the existence of such a partial qualification for men, and its admitting to the Register. The bodies with which such partial qualifications were connected might have exercised the right of granting them in one or two instances, but he was glad to know that the general disposition of those bodies had been to throw as great an obstacle as possible in the way of further granting them.

Mr. SIMON seconded the motion. He quite agreed with the section; but, although he thought that the existing midwifery qualifications held separately from other qualifications were objectionable, still he was disposed to regard that as the direction in which women who sought for admission into the profession ought to look for employment. Just in proportion as he regarded women as wanting in the general capacity for medical and surgical practice, in that proportion he held that they might be admitted to some degree of responsibility in what he might call midwifery and nursery practice. He was reminded by the chairman of the Committee that those who were agitating would not be satisfied with anything short of equal rights with men in this matter. He should be glad if the Council should see fit to appoint a committee to consider during the recess whether some qualification might be devised, answering to what they might fairly consider to be female capacities for the practice of the profession.

Dr. AQUILLA SMITH could not agree with the last sentence of the section. Speaking for the College of Surgeons in Dublin, he could state that no inconvenience had ever resulted from the course which the College took. It was a rule never to grant an examination or a certificate in midwifery to any person who had not already a previous qualification.

Dr. ANDREW WOOD said that he supposed that there was no man at that table who did not hold that every licence to practise ought to include examination in midwifery. The fact of the midwifery licence being registered separately seemed to point to the idea that there might be certificates in medicine and surgery which did not include examination and licence in midwifery.

Sir DOMINIC CORRIGAN said that the College of Surgeons in Ireland gave a qualification in surgery without an examination in midwifery. Notwithstanding all the laws, and regulations, and views of the Council, the fact was that there were many women—at least in Dublin—who made a very good income from the practice of midwifery. Would not the wisest plan for the Council be to follow public opinion, instead of flying in the face of it, and to give an assurance to the public that the women who were allowed to practise in midwifery were qualified in some sense or other. He held that the licensing bodies should have power to examine in midwifery when a woman presented herself for examination, and that a separate register ought to be kept for the women who had been examined and had obtained certificates.

The fourth section of the Report was carried unanimously.

Sir DOMINIC CORRIGAN then moved that the following words be added as a rider to the fourth section:—"The Committee further recommend that a separate register should be instituted for women who have been examined in midwifery and have obtained certificates from any of the corporate licensing bodies included in Schedule (A) to the Medical Act."

Dr. AQUILLA SMITH seconded the motion.

The PRESIDENT said that if this proposal was adopted it would be a most happy solution of a most complicated and difficult question; and instead of the Council being behind the public, it would take the public by surprise that it had so solved the whole matter.

Dr. ROLLESTON said that if the registration of women was merely for the purpose of enabling them to practise midwifery, he did not think that this concession would satisfy the legitimate demands of the female sex and of their advocates throughout the country. The proposal would not meet the circumstances of the case. If midwifery was to comprise the general diseases of women, well and good. In the evolution upwards of sensitiveness among women, they had come to demand that they should be attended by persons of their own sex in parturition and in diseases not strictly connected with it.

Dr. THOMSON, while admitting that there was much truth in what Dr. Rolleston had said, suggested to the Council that they should not attempt to define the practice of women in parts of the profession other than midwifery.

Mr. SIMON entirely agreed in the object which Sir Dominic Corrigan had in view, which was that the public midwife might be a tested person. He believed that the Council would have to express itself more definitely than it did last year.

Mr. TURNER remarked that the addition proposed by Sir Dominic Corrigan was in entire accordance with a resolution come to by the Council last year, which was passed upon a very admirable report drawn up by the President some years ago.

Sir DOMINIC CORRIGAN, in reply, objected to Dr. Rolleston's suggestion that the practice of women should include the general diseases of women. He did not think that the Council ought, even in the most indirect way, assert that they were of opinion that women were fitted to treat the diseases of women. The diseases of women scarcely differed from those of men, except in name. Parturition he did not regard as a disease. As to women desiring to be attended in their diseases by their own sex, as Dr. Rolleston had stated, he (Sir Dominic) knew that such a thing would be their horror.

The motion was carried unanimously.

The following fifth section of the Report was unanimously adopted upon the motion of Dr. THOMSON, seconded by Dr. STORRAR:—"The Committee are of opinion that the communication on the subject of State medicine qualifications from the British Medical Association should be acknowledged; and that the Association should be informed that the subject of a qualification in State medicine or public health has long occupied the attention of the Council. The Committee would recommend the Council to express their opinion that any degree or diploma in State medicine should not of itself (that is to say, apart from any of the present qualifications) constitute a claim to be enrolled in the Medical Register. Whether the diploma, though not separately registrable, might properly be admitted to registration on the footing of an additional qualification is a question which, in the opinion of the Council, does not at the present time admit of being brought to a satisfactory practical settlement."

Dr. THOMSON stated that, since the Report was referred back to the Committee, verbal alterations had been made in the second clause of Section 2, which was adopted when the Council were dealing with the Report on May 30. The

second clause would, therefore, be as follows:—"As regards the provision in Mr. Gibson's Bill, which proposes to permit the registration under the Medical Act of a degree of bachelor of surgery from any university of the United Kingdom legally authorised to grant the same, the Committee recommend that the Council express its opinion in favour of such registration."

It was then moved by Dr. Thomson that the following words be substituted for the third and fourth clauses:—"As regards the registration under the Medical Act of a diploma in State medicine, as proposed by Mr. Gibson's Bill, the Committee recommend that the Council should express their opinion that any degree or diploma in State medicine or public health, which may be granted by any of the bodies mentioned in Schedule (A) to the Medical Act, should not of itself (that is to say, apart from any of the present qualifications) constitute a claim to be enrolled in the Medical Register." Dr. Thomson said that the object of the Committee in this alteration was to bring the declaration of the Council under Section 2 as nearly as possible into conformity with what had been already determined under Section 5.

Mr. Turner seconded the motion.

Mr. Macnamara thought that it was very undesirable to alter the third and fourth clauses of the section after the consideration which was given to them the other day. He could not see the object in changing words which were abundantly clear.

Dr. Thomson said that the Committee had bestowed very great care upon the clauses. They had seen with regret the difficulty into which the Council was brought, on the previous occasion when the Report was considered, by the adoption of the phrase "additional title." That term, in fact, involved the large question whether titles were to be entered on the Register.

Mr. Simon reminded the Council that he had stated at the last discussion that they were face to face with the possibility of nineteen new qualifications being granted. The Committee, on reconsidering the question, came to the conclusion which the Council had affirmed already, that the question of the registrability of the diploma in State medicine did not admit of satisfactory settlement. But what was now proposed was but an affirmation of what they were clearly agreed upon, which was that any degree or diploma in State medicine or public health should not be separately registrable.

The motion was ultimately carried.

It was also resolved—"That the following sentence be added to the foregoing paragraph:—'Whether the diploma, though not separately registrable, might properly be admitted to registration on the footing of an additional qualification is a question which, in the opinion of the Council, does not at the present time admit of being brought to a satisfactory practical settlement.'"

The Council then resumed, and the Report as amended was brought up and adopted as a whole.

The following resolutions were moved by Dr. Andrew Wood, seconded by Mr. Turner, and unanimously adopted:—"That the Report on Parliamentary Bills, so far as it relates to Mr. Gibson's Bill, Mr. Russell Gurney's Bill, and Mr. Cowper-Temple's Bill, be transmitted to the Lord President of the Privy Council." "That copies of the resolutions of the General Medical Council in answer to their communications be addressed to the Royal College of Surgeons of England, the Obstetrical Society of London, the British Medical Association, and to the Secretary of the Foreign Graduates' Association."

The Council then adjourned to twelve on Monday, the time being fixed at two hours earlier than usual, in order to give an opportunity of completing the work of the session on that day.

Eleventh Day—Monday, June 5.

The Council assembled at twelve o'clock.

Dr. Haldane moved the following resolution, which stood on the agenda at the beginning of the session:—"That it be recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases of decided ignorance in general education displayed by candidates, with the name of the board or boards before which the preliminary examinations have been passed; and that the licensing bodies be requested to transmit such reports to the Registrar of the General Medical Council." He said that at that stage of the business his remarks should be very brief. No doubt would be entertained of the importance of the preliminary examination, and the Council had shown the importance they attached to it by turning their attention to the subject at a very early period of the business. They had felt that the only way to raise the social status of medical men was to raise the standard of education. The efforts of the Council in this respect had been fully appreciated both by the medical profession and by the public, but, although good had been done, he was afraid that the benefits derived from the efforts of the Council had not been in proportion to their goodwill. Having acted for several years as an examiner both in preliminary and in professional subjects, he had had two conclusions forced upon him. The first was, that of the candidates who presented themselves for preliminary examination a considerable proportion were decidedly deficient with regard to general education; and the second conclusion was, that a considerable number of students were admitted on the Register whose attainments in general education did not justify their being so admitted. In Edinburgh there were two boards for preliminary education. One examination was conducted by the University, and the other was a conjoint examination conducted by the College of Physicians and the College of Surgeons. The conjoint board consisted of one or two examiners from each College, and one or two additional examiners who had invariably been professors in the University. The standard for the preliminary education was not high, but it was uniform. It was the minimum fixed by the Council. There were five obligatory subjects—namely, English, arithmetic, algebra, geometry, and Latin; and there were four optional subjects—Greek, French, German, and natural philosophy—of which the student might select one. This was certainly not too high a standard; but it was a melancholy fact that a very small proportion of the candidates were able to pass the examination on the first trial. Some had to appear three times or even oftener. The knowledge of English could only be said to be moderately satisfactory. Many candidates were rejected every year for spelling, grammar, and composition. The attainments in arithmetic, algebra, and geometry could not be said to be satisfactory, the large majority of candidates being merely just within the line which enabled them to pass. These were subjects in which a certain amount of knowledge could be crammed more easily than in other subjects. Rules were learnt by heart, and propositions were committed to memory, and a considerable proportion of candidates passed by this means. With regard to Latin, the deficiency was positively deplorable: not more than 20 or at most 25 per cent. passed the Latin examination on the first occasion. Of the optional subjects there were two very seldom chosen—namely, Greek and German,—but the students who selected those subjects generally passed; the reason being, no doubt, that no man presented himself with those subjects unless he felt that he had a moderate knowledge of them. In French and natural philosophy the results were different. Many students had a smattering of both subjects, and they felt themselves entitled, as they expressed it, to take a "shy" at one of them. The second point to which he had alluded was that there were admitted on the Register a considerable number of students whose attainments in general education did not justify their admission. The examiners had an opportunity of judging from the written exercises of the candidates in English and Latin. They committed mistakes in spelling of a very glaring character. How it happened that such persons were admitted as students on the Register, he did not profess to understand. He did not think, however, that it was from any desire on the part of the bodies to evade the wishes of the Council. He rather believed that it was through a sort of desperation, and that the examiners felt that, if they rejected every man who ought to be rejected, comparatively few would be led to study for the medical profession. Be this as it might, there could be no doubt of the fact of their being admitted. The true remedy for this state of matters, of course, existed in the elevation of the general education of the country, but with that the Council could not interfere. The only other remedy which he could see was the introduction of a system of visitation such as had been proved to be so successful in the case of the professional examinations. He did not propose that this Council should send visitors to the preliminary examinations, but he suggested that the different licensing bodies should visit one another. Many students passed the preliminary examination in one body and the professional in another. He therefore recommended that in the cases where candidates for the professional examination

displayed decided ignorance in general subjects, the examiners should be requested to report on the matter to the various licensing bodies, and that these bodies should be recommended to transmit to the Council the reports in question or a statement of facts.

Dr. Storrar seconded the motion.

Dr. Pitman was very sorry that Dr. Haldane had thought it right to bring before the Council, at that late period, a resolution which wanted very careful consideration before it was adopted. According to the motion, examiners in professional subjects would have to report to the licensing bodies on facts which had been passed over four years previously, as four years would elapse between the preliminary and the final examinations. He questioned whether the examiners in professional subjects were the right parties to pass any criticisms on the papers in general education which had been accepted four years previously. He saw great objection to passing a criticism so long as four years after the preliminary examination had taken place. If any exceptions were to be taken, they ought to be taken at the time of the student's passing. As to the report being made in cases of "decided ignorance," he thought it would be very difficult to decide what was "decided ignorance." The only thing in which the decided ignorance would be ascertained would be the English language. The candidates could not show any decided ignorance in Euclid and mathematics at the final examination. He believed a great deal of delicacy would be exercised by the examiners, and that the licensing bodies would not arrive at the truth. If any blot was to be detected, it ought to be detected at the time that the young men presented themselves for their preliminary examinations, and not afterwards. The licensing bodies would have great difficulty in carrying out the recommendation contained in the resolution, though he fully admitted the importance of the subject.

Dr. Andrew Wood was unable to agree with Dr. Pitman on this subject. Dr. Haldane had said very truly that a number of the men who came up for professional examination showed the grossest ignorance in the preliminary examination, and they could not write or spell the English language. The embarrassment which this caused to the professional examiners was very great. Dr. Haldane's contention was that if men forgot all their general education in four years, that education must have been of a very spurious kind; and the motion showed a desire to find out where the candidates had passed their examination in general subjects. If it was found out, for example, that any of the bodies whose names were in the list as qualifying for preliminary examination were again and again sending out men who were deficient in the preliminary subjects, it would be the duty of the Council to write to those bodies, and represent that such was the case in order that they might improve their examinations. Dr. Haldane pointed out a very simple and proper remedy. It was the duty of the Council to select the list of boards who should qualify for examination in preliminary matters, and the motion provided that the licensing bodies should transmit to the Council any information which they might ascertain with regard to deficiencies in the preliminary examination.

Sir Dominic Corrigan moved as an amendment—"That the only true guards against decided ignorance in general education displayed by candidates will be found in the laying down of a curriculum, specifying that examinations in general education will be held at certain times, in like manner as adopted by universities in their course of arts, and that failure in any one of these examinations should incapacitate candidates from proceeding to the next examination." He entertained very serious objection to Dr. Haldane's resolution, and he believed that all such attempts were "makeshifts." It would be utterly impracticable to carry out the resolution. He remembered a speech of Lord Granville when the new curriculum of the London University was coming into operation, and when very great fault was found with that curriculum. The first year that it came into operation 50 or 60 per cent. were rejected. Lord Granville stated a difficulty which he (Sir Dominic) thought applied in this case. His Lordship said that it was very hard to reject a man who displayed a thorough knowledge of the science into which he was about to enter, simply because he displayed a want of knowledge of English or Latin. According to the resolution, the examiners would have to possess a knowledge not only in one of the preliminary branches, but in all. How could they report ignorance in a subject unless they had examined the candidate? He agreed with what Dr. Pitman had said—namely, that if there was to be an objection to the preliminary education, it ought to be made at the time. It would not be fair, at the end of four years, to reject a man because he did not possess a classical knowledge of Latin. The examiners would not feel themselves justified in reporting a man for decided ignorance when he exhibited a fair knowledge of his profession; and a man might have a very fair knowledge of medicine and surgery, and still know very little of Latin and Greek.

Dr. Aquilla Smith seconded the amendment. He believed that the object which Dr. Haldane had in view was one of the highest importance and deserved the attention of the Council; but, with Dr. Pitman, he believed that to carry it out at the present time would be utterly impracticable. It would be exceedingly difficult at the qualification examination to find out where the preliminary examination of a candidate had been passed. But supposing it was found out, and it happened that the student had passed his preliminary examination at Montreal or Melbourne, how could the Council exercise any control on the examining board in those places? He believed that the motion involved the reconsideration of the whole question of preliminary education. Perhaps one of the first duties of the Council at its next session would be to take up the whole subject, but it was quite impossible to deal with it in the limited time which remained during the present sittings.

Dr. Haldane said that, with the consent of the Council, he would withdraw the resolution. It was perfectly evident that at that period of the session any motion which could be passed would be most unsatisfactory. His resolution was, however, in the programme of business which was sent to the members before the session began. He still considered the subject one of importance, as he perceived the other members held it to be. He would, therefore, substitute the following resolution:—"The General Council desire to direct attention to the important fact that many candidates still enter on their professional studies who are very deficient in preliminary education."

Sir William Gull seconded the motion, believing that thus to deal with the subject was all that the Council could do now. He would suggest the addition of the words "as evidenced by the visitations." It was of the greatest importance, no doubt, that, if their profession was to maintain its position in society, the gentlemen entering it should be intelligent and instructed. He thought intelligence must be tested by the way in which the questions were answered. Years ago he stated to a Committee of the Houses of Lords and Commons that he believed that the preliminary education should be of such a kind as to test the intelligence of the students as far as possible, as well as their acquirements; and that, if it was possible, their intelligence should be tested in such a way as to exclude men who were obviously unfit for such a profession as medicine, but who might make very useful members of society in some other calling. He believed that, if such a test was acted upon, about 33 per cent. of the candidates would be cut off.

Mr. Turner: They are.

Sir William Gull: I am very glad to hear that. These preliminary educations show us the stuff of which medical men are to be made, and unless your material is good in the first instance it is in vain to work on it afterwards.

Leave was granted by the Council to Dr. Haldane to withdraw his first motion, and to substitute for it the words which he had just proposed.

The President then asked Sir Dominic Corrigan whether he would withdraw his amendment.

Sir Dominic Corrigan: Certainly not. My amendment now becomes an original motion.

Dr. Haldane said that, that being the case, he would move his substituted resolution, which had been seconded by Sir William Gull, as an amendment upon Sir Dominic Corrigan's motion.

Mr. Macnamara remarked that the stringency of preliminary examinations had increased everywhere, and with a most wholesome result. He hoped that this question would be one of the first dealt with next session.

The amendment was carried.

The Report of the Committee on Visitations was presented by Dr. Humphry, chairman of the Committee. This document was to the following effect:—

The Committee on the Visitations of Examinations made in 1873-74-75, and on the Remarks of Licensing Bodies on the Reports of the Visitors, have read over the reports and remarks relating to the following bodies since the former part of their report, presented at the last meeting of the Council (June 25, 1875):—14. Royal College of Physicians, London—April,

1875. 15. Royal College of Surgeons, England—April, 1875. 16. University of Oxford—December, 1875. 17. University of Cambridge—December, 1875. 18. University of Durham—April, 1875. 19. University of Edinburgh—April, 1875. 20. University of Aberdeen—April, 1875. 21. University of St. Andrews—April, 1875. 22. King and Queen's College of Physicians in Ireland—April, 1875. 23. Apothecaries' Hall, Dubliu—April, 1875. 24. Trinity College, Dublin—June, 1875. The examinations of all the licensing bodies in the United Kingdom have been more or less completely visited in the years 1873-74-75, with the exception of those of the University of London; and remarks upon the reports of the visitors have been received from all the bodies with the exception of the Queen's University, Ireland. The Committee has continued the plan adopted in the former part of its Report, viz., it has first taken out from these reports those statements of the visitors, and the remarks made upon them, which appear to require special attention, and has then referred to some general questions which arise out of the reports, and to which the Committee consider the attention of the Council should be directed.

The Report then contained a digest of the reports of the visitors to the bodies just enumerated, and concluded with the following:—

General Considerations.

The Committee are able to repeat the statement, made in the former part of this Report last year, as to the good spirit in which the visitations have been conducted, and in which they have also been generally received by the several bodies—a spirit corresponding with that in which they were instituted by the Council. A large amount of valuable information has been obtained, many changes and improvements in the several examinations have taken place, or are likely to be carried out, in consequence of the suggestions which the visitors have made. Indeed, there is scarcely any one among the licensing bodies which has not thus been led to institute, or which does not contemplate instituting, more or less important improvements in its examinations. The Committee are strongly of opinion that it is of the utmost importance, now and in future visitations, to maintain a spirit of friendly co-operation between the licensing bodies and the Medical Council, believing that more benefit will be effected by it than by severe criticism and rigid resolutions.

The examinations conferring licences to practise which are still incomplete are as follows:—

At the College of Surgeons of England there is no examination in chemistry, materia medica, midwifery, or forensic medicine.

At the Society of Apothecaries, London, there is no examination in surgery.

In the examination for the licence at the King and Queen's College of Physicians, Ireland, there is no examination in surgery.

At the College of Surgeons of Ireland there is no examination in midwifery.

The Committee are of opinion that the attention of the several bodies should be called to the above omissions, and to the recommendation v. 1 of the "Recommendations" of this Council.

A clinical examination in surgery is given by all the bodies which grant a degree, diploma, or licence in surgery. It forms part of the examination for a degree, diploma, or licence in medicine, at the University of Oxford, at the Queen's University, Ireland, and the University of Scotland, where the examination for M.B. admits also to M.C.

An examination in clinical medicine is held by all the bodies giving a degree, diploma, or licence to practise medicine, and by the Faculty of Physicians and Surgeons, Glasgow, but not by the Colleges of Surgeons of England, Edinburgh, or Ireland.

The Committee are of opinion that examination on medical and surgical cases, as well as a written and oral examination in medicine and surgery, should form part of every examination for a licence to practise, and recommend that a notice to that effect should be sent by the Council to each of the several bodies in which this is not the case.

At some clinical examinations the patients are brought to the institution. In others, the candidates are taken to an infirmary. By the former plan the range of cases is limited to those which admit of being taken to the institution. Last year the Council, without recommending that every candidate in anatomical examinations should of necessity, and without exception, be called upon to perform actual dissections, did nevertheless recommend that every such candidate should be given to understand that he may be required to submit to that test, so this year the Committee recommend that candidates for licences should understand that they are liable to be taken for examination into the wards of a hospital.

The Committee desire to call attention to the fact that the number of candidates for some of the examinations were very few, in some instances only one. The Committee think it desirable in such cases that the licensing bodies should endeavour to combine their examinations with those of other bodies. In addition to other advantages thereby attained, a proportionate saving of labour and expense, both to the licensing bodies and to this Council, would be effected.

Other points are suggested by the Reports and Remarks, such as the details of the mode of decision by the examiners, which are very various; —association of honours with pass examinations which is adopted by most of the universities in Scotland, and by the Queen's University in Ireland; —the division of the subjects into two or more examinations;—the conduct of the written oral and clinical examinations in the same subject by the same persons;—the number of written questions, and the requirement of answers to all the questions. These, however, the Committee do not think it necessary to take into consideration at this time.

Dr. Humphry said that it would not be necessary for him to occupy the attention of the Council for very long, forasmuch as the Report of the Committee was, on the whole, highly satisfactory. The visitations were commenced by the Council in no censorious spirit, but with the simple desire to ascertain the facts, and to assist the licensing bodies to obtain information. The spirit in which the visits were commenced had been carried out by the visitors, and on the whole had been responded to by the licensing bodies. The representations of the visitors, and the remarks of the licensing bodies upon those reports, were, on the whole, eminently satisfactory to the Council, and creditable to those who had been concerned in this great and most important work. There was scarcely one of the licensing bodies which had not responded to the reports of the visitors in such a way as to alter their examinations in conformity with the views of the visitors, and the alterations had in some respects been very important. Whereas, formerly, there were several licensing bodies who were conducting their examinations exclusively, or almost exclusively, by their teachers, that practice could scarcely be said to exist in any body at the present time. Outside examiners had been added to the professorial staff, and placed on an equal footing with them. The only licensing body in which this had not been done was Trinity College, Dublin, but the Committee inferred from the answer of that body that it was their intention to make an alteration. The reports being so satisfactory, the Committee had felt that it would be wise not to press any other recommendations or regulations at the present time, but to leave the existing regulations to work their quiet way. It was the desire of the Committee, not that the Report should be adopted, but that it should simply be received and entered on Minutes. The Committee did not wish the Council to hold itself responsible for the analysis which had been made of the reports of the visitors, or for the opinions which had been expressed in the document; but they desired that the Report should remain on record for the future consideration of the bodies which would undoubtedly see it, and for the guidance of future visitors. On the whole, the Council might rest satisfied that a safe test was given in the various required subjects. He did not mean to say that the Committee felt that the examinations were entirely satisfactory. He believed that everyone must feel that examination and education were so associated with one another that examination could scarcely be said to be satisfactory till education was satisfactory too. At the present time, and undoubtedly for some time past, examination had become, not only in the medical profession, but throughout the country, an increasing force. And it might now be said to be really the great lever of education. Such as examination was, such undoubtedly would education be; and this fact threw the very highest responsibility upon those who undertook the work of examination, for they undoubtedly were the regulators of education. The great work which the Council had to do at the present time was to exercise the most scrupulous and cautious care as to the manner in which examinations were conducted. His own feeling was that at the present time the tendency of examinations was to extend the area too much in one direction, and not to extend it sufficiently in another. The remarks which had just fallen from Sir William Gull were precisely in accordance with his own feelings on this subject. There was a tendency to exact too much, and to require too large an amount of material to be crammed into the mind during the process of education, and to be extracted from it in the process of examination. There was a tendency to attend rather too little to that which was, after all, the great object of education—namely, the strengthening of the mind to deal with the material which it had before it. The danger lay in the direction of exacting too much *knowingness*, and too great an accumulation of facts, and of failing to require sufficient real *knowledge* of the facts and capacity for dealing with them. But here he was indicating what he believed to be an extreme difficulty of examination. He had conducted various examinations himself with the feeling nearly always before his mind that he was not conducting them really satisfactorily. One distressing fact which he had always encountered, as an examiner, was that when a question had entrenched upon the ground of intelligence, and the capability of the candidates to deal with the subject before them, the answers had been lamentably insufficient. He felt, therefore, that it would be a very long time before examinations would be conducted in such a way as to test the student's capabilities. It was the duty of examiners to feel, not simply that they had informed themselves respecting the acquirements of the candidates, but that they had a greater and more important task. The Report pointed to the combination of several bodies in whom the number of candidates was very small. Such a combination would be a vast saving of time, expense, and labour; and, at the same time, there would be a better result. He believed that it was unnecessary to bring forward any special resolutions in connexion with the Report. There were still examining bodies which did not conduct complete examinations. One of the great and important desires of this Council was, that every man who was admitted on the Register should have been tested in the various subjects which were considered essential to the practitioners in medicine and

surgery; and in reference to that point he had placed several resolutions on the programme. He had placed them there with some hesitation, and with the feeling that it might be desirable to withdraw them. Bearing in mind the resolution which was passed only on the previous day of the sittings, and bearing in mind that the resolution which was proposed by himself, and which went in the same direction as those which he had placed on the programme in connexion with the Report, had been rejected, and that it was thought that a resolution of that kind would tend rather to militate against the formation of Conjoint Boards and to weaken the resolutions of the Council, he had thought that the same feeling might arise with regard to the resolutions which he had put on the programme; and, therefore, he had deemed it a better course to simply ask the representatives of the several bodies which were named in these resolutions to call the attention of their respective boards to the deficiencies which were enumerated. Nearly all the other points to which attention needed to be called were embodied in the Report of the Recommendations Committee, of which he happened to be a member; and, therefore, he held it unnecessary to bring forward any motion except that the Report be received and entered on the Minutes.

The following are the motions which Dr. Humphry had placed on the programme with the intention of moving them as a sequel to the Report of the Committee:—(*a.*) "That the Report of the Committee be received and entered on the Minutes." (*b.*) "That the attention of the Society of Apothecaries, London, be called to the wants of any examination in surgery, in the examination for the licence of the Society, and that the Society be urged to take measures to supply this important deficiency without delay, either by instituting an examination in that subject, or by making arrangements with some other licensing body or bodies which shall secure the same object." (*c.*) "That the attention of the College of Surgeons, Ireland, be called to the want of any examination in midwifery, in the examination for the letters testimonial of the College, and that the College be urged to take measures to supply the deficiency without delay, either by instituting an examination in that subject, or by making arrangements with some other licensing body or bodies which shall secure the same object." (*d.*) "That the attention of the King and Queen's College of Physicians in Ireland be called to the want of any examination in surgery for the licence, and that the College be urged to take measures to supply the deficiency without delay, either by instituting an examination in that subject, or by making arrangements with some other licensing body or bodies which shall secure the same object." (*e.*) "The attention of the Royal College of Surgeons of England be called to the want of any examination in chemistry, materia medica, and forensic medicine, in the examination for the membership of the College, and that the College be urged to take measures to supply these deficiencies without delay, either by instituting examination in these subjects, or by making arrangement with some other body or bodies which may secure the same object." (*f.*) "In reference to the last three clauses of the reply of the professors and teachers of Trinity College, Dublin, the Council desires to call the attention of the College to the Recommendations, chapter v., 25, of the Council, which indicates the subjects in which it has been determined that the knowledge of every practitioner whose name appears on the Register should be tested."

Dr. Rolleston, as a member of the Committee, rose to second the motion for the reception of the Report. He hoped that every member of the Council would give his best attention to the matter, and that they would all meet again next year ready to take it up in the very forefront of their deliberations. They could protect the public more by means of examinations than by any other means. He felt constantly that they had to protect the public in the examinations—firstly, by a due amount of stringency, and, secondly, by taking care that they did not, by means of over-stringency, crush genius or interfere with the due supply of medical practitioners. In all legislation they had to deal with the mass. He did not coincide with those persons who wished to do away with examinations altogether; but he believed that examinations, like most institutions, had an evil as well as a good side. He quite sympathised with the belief in the vulgarising effect which concentrating too much attention upon examinations had upon a great number of students. A friend of his had stated that he had never met with any student who cared for any knowledge unless it related to a subject upon which he would have to be examined. He (Dr. Rolleston) could not go so far as that, for he had been fortunate enough to meet with many students whose desires for knowledge were not confined to the subjects upon which they were to be examined.

Dr. Apjohn, whose remarks were almost inaudible at the reporters' table, was understood to say that at the examination for the bachelor of medicine degree in Trinity College, Dublin, persons who were not teachers in the school took part in the examinations.

Dr. Aquilla Smith moved that the Council adjourn for ten minutes.

Dr. Andrew Wood rose to order. He said that the motion before the meeting was simply that the Report be received and entered on the Minutes. There was no motion that the Report be considered.

Mr. Macnamara: I am prepared to move, in consequence of errors in the Report, that it be not entered on the Minutes.

The motion for adjournment was negatived, but was immediately re-proposed by Sir Dominic Corrigan and carried by a majority.

On the Council re-assembling,

Dr. Aquilla Smith said: I claim the right to make a few observations on the remarks of the Royal College of Surgeons in Ireland, in respect to the report of the visitors on their examination.

Mr. Simon: I rise to order. This would involve a discussion of the particulars of the Report. If the particulars of a report are to be discussed on the general motion for its reception, it is quite evident that we are entering on a course of discussion which would require adjournment till next year. Unless the Council sees its way to the acceptance of the simple motion for entry on the Minutes, I venture to submit that the adjournment of the whole subject—even of this first motion—becomes quite indispensable. If the debate in detail is to be continued, I beg leave to move that the present discussion be adjourned till next year.

Dr. Aquilla Smith: Can Mr. Simon, or any member, put me out of court by moving the adjournment? I am speaking upon Dr. Humphry's motion.

The President said that the merits of the details of the Report were not before the meeting.

Mr. Quain said that the visitors to the College of Surgeons in Ireland had reported upon the examination of that body, and the College of Surgeons had made some observations upon the report of the visitors. Now, Dr. Smith, as one of the visitors, wished to answer those remarks. He apprehended that the Council could not hear any reply to the College of Surgeons from an individual visitor. If the discussion between the College of Surgeons and the visitors was to be repeated now by the representative of the College of Surgeons and one of the visitors, it would be a very painful matter for the Council. It would be much better to pass the motion for receiving the Report.

The President said that it was clearly in the function of any member of the Council to speak on the motion for the reception of the Report, but not on the details of the Report.

Dr. Aquilla Smith said that he had no intention at all to discuss the general scope of the Report, but there had been very severe charges brought against him in reference to the report of the visitation of the examination of the College of Surgeons. Those charges had been published for nearly two years, and he had never had an opportunity of repudiating them.

Dr. Storrar: That is not the question. We cannot entertain that.

Dr. Aquilla Smith: It affects the future interest of this Council, and if I am not allowed to repudiate the very gross charges which have been standing for nearly two years against me, I shall certainly not act as a visitor again.

Sir William Gull suggested that Dr. Smith should move for a committee of the Council to inquire into the charges.

Dr. Aquilla Smith: I claim the right as a member of the Council, and as a visitor, to answer the charges. Very gross charges were made against me two years ago, which I have never had an opportunity of answering. The report of the visitors was sent in 1874 to the Royal Colleges. They drew up their remarks and sent a copy to the Registrar, and they printed their remarks and sent them amongst the members of their own College of Surgeons; and they printed them in the *Dublin Medical Press* of September 6, 1874. They contained very gross charges against me. No copy of them was furnished either to myself or to my colleague, Mr. Power. The

whole of the charges rest upon a garbled quotation of a sentence in our report.

Mr. Simon: I move that the debate on the reception of the Report be postponed to next year.

Dr. Quain stated that on the motion of Dr. Parkes last year the discussion of the Report of the Visitors was adjourned to this year.

Dr. Humphry observed that Mr. Simon's motion would be a continuance of Dr. Parkes's motion last year.

Mr. Turner pointed out that the present Report before the Council was not merely a report of the visitations to the bodies mentioned in it, but it really incorporated, as it were, the conclusions arrived at from the reports of the examinations visited in the previous year. As a personal matter, he felt that Dr. Smith had a claim upon them to give him an opportunity of explaining.

The President said that the Council would, perhaps, allow Dr. Smith to make his personal statement upon the understanding that he should not open the whole question of the Report.

Dr. Aquilla Smith, whose observations were very imperfectly heard, said that the matter was not altogether a personal one, but affected the general rights of the visitors appointed by the Council. The remarks of the President and Council of the College of Surgeons in Ireland upon the Report of the Visitors on the Examinations held on January 13, 1874, and following days, would be found on page 32 of the Remarks by the Licensing Bodies on the Reports of Visitors. They began with the words—"This Council, having considered the report submitted for their consideration and remarks, whilst they observe with pleasure that the visitors consider that the final examination 'combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination.'" There the quotation was garbled, for in the report of the visitors it was added—"And, if efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments." The next paragraph in the report was—"Its defects, on the other hand, as at present conducted, are no less patent; and we have the less hesitation in referring to them since we have reasons for believing that they are recognised by several members of the Council, and are likely to be in part removed by changes about to be adopted." The next paragraph said—"No one of the branches of the examination appeared to us to be fully carried out." He contended that the Council of the College of Surgeons, by taking the words "the final examination combines in a very appropriate and advantageous manner a written, an oral, a clinical, and a practical examination," apart from the context, gave to them a sense which was the very opposite of what was intended in the report. The College of Surgeons went on to remark that the visitors "knew and acknowledged that the Council of the College had already taken active measures to remove" certain defects in the examination. Those words contained a very serious charge against the visitors. The visitors had stated in the report that they were informed by hearsay from the members that the defects were "likely to be in part removed by changes about to be adopted." The subject had been commented on in the *Medical Press*, in which a copy of the remarks of the College of Surgeons was published, entirely in contradiction to what ought to have taken place, for the document was not a public one, and there was no right to make it a public document before it had been presented to the General Medical Council. On that account his colleague (Mr. Power) and himself considered that it would be a great discourtesy to this Council if they discussed the matter in the *Medical Press* before it came before the General Medical Council. He might mention that the editor of the *Medical Press* was a member of the College of Surgeons. The article in that paper said, "It is quite true that the Council had had under consideration for nearly three years a scheme for a new examination, which would have removed all the objections of the visitors." The visitors had admitted that they had heard that such a thing was in contemplation. The article then continued: "These good intentions, however, could not have the effect of modifying the verdict of the visitors upon the system upon which they were ordered to report; and though the contemplated action of the Council should be prominently alluded to, yet the duty of the visitors was clearly to expose and comment upon the faults of the system which was in action before them." This the visitors did honestly. That fact is, that the Council (of the College of Surgeons) had weakly permitted itself to be influenced by the violent opposition to improvement which emanated from the Dublin grinders, and from some of the examiners, and an active minority of its own members, and had conceded, in deference to this opposition, a further continuance of the old system; and that system was, at the time of the visitors' report, practically, if not legally, the law of the College. The visitors, the Medical Council, and the *Medical Press* may be congratulated upon the immediate outcome of the strong censure to which the College has been subjected; and the Council of the College deserves credit for having shown a praiseworthy readiness to acquiesce in the views of the visitors. This was a matter of very great importance to the character of his colleague Mr. Power and himself. They were charged with one remarkable misstatement, but only one, in the whole report, and that was that in one case they stated that two written questions on anatomy, and one on physiology, were supplemented by an oral examination of thirty minutes by two examiners. On this the College of Surgeons remarked—"The oral examination is conducted on these subjects by three examiners, two on anatomy for fifteen minutes each, and one on physiology for fifteen minutes—in all, forty-five instead of thirty minutes. What renders this misstatement remarkable is that the visitors state the facts correctly in another part of their report." The next paragraph was so very curious that he must read it. It brought a very grave charge against the visitors. "The doubt expressed in these words, to be found in the last paragraph of the first report—'The examinations, *if* the dissection be fairly carried out,' this Council would remark, is unworthy of the visitors, and by no means to be excused when contrasted with the following statement made by the same visitors in an earlier part of their report:—'We were informed that every student had been required to dissect for about half an hour, and, on examining the subject, we found that the vessels, nerves, and muscles of the axillary space on both sides, as well as those of the right side of the neck, *had been fairly* made out, and that the skin and superficial fascia of the inguinal region and upper part of both thighs had been reflected—an amount of dissection, in the opinion of this Council, quite sufficient to test the knowledge in practical anatomy of the very small number of candidates examined on that occasion—eight, of whom seven were rejected. Did any suspicion lurk in the minds of the visitors that the dissections had not been *fairly* carried out? Had they any grounds for entertaining such a supposition they should have boldly given expression to it in unequivocal terms. If, on the contrary, they entertained no such suspicion, then never should this sentence have found place in their report." The words "had been fairly" were put in italics as making a strong point against the visitors.

Mr. Macnamara: The visitors used the words "if fairly." Mr. Macnamara then said that, of course, the President would allow him to say a few words. (Voices: "No.") He had now, for the first time, heard that a garbled statement had been made by his College.

The President said that Mr. Macnamara could be heard only with the distinct permission of the Council. Dr. Smith had been allowed to make a general personal statement on a matter which, as Mr. Macnamara would admit, was not before the Council. Clearly, they were unable to go into a debate upon a subject which was not contained in this year's Report. The question was whether Professor Humphry's Report should be received and entered on the Minutes. He (the President) must leave it to Mr. Macnamara whether he considered it necessary, as a personal matter, to reply upon a subject which was not before them.

Mr. Macnamara said that he should like to be guided by any expression of a wish on the part of the President.

The President said that it was his duty, as far as possible, to gather the sense of the Council. They had by-laws and standing orders which, as a matter of fact, were very deficient. Therefore, too much room was left for long and casual discussions, which occupied the time of the Council.

Mr. Macnamara asked whether it was to be tolerated that a handful of dirt was to be flung against his College by a member of the Council, and that what was said should be made public, and that he, as the representative of the College, should be prevented from moving that every word that Dr. Smith had asserted was incorrect, and unsupported by his own very words in his own very report?

Dr. Aquilla Smith protested against the expression "a handful of dirt."

The President said that he really could not think that they ought to raise a discussion, to which there must necessarily be replies and rejoinders, upon a subject which was not before the Council. Therefore he was of opinion, subject to the general wish of the Council, that the subject ought not to be pursued. It was very doubtful whether this was the proper time for the statement of Dr. Aquilla Smith—(applause),—but in bodies of this kind there was the utmost latitude allowed for personal explanations. But he held that it ought not to be allowed that a debate should arise on the explanation. He could not see any reason against receiving the Report and entering it on the Minutes.

Mr. Macnamara said that there were errors in the Report which had no right to appear, and he objected to their being put on record. He then pointed out in detail certain passages to which he took exception.

Mr. Simon withdrew his amendment.

Sir Dominic Corrigan also took exception to passages in the Report, and opposed its reception. He said that when a report was received and entered on the Minutes, it was regarded by nine-tenths of the public as having been adopted.

There then ensued a long and desultory discussion, in which Sir Dominic Corrigan sharply criticised various details of the Report which related to the Queen's College, Galway. He concluded by suggesting "that this unholy production of the visitors of examinations should be dropped altogether, and passed over in silence."

The President: I wish we had passed it over in silence.

The motion that the Report of the Visitors be received and entered on the Minutes was then, after a discussion of two hours, submitted to the meeting, and carried by a majority.

On the motion of Mr. Turner, seconded by Mr. Teale, it was unanimously resolved—"That the Report of the Committee on Visitations of Examinations of June 25, 1875, and the Report of the Committee on Visitations of June 5, 1876, be considered on the first day of the session of 1877."

The Council then adjourned for a short time.

The following Report of the Committee on "The Table of Results" was brought up by Dr. Humphry, and unanimously carried.

The Committee appointed on May 25 to consider the table showing results of professional examinations for degrees, diplomas, and licences granted in 1875 by the bodies in Schedule (A) of the Medical Act, with reference to so large a number of rejections, report—That, in order to arrive at any conclusions on the causes of the rejection of so large a number of candidates in the examinations, it will be necessary to obtain information and opinions from licensing bodies on the subject. The Committee therefore suggests that the Executive Committee be empowered to do this, and that it should report at the next meeting of the Council.

The Committee recommend that information be obtained from the licensing bodies on the following points among others:—

1. As to the chief causes which lead to the rejection of candidates in the professional examinations for a licence to practise.
2. Whether it is desirable that any alterations should be made in the subjects of the examinations, or in the number of the subjects, or in the range of any of the subjects, and what those alterations should be.
4. As to the education of the candidates who present themselves for examination.
5. As to the subject or subjects on which rejections are most frequent, and as to the causes to which the rejections in these subjects are especially to be attributed.

Mr. Teale proposed that the words "educational bodies" be added after the words licensing bodies" in the first paragraph of the Report. He said that it was important to get the students' views upon the cause of the large number of rejections, and they could be obtained only from the educational bodies. He was under the strong impression that the cause of the numerous rejections was, not that the bodies were doing their work more conscientiously, but the cumbrous state of education into which they were drifting. By an "educational body" he meant a school of medicine.

Dr. Humphry said that the Council had no power to make an inquiry directly of the educating bodies. They could only go to the licensing bodies.

Mr. Turner had always felt that one of the weak points of the Medical Act was that the Council had no power to go directly to the teaching bodies. He should be in favour of the addition proposed by Mr. Teale, assuming that the Council had power to carry it out.

Sir William Gull thought that the suggestion made by Mr. Teale was a valuable one, although the Council would not be able to carry it out with any authority.

Mr. Teale then moved—"That it be an instruction to the Executive Committee to obtain information as to whether, in the opinion of the educating bodies, the requirement of four years at a medical school would injuriously add to the cost of medical education, and thereby seriously reduce the number of students entering the profession." He took it that the question of four years or not four years lay at the bottom of all that the Council had to recommend. They could not take any efficient step in laying down a course of medical education unless they knew what amount of time they had to deal with.

Sir William Gull seconded the motion.

Dr. Andrew Wood thought that Mr. Teale's motion would be a valuable subject for consideration next year, when the Council came to discuss the whole of the question of recommendations, and enter into the entire question of examinations.

Mr. Teale said that he would withdraw his motion. He was at present satisfied with having brought the subject before the attention of the Council. (Hear, hear.)

The following Report of the Pharmacopœia Committee was presented by Dr. Quain, and adopted:—

The Pharmacopœia Committee have to report that 4020 of the last reprint of the Pharmacopœia have been disposed of since its publication, and that 10,754 copies of the addition have also been sold. The whole outlay and return are exhibited in the annexed table of expenditure and receipts, together with a statement of the stock in hand. It must be gratifying to the Council to observe that 29,000 of the Pharmacopœia which they have published have been sold in less than ten years, and that the sale continues without diminution, proving the value of the work and the estimation in which it is held. With reference to the future, the Committee think it right to direct attention to the fact that the stock of the Pharmacopœia on hand amounts to only some 900 copies, and that as the present sale of the work exceeds 1000 copies annually, it will be necessary to provide for a fresh issue of the work within the next twelve months. The Committee, therefore, recommend that the Council should authorise the Executive Committee to take the necessary steps at the proper time for a re-issue of 5000 copies of the Pharmacopœia of 1867, with additions.

The Committee recommend that the Pharmacopœia Committee be reappointed.

Statement of "Pharmacopœia Account" for the Year 1875.

Expenditure.	£	s.	d.
Reprinting 5000 copies of the Pharmacopœia, 1867	488	5	0
Printing 15,000 copies of Additions, and binding in cloth, lettered, etc.	300	13	6
Paid editor	50	0	0
	838	18	6
Balance in favour of Council	558	3	6
	£1,397	2	0

Receipts.	£	s.	d.
By sale of 4020 copies of reprinted British Pharmacopœia	807	12	0
Sale of 10,754 copies of additions to Pharmacopœia, 1867	285	0	0
	1,092	12	0
Estimated value of 920 copies of reprint	193	0	0
Estimated value of 4,186 copies of additions	111	10	0
	£1,397	2	0

The Pharmacopœia Committee was reappointed, and the following gentlemen were elected to serve thereon:—Dr. Quain (chairman), Dr. Pitman, Dr. Haldane, Dr. Aquilla Smith, and Mr. Macnamara.

Sir Dominic Corrigan remarked that in the present edition of the Pharmacopœia the solubilities of certain substances were given very indefinitely. He recommended that an alteration should be made in this respect in any new edition. At present he was obliged to have Squire's "Supplement" at hand. It was inconvenient to be obliged to work with two books.

After a brief discussion, it was resolved, upon the motion of Dr. Rolleston, seconded by Mr. Turner—"That the Committee be entrusted with the preparing any such corrections as may be fairly considered as editorial corrections; and that, with the concurrence of the Executive Committee, they be empowered to make such further corrections as may seem to them to be urgently desired."

On the subject of the retirement of Dr. Francis Hawkins from the office of Registrar,

Dr. Stokes moved, and Sir William Gull seconded, the following resolution, which was carried by acclamation:—"That the General Medical Council, whilst accepting Dr. Hawkins's resignation of the Registrarship, desire to express their deep sense of the courtesy and ability with which he has for eighteen years discharged his duties to the Council. The Council beg Dr. Hawkins to accept this resolution as a sincere acknowledgment of the great value of his services."

Dr. Hawkins, in acknowledging the resolution, said that he thanked the Council from his heart for their kind expressions towards him. He felt quite overcome, and should ever remain grateful to the Council for their appreciation of his services.

Dr. Storrar introduced the next item of business. He said: In the year 1868 the attention of the President of her Majesty's Government was occupied with the subject of certificates of

proficiency in vaccination, and a communication came from the Privy Council, signed by Mr. Simon, who is now among us. This communication was referred to a committee of this Council, and the committee presented a full report. The result was the adoption by the Council of two resolutions, which were as follows:—"1. That a certificate should be required by each licensing body from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the method of preserving lymph, and is thoroughly informed in every necessary part of the subject. 2. That such a certificate should only be received by any licensing body from recognised vaccine departments in medical schools or hospitals, or other public institutions where the appointed teacher of vaccination is not liable to frequent change, and where ample means for study are provided by not less than such a number of cases (perhaps eight or ten on an average weekly), as may be found, after due inquiry in the first instance, confirmed by authentic returns, or inspections from time to time, to be sufficient for this purpose at each place." These two resolutions were embodied in a little pamphlet called "Recommendations and Opinions of the General Medical Council." In the course of the current year a letter came under the notice of the Executive Committee, and of the Branch Council for England, from Mr. Gidley Moore, a medical practitioner at Ongar. He complained that, although he had received a qualification from the College of Physicians and the College of Surgeons, he had been rejected as a candidate for a parochial appointment because he had not received proper instruction in vaccination. Mr. Gidley Moore complained to the College of Physicians, and his complaint was forwarded to the President of the Medical Council. This led the President to enter into communication with the President of the Local Government Board. Without going at all into the details, it is enough to state that, somehow or other, all the medical examining bodies in England, with the exception of one, have entirely overlooked these resolutions. Since that time, I believe, the College of Surgeons of England have taken steps to put that body into conformity with the recommendations of the Medical Council, and the only course that I think it would be advisable to take would be to refresh the memories of the licensing bodies with regard to the recommendations which they really have before them. The motion which I have to make is as follows:—"That the attention of the General Medical Council having been drawn to the subject of certificates of proficiency in vaccination, and particularly to the correspondence between the President of the Council and the President of the Local Government Board on the case of Mr. J. Gidley Moore, of Ongar (see Minutes Executive Committee, March 27, 1876), by which it appears that the recommendations of the Council as regards certificates of proficiency in vaccination have not been complied with by all the licensing bodies, and that registered practitioners are liable to disabilities in consequence of such non-compliance, the Council invite the special attention of all the licensing bodies to these recommendations, and request that such as have not yet put their regulations in accordance with them will lose no time in doing so."

Dr. Pitman seconded the resolution. He thought that he might very fitly do so, on account of the subject arising from the fact of the licence of the College of Physicians having been questioned upon the point of sufficiency, and the certificate of vaccination not having been considered sufficient. Dr. Storrar's statement that the licensing bodies had overlooked the recommendations of the Medical Council was not quite accurate, for it was in consequence of the recommendation of the Medical Council that the Royal College of Physicians had issued instructions which they considered to be in accordance with the recommendations of the Council. The doubt arose as to the words "recognised teacher." If the Council had used the words "studied vaccination under a vaccinator recognised by the Local Government Board," the licensing bodies would have known to whom to look for the certificate. The word "recognised" might have meant "recognised by the Council." The College of Physicians thought that, if the teachers were recognised by the Council, that would meet the recommendation of the Council. However, that had not been found sufficient. The certificate must be given by some one who was recognised as a teacher by the Local Government Board.

The President said that a very instructive and valuable correspondence had arisen on this subject. The result was that the licensing bodies would not in future issue testimonials to young men in such a form that they would risk the loss of an appointment.

The motion was carried unanimously.

In reference to the communication from the Board of Trade which was laid before the Council on May 26, suggesting that the fact of registration should be endorsed upon the diploma, it was resolved—"That it be remitted to the Executive Committee to return an answer to the communication from the Board of Trade of May 9, 1876."

A correspondence on the subject of the Medical Register, and its distribution among the registrars of death throughout the country, was referred to the Executive Committee.

The subjoined communication from members of the Medical Defence Association was read to the Council:—

12, Colebrooke-row, N., May 29, 1876.

Sir,—I am requested by the members of the Council of the Medical Defence Association to forward the memorial sent herewith, and to say that they trust you will be pleased to bring the same before the notice of the General Medical Council during the present session.

I have the honour to be, Sir,

Your obedient servant,

(Signed) George Brown,

Hon. Sec. Medical Defence Association.

To H. W. Acland, Esq., M.D., F.R.S.,

President of the General Medical Council.

Memorial.

To the President and Members of the General Council of Medical Registration and Education.

We, the undersigned, on behalf of the Council and members of the Medical Defence Association, all of whom are registered medical practitioners, desire to urge upon your notice the pressing necessity for an immediate alteration in the Medical Acts in order to check more effectually the practice of medicine and surgery by ignorant and unqualified persons.

At present no means exist which can be made use of to prevent the assumption of medical titles by unqualified persons. The Medical Act of 1858, from which the public and the profession expected so much, is practically inoperative in this respect. It is found that in order to secure conviction under the fortieth section thereof, the prosecution must prove that the person complained of "wilfully and falsely pretended" to be registered under the Act. Many unqualified practitioners, especially those who hold foreign and "bogus" diplomas, evade this section by stating in their public announcements that they are "unregistered." Others state that they were unaware they were infringing the Act, and escape on this plea. Others, again, open a shop or surgery, designating it a "medical hall" or "provident dispensary." The proprietors of these places do not announce their names, or personally assume any medical title, so that it is found impossible to obtain their conviction under the present Act.

The Council of the Medical Defence Association having gained much experience in the working of the Act, respectfully suggests that a short Bill should be introduced into Parliament to amend the Medical Act of 1858, by substituting for the fortieth section thereof the following:—

"Any person whose name is not on the Medical Register who shall take or use the name or title of a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, master of surgery, bachelor of surgery, surgeon, general practitioner, or apothecary, or any name, title, or addition implying that he is qualified to practise medicine or surgery, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

The Council of the Medical Defence Association earnestly beg your powerful support in effecting the amendment above suggested, or such modification of it as may seem to you calculated to carry out the object set forth in this memorial.

Signed on behalf of the Medical Defence Association,

Benjamin Ward Richardson, M.D., F.R.S., President.
Alfred Meadows, M.D., F.R.C.P., Vice-President.
W. Spencer Watson, F.R.C.S., M.B., Treasurer.
George Brown, M.R.C.S., Hon. Secretary.

May 29th, 1876.

A short discussion having taken place, it was resolved, upon the motion of Mr. Simon, seconded by Dr. Andrew Wood—"That the memorial be acknowledged, and that the memorialists be informed that at any time, when the Council may have under consideration the question of a general amendment of the Medical Act, the subject to which the memorial refers shall have the careful consideration of the Council."

Dr. Pitman made a communication from the Royal College of Physicians of London regarding alterations of the regulations for the membership and licence of the College, and also as to vaccination. He said that the College of Physicians had lately admitted that three months' clinical attendance at an asylum for insane persons might be accepted in lieu of three months' clinical attendance at a general hospital. They had also made a change in their certificate, to bring it in accordance with the Local Government Board as to vaccination. He made this communication in accordance with the desire of the Medical Council that the licensing bodies should transmit to them an account of any change which they made from time to time in their courses of study.

The list of bodies recognised for preliminary examination, as prepared by the Executive Committee, was unanimously adopted.

A letter from Mr. Bass Smith, and the certificates of the conviction of medical practitioners before courts of law at Nottingham and Liverpool, were referred to the Executive Committee.

The PRESIDENT said that these documents had been before Mr. Ouvry, the solicitor of the Council.

A communication from the Council of the University of Glasgow, and signed by Dr. Allen Thomson, was laid before the Council. It stated that the number of non-professorial examiners for medical and surgical degrees at the University had been increased from three to seven; and that the University had instituted a qualification in public health, candidates for which must be registered medical practitioners, and must have passed at least one year of study at the University of Glasgow.

A communication from the University of Bishop's College, Faculty of Medicine, Montreal, was referred to the Executive Committee.

In answer to Mr. Turner, it was stated by the REGISTRAR that the institution in question was on the list of bodies conducting preliminary examinations.

Mr. TURNER remarked that universities seemed to spring up like mushrooms in British North America.

The Executive Committee were re-invested with their usual powers until the next meeting of the Council.

The proceedings, which lasted six hours, were concluded with various votes of thanks.

ORIGINAL COMMUNICATIONS.

TWO CASES OF

PELVIC HÆMATOCELE SUCCESSFULLY TREATED BY DRAINAGE.(a)

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital for Women and Children.

(*Concluded from page* 639.)

Case 2.—S. L., aged thirty-three, married, no children, a tall, fine, but pallid and delicate-looking woman, presented herself among my out-patients on October 20 (while the previous case was under treatment).

She was supported into the room by a friend and the nurse, bent almost double with pain, vomiting bilious matter, and extremely feverish. Temperature 103·2°; pulse 140, feeble.

A slight examination showed a large indistinct semi-fluctuant abdominal tumour, free red discharge from the vagina, and a soft mass in the recto-vaginal pouch, and, without paining her by further examination, I sent her at once to bed, ordering small opiates by rectum, and ice for the sickness. At 9 p.m. I found her still sick, and in much pain, but not so much as at time of admission. Temperature 101·4°; pulse 120.

History.—Has always menstruated regularly and without pain till the last period, which came on one week late, and has continued to the present time—more than four weeks. The period was normal for the usual time—six days,—but continued for two weeks, and then at 4 a.m. she woke with great pain in the abdomen, sickness, diarrhœa, and faintness, followed by bearing-down pain and difficulty in passing urine and stools. These symptoms were passing off, when four days later, at 7 p.m., she had a second attack, exactly like the first, and continued very ill in bed for some days. On October 16 she was feeling much better, and having noticed increase in size of her abdomen, thought she would come to the hospital, but on getting up and while dressing had a third attack, and she was obliged to go to bed again, where she remained in great suffering till she came to the hospital on October 20.

Examination.—Very free sanguineous discharge from uterus; cavity measures three inches, sound rotating freely in it; it is fixed, and pushed forwards and rather to the left by a soft, doughy mass, which extends down into the recto-vaginal pouch, bulging considerably on the posterior vaginal wall. Combined rectal and vaginal examination shows the mass to be as large at its lower part as a large hen's egg, and evidently continuous above with a large, soft, indefinite mass filling up the right side of the abdomen and reaching nearly to the umbilicus and across to the left of the linea alba.

(a) A communication read before the Medical Society of London, April 10, 1876.

October 21.—Has had a bad, restless night, with constant vomiting and much pain; area of dulness in abdomen has distinctly extended farther to the left side and higher. I did not think it advisable in this case to wait longer, and therefore had her placed on a table in the lithotomy position, and, assisted by Dr. Bantock, I made an incision with a bistoury into the most prominent part of the vaginal swelling, then introduced first one finger, then two, and then the uterine sound, and succeeded in evacuating over a pint of thick, dark blood and clot, some of the latter decolorised. I then injected some iodine and water to try and wash away more of the clot, but the patient complained of sharp pricking pain spreading all over the abdomen, so I desisted, and having put in a large curved glass drainage-tube, replaced her in bed. A few hours after I found her easier and less sick, but with the whole abdomen hard, tender, and over a great part of its surface tympanitic. Five grains of quinine every three hours.

22nd.—Sickness has ceased; flatus passes freely; abdomen softer and less tender; well-defined dulness to about two inches and a half above the pubes, and slightly across the median line; the dull area is slightly more prominent and indistinctly fluctuant. Very little discharge came by vagina, and none through tube till October 24, when the tube slipped out, and was replaced with difficulty. I threw some iodine and water through it, when she at once complained of the same pricking pain spreading over the abdomen. This was followed by hardness and tenderness as before, but as before it soon subsided.

At 3 p m. on the 26th she complained of pain in left leg, and I found it generally swollen and tense, and the scar of an old abscess over the hip had a red blush round it, and was showing signs of death of skin in centre.

On the 27th, free dark offensive discharge commenced from the tube, and from this time till November 2 there was marked improvement, though the temperature was still sometimes high. On this day the discharge increased and became redder, and she fancied from her feelings that her period had come on.

On the 4th I found the tube blocked with clot, and removed and cleaned it. While it was out I passed a pair of œsophagus-forceps into the cavity easily to a depth of at least four inches, and on slightly separating the blades a large quantity of dark offensive fluid gushed away. I passed a catheter between the blades, and washed out the cavity well with 1-20 carbolic lotion, without any complaint from patient, and then replaced the tube.

November 6.—There has been very free discharge (over two pints of dark coffee-ground material) since the 4th.

7th.—Tube slipped out at 11 p.m. last night, and at 6.15 a.m. this morning patient had a severe rigor lasting five minutes, and the temperature rose to 105°. I saw her at 8 a.m., and replaced the tube, giving exit to about three ounces of fetid pus. The next morning I found little or no discharge, and as her temperature was still high, and I feared the tube might slip again, I put in a tangle-tent. At noon she had another severe rigor lasting ten minutes, and the temperature rose to 105·8°. I had the ice-cap put on, and at 3 p.m. she had another rigor lasting twenty-five minutes. The ice-cap was kept on, however, and at 1 a.m. on the 9th the temperature had fallen to 98·6°. On examining the abdomen at the morning visit, I found the dulness and hardness had distinctly increased, especially over the left side; free, thin, offensive discharge through tent. The temperature rose during the afternoon to 103·6°, but next morning was only 100°, and I removed the ice-cap; but the temperature began to rise, so it was replaced.

12th.—Discharge copious and offensive; does not come very freely, but gushes when she coughs.

She continued to improve till the 17th, when the tent came out, and as the discharge still seemed to get freely away I did not replace it.

On the 18th she was up in a chair by the fire, and on December 6 she went to the Convalescent Home at Brentwood, when the condition was much the same as in the first case, except that there was a large hard mass surrounding the right side and posterior surface of the uterus and extending above the pubes. The opening could still be seen, with a little thin, serous discharge.

I have seen both cases several times since, and they continue well, menstruating regularly. The last one had some slight return of the pain and swelling in the left leg just following the second period after leaving the hospital. I doubt whether

anyone who examined them without knowing their history would detect anything now except slight loss of mobility of the uterus.

It will be noticed that each of these cases was about an equal time under treatment; the length of time was, I believe, greatly prolonged in both by not getting and keeping a thoroughly efficient outlet for the escape of the blood and clot. With regard to the first case, I think it is possible that if she had been taken into hospital and carefully looked after at first, she might never have become so ill as to require surgical treatment. The second case had already become a very serious one when I first saw her, and the hæmorrhage recurred at the time when the next period was due while she was under treatment.

Supposing the expectant treatment to have been justifiable in either at the time when I adopted another course, I think it is open to question whether a long residence in hospital—which would certainly have been necessary for the absorption of such large effusions, with the risk of the desired result not being attained after all, or of some disastrous accident occurring which would have necessitated surgical measures under very unfavourable circumstances—offered the patients any advantage over the bolder surgical treatment. The result in both cases is most satisfactory; and the expectant treatment presented many dangers, and might very probably have left them with a permanent tumour due to organisation of a part of the blood-clot.

I have adopted while treating these cases a plan which my old teacher, Mr. Syme, often impressed upon me—*i.e.*, to read all available literature relating to any given case, or series of cases, which one may have an opportunity of watching. The result in this instance has been to impress upon me the fact that if these collections are interfered with at all, it is much better to make a free opening, and take care that free drainage can take place; and I am glad to see that two such great authorities as the late Sir James Simpson and Mr. Spencer Wells are of the same opinion. The former, in his "Clinical Lectures," says at page 136—"If symptoms of inflammatory effusion and swelling do come at last to manifest themselves, make a free and early incision into the cavity and evacuate the whole of its contents. The artificial evacuation of the collected blood may, perhaps, also be occasionally judged advisable in some cases where no inflammation has supervened, but where the tumour continues large and presses injuriously and painfully on surrounding parts and organs; but such instances are rare."

Mr. Wells, in his work on "Diseases of the Ovaries," page 228, says—"I cannot refrain from expressing the strong opinion, impressed upon me by a considerable number of cases, that whenever any such quantity of blood, serum, or pus is effused in the neighbourhood of the uterus as to form a distinctly perceptible swelling, it is far better to puncture that swelling, and to maintain an opening for drainage, than to hope for any spontaneous cure by absorption or discharge through vagina, bladder, rectum, or skin."

I think we must also always be prepared in certain rare cases to evacuate and drain, even where no serious symptoms are present; for if the collection be very large, we can hardly hope for its absorption, and there is very serious risk of the collection opening into the peritoneum. Some of these cases are among the most difficult, in which the surgeon can be called upon to balance the dangers of waiting too long against those which he has to face when he opens a large hæmatocele; but I think we may fairly hope that as experience increases we shall find a safer and surer method for evacuating and draining than we at present possess.

I am inclined to give the hollow tangle-tent the preference over other forms of drainage-tube, because it can be put into a comparatively small opening, and as it swells it becomes fixed, and is not liable to slip during movements of the patient—defæcation, etc.,—and while it keeps its place it is also sufficiently soft and pliable not to injure the patient; and, though inferior to glass or silver in point of cleanliness, it is much superior to indiarubber in this respect. Those commonly sold are made in pieces pegged together, which is a great disadvantage, and may become a source of danger.

Supposing, then, that in any given case we have decided to make an opening. Where shall it be made? Dr. Meadows, in the papers I have already alluded to, advocates puncture per rectum. I confess that this seems to me to be a most extraordinary method. For, putting aside the fact that if the opening is made per rectum it must be a mere puncture, there are the great disadvantages of admitting fæcal gases or even liquids, and the still greater one of having the opening in a situation in which we cannot gain free access to it if further measures become necessary. It is possible that a case might be met with such as Dr. Meadows describes—the bladder covering the whole vaginal aspect of the tumour,—but I imagine such a case would be rare, and I should certainly regard it as a great calamity if I were compelled to form a connexion between the bowel and a large collection of blood or inflammatory exudation, let alone the possibility of establishing an artificial perforation into the peritoneum itself. Having made an opening, is it advisable to use injections, or to be satisfied with merely giving free exit to the blood? I should certainly, in any future case, advocate the latter plan, especially if the effusion was recent, or if there was any chance of the injection finding its way into the peritoneum. I believe that in a mass like the blood-clot we cannot hope either to prevent putrefaction by injecting an antiseptic, or to correct it if it has already started, and that we may do immense mischief by forcing some of an irritant injection or the still more dangerous products of putrefaction into the cellular tissue or peritoneum.

In later stages, where we have to deal with what is really a putrid abscess cavity, I think antiseptic injections may be of decided benefit, and I think it is a good plan to have the vagina frequently syringed with an antiseptic lotion, as we thus avoid any retention and absorption of poisonous matter which has lodged in it.

I must here mention another matter referred to by Dr. Meadows, who states that the fluid evacuated was very fetid in four cases he has treated. In two of these, which he details at length, previous punctures without result had been made—once through the vagina, once through the rectum. Would not the trocar passed through either of these passages carry in with it causes of putrefaction? In both my cases the fluid was odourless at first, or in one I might say there was a peculiar faint odour, which Dr. Matthews Duncan has compared to that of dying flowers. In neither case did I find any microscopic organisms on examining the fluid shortly after it was evacuated.

I should think we are very likely to have in some cases an odour communicated from proximity to the intestines and their glands; but this is only what every surgeon is familiar with in abscesses about the rectum. And yet these abscesses may be opened, and no organisms be found in the fetid pus; and more, they can be treated antiseptically,—and I have myself seen cases so treated by Mr. Lister. I think the possibility of evacuating collections of blood and other matters in the female pelvis antiseptically should always be kept in mind; and I have little doubt a method will soon be devised.

The points to which I wish particularly to direct the attention of the Society are the following:—1. That it is advisable in some cases, when the effusion is so large or its situation such as to render the chance of spontaneous evacuation dangerous, to open pelvic hæmatocele, though no serious symptoms are present. 2. That free incision and drainage are preferable to puncture in all cases, when possible. 3. That it is not advisable to puncture per rectum, unless compelled to do so by the relations of the effusion. 4. That it is not advisable to use injections in early stages after opening. And I should like, further, to hear what is the experience of Fellows of the Society as to the condition of the fluid at the time of first evacuation. I have purposely avoided reference to the relative frequency of intra- and extra-peritoneal effusion, because it is a point on which I know there is much difference of opinion—opinion supported by few facts,—and discussion is consequently not likely to lead to much practical benefit. Time and careful records of the more serious cases, especially of those which may be unfortunately fatal, can alone decide this question.

Death of Professor Pétrequin.—This distinguished Lyons surgeon, long considered as at the head of the profession in that city, died on June 2, in the sixty-seventh year of his age.

Administration of Ergot of Rye.—Dr. Boon states that in order to have it fresh prepared he always carries the ergot with him entire, and when wanting to use it, grinds it in a coffee-mill, which is to be had in every house, and answers excellently.—*Journ. de Méd. de Bruxelles*, February.

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Medical Times and Gazette.

SATURDAY, JUNE 17, 1876.

THE MEDICAL COUNCIL AND CONJOINT EXAMINING BOARDS.

One of the most animated and prolonged debates of the late session of the General Medical Council was excited by Sir William Gull's motion for an expression of regret by the Council, that "up to this time, and after so long delay, no scheme for a Conjoint Examining Board for England, Scotland, or Ireland has yet been put in operation"; and, further, expressing a desire "urgently to press this matter of conjoint examinations upon the bodies whose duty it is to arrange and supervise the medical examinations in the several divisions of the kingdom." Sir William thinks it "very desirable that the work should be done in the greatest division of the kingdom first. The operation of a Conjoint Scheme in England would enable us to see the advantages of the Scheme. Therefore, he did not propose to raise up the opposition of his Scotch or Irish friends in the matter, but would ask them to unite with him, at that moment, to urge a Conjoint Scheme upon England." This way of putting the matter may have been very diplomatic as regards the Scotch and Irish representatives in the Council, but it sounds very like treating England as the proverbial *corpus vile*. He remarked on the great expense of the system of visitations of examinations—an expense so great that the funds of the Council could not bear it, and soon there would, in fact, be no visitation at all,—and suggested the formation of a Scheme in which the universities should rather stand by and look on than take any active part. They should "merely send assessors, and leave the College of Physicians, the College of Surgeons, and the Apothecaries' Society to work the Conjoint Scheme." To carry out this idea, another conference of delegates and a new amended Scheme would, of course, be required. It is to be noted, however, that in the last clause of Sir William Gull's resolution, "conjoint examinations" are spoken of instead of a "Conjoint Examining Board," as in the first clause; this change in the phrase was made by Sir William at the instance of Dr. Humphry, who, in supporting the resolution, hoped more in the possibility of a combination of examinations by the corporations than in the formation of a grand and perfect Scheme and Board. He has had large experience in the matter—being on the Council of the Royal College of Surgeons, and having been a member of several committees; he is a member, also, of the University of Cambridge, and one of the Committee of Reference,—and he confessed that "he had arrived at the conclusion that they had been too ambitious and attempted too much at first. They had been foiled in their attempt to fuse so many bodies together." Dr. Humphry's tone was anything but hopeful. His experience of the various bodies has forced on him the belief that it will be "exceedingly difficult, if not impossible, for so many bodies to unite well together." He holds that the only possible plan of general union would be that of committing the arrangements of all the examinations almost entirely to a committee of reference elected by all the bodies; and this they are unwilling to do. Still, he thinks the Council ought to endeavour to carry out the principle, but they will be wise to use general terms in advising combination, instead of insisting rigidly on all the bodies uniting together. Dr. Rolleston, who seconded Sir William Gull's resolution, went to physiology for a very far-fetched illustration in support of his arguments. He thought that "the Council, in being willing to accept partial combinations at first, were only putting themselves in keeping with the spirit of the day, which was based upon the idea of development." They knew that "in the development of the embryo the mulberry mass of spheroids gradually joined into one continuous membrane; and he hoped that in the same way the conjoint examinations would grow bigger and bigger, and at last join into one continuous board." We may perhaps suggest that if the licensing bodies, like the "mulberry mass of spheroids," possess an innate power and tendency of development into one continuous membrane, they had better not be interfered with, but be let alone to develope naturally. It may also be observed that at present the tendency appears to be for each body to develope itself into a perfect examining board instead of towards combination with others. The College of Physicians examines in surgery, and the College of Surgeons in medicine, and so on. Dr. Rolleston introduced the old threat of Government interference, and warned the bodies to "secure to themselves the British privilege of managing their own affairs without Government interference," by carrying out the principle of a Conjoint Board.

Mr. Macnamara observed that he had listened with great surprise to the suggestion that the universities should take no active part in the conjoint examinations, and remarked that in Ireland and Scotland that would be impossible, as in those countries a very large proportion of the persons qualified for practice take their qualifications from the universities. He declared that in Ireland and Scotland there was a growing feeling, amongst the more intelligent of the profession, that there is no necessity for conjoint examinations; and he believed that a similar feeling is arising in England. He approved of Mr. Turner's suggestion, that there should be an Act of Parliament requiring every person on the Register to hold a qualification both in medicine and surgery, as the only practical solution of the question.

Dr. Andrew Wood thought the discussion the most important one of the session. It was quite clear, he said, that a very considerable change had come over the spirit of the dream of the Council since 1870; but "very much had happened since then," and he was much pleased now to hear mentioned a practical plan for making the legitimate combinations suggested by Clause 19 of the Medical Act. Let there be, he said, an Act insisting on the double qualifica-

tion; "that would be the way to form a Conjoint Scheme, but it could not be done by bringing together a number of heterogeneous bodies, who were saying one thing one day, and another thing another day, and who at last were obliged to declare that their scheme had utterly failed." The idea of getting complete uniformity by a Conjoint Board was Utopian; and, if attainable, he doubted its desirability. Why, he asked, had not the College of Physicians and the College of Surgeons united in England for examinations, as they had in Scotland? To which Dr. Pitman replied that the reason why they had not joined for that purpose was, that "they hesitated in conformity with the request of the Medical Council, who wanted a Conjoint Board." He would regret if the Council agreed to the latter part of Sir William Gull's resolution, as it seemed to suggest partial combination rather than a single Conjoint Board; but he should not be content to take the lesser good, of partial combinations, till it had been fully proved that a Conjoint Board could not be carried out by all the licensing bodies. Mr. Teale, another of the new members of Council, also spoke in favour of a Conjoint Board for England, and in support of Sir William Gull's resolution. Mr. Lister, on the contrary, did not feel able to join in the expression of regret conveyed in the resolution. He approved highly of partial combinations, but did not see any special virtue in a one-portal system. The great desideratum was that there should be fully competent and vigilant guardians at every gate of entrance, be these many or few; and he doubted very much whether the uni-portal system would tend to strengthen the vigilance of the porters. As a man rose to eminence in the profession, he became inclined to give up his position as a teacher, and to decline the duties of an examiner. "Hitherto," Mr. Lister observed, "it had been an honour to be an examiner at the College of Physicians or the College of Surgeons; but he strongly suspected that, when the *esprit de corps* and the desire for the honour of individual bodies was removed, it would be found that the examiners were not improved in quality. Examining was not only a most difficult, but a most troublesome and unpleasant business. And he frankly confessed that, if examining did not constitute an essential portion of his duties as a professor, he would not engage in it. He believed that if the uni-portal system existed in Scotland he should decline the most irksome and onerous duties of examining." He thought also that the uni-portal system should be looked at from the students' point of view. Supposing a man had obtained an M.B. degree, why should he be put to the additional expense, anxiety, and risk of the examination by the Conjoint Board? The fact of an examination being in prospect was a great hindrance to real and practical study; and, after all, examinations were, to a certain extent, a lottery. He thought that the Conjoint Scheme might divert a large number of men from taking a university degree at all, and induce them to be content with the Conjoint minimum. Mr. Simon declared his entire adhesion to Sir William Gull's motion. He did regret that after so long delay no scheme for a Conjoint Board had been put into operation. There was at the present moment a hitch, but he believed it was only a temporary one, and did not doubt that the difficulty would be got over. He considered that the Council had never, during the eighteen years of their existence, passed any resolutions more commanding the assent of the medical profession than those relating to the Conjoint Boards. But when the resolutions of 1872 were passed it happened that public opinion had been very much directed to this matter, and the Council felt that there was practically little choice left them. Nothing, he said, was further from his mind than a threat; but, he added, if the attention of the profession and the Government should be again drawn to the subject, the Council would, he did not doubt, again vote as in 1872. Among the other members of the Council who spoke during the debate, Dr. Quain, though "an enthusiast on the subject of Conjoint Boards," rather thought that the various bodies should be asked their reasons for having hitherto disregarded the resolutions of the Council, before what was practically a vote of censure on them for not having combined was passed. And the President, after showing in what very strong terms the Council had, in former days, expressed opinions in favour of Conjoint Schemes, stated that he had no doubt whatever that a Conjoint Board would certainly be formed in England. "The Council might be as sure of that as of any future human fact"; and he should think it a great national misfortune if the combination did not embrace all the licensing bodies in that division of the kingdom. In the end the motion was carried by fifteen votes to six; three members, including the President, declining to vote.

Dr. Humphry then brought forward a motion, which during the previous debate he had proposed as an amendment, but had withdrawn in order not to embarrass the voting on Sir William Gull's resolution. He desired the Council to urge upon the licensing bodies without delay "the importance of union or co-operation in conducting their examinations," so as to insure that every person admitted to the Register "has been tested in medicine, surgery, midwifery, and the other subjects which are deemed essential by the Council"; but several members objected to it as being included in, and weaker than, Sir William Gull's motion, or a qualification of it; and it was negatived by twelve votes to ten.

The whole debate was, we must think, a great waste of time. Nothing really new in favour of Conjoint Uni-portal Boards was brought forward; and the whole tone of the discussion appears to us by no means encouraging to the believers in Conjoint Schemes, though a few very positive opinions were given in favour of them.

As to other subjects dealt with, or postponed, by the Council, we must defer comment till next week.

"CONSPIRING TO MURDER."

A MEDICAL EXPERT, when giving evidence at Edinburgh in 1857 in the case of L'Angelier, was asked whether he knew of any poison which could not be detected after death. He replied that he knew several, though he refused to say what they were. Subsequently, it is stated, he received very numerous letters of inquiry respecting the secret unnamed poisons to which he had referred, and many of the letters were more suggestive of malicious intent than of scientific curiosity.

We are not aware of any attempt to obtain the same kind of information by advertisement until quite recently. Last December, however, there appeared in the *Daily Telegraph* the following notice:—"To medical men in need of money, or students well up in chemistry and anatomy.—A gentleman engaged in an interesting experiment is willing to give liberal remuneration for professional assistance." This specious announcement held out a threefold allurement. It included the opportunity of bringing into play a knowledge of chemistry and anatomy, the prosecution of an interesting experiment, and liberal remuneration.

Surely there would be found some one with the necessary qualifications to catch at such a prize! Such was the case; and William Kimpton Vance, aged twenty-four, described as a medical student and an unqualified assistant, responded. A correspondence through the post ensued between this person and the advertiser, who signed herself "Wm. Quarll," and led Vance to believe his correspondent was a man.

"Wm. Quarll" professed the desire and intention to commit suicide for the benefit of a friend; but, in order to avoid any risk of invalidating his will, and to spare the feelings of the legatee, considered it was necessary to compass death in such a way that self-destruction could not be proved. One hundred

pounds was offered as the reward for advice and information on this subject; and Vance was weak and wicked enough to make himself a party to the contract.

In a business-like manner, and with an air of calmness and deliberation as astonishing as it is repulsive, he suggested chloral as the safest poison, and appears to have supplied some of the drug together with a little prussic acid and a few drops of peppermint. In one of his letters he remarked that "after mature consideration I know of no more feasible method. The cases of the poisoners Pritchard and Palmer, both doctors, were ingenious; yet they were detected. They lived before these chloral times." He goes further in discountenancing any clumsy attempt at suicide, and adds "as an anatomist and medical jurist, I altogether frown on any attempt to excite arterial rupture." This indignant attitude of frowning "altogether" must have been very striking, and seems to have carried conviction to the mind of "Wm. Quarll." The same careful thought was applied by Vance to the question of the best means for obtaining his reward after his instructions had been carried to a successful issue. We shall, however, refrain from quoting further. Here is evidence enough of the thoughtful and pseudo-scientific spirit in which Mr. Vance considered "the interesting experiment" of murder, and the "liberal remuneration for professional assistance" therein. As to who was really to be "experimented" on—whether the advertiser or some third person,—that seems not to have troubled Mr. Vance. The "remuneration" he gave plenty of thought to. Fortunately, through some bungling about their letters, the whole scheme was disclosed, and then it turned out that "Wm. Quarll" was a married woman named Helen Snee, twenty-nine years of age, residing at Camden Town, who was scheming to poison herself in the way planned by Vance. The case was tried at the Central Criminal Court on May 31 and June 1, and ended in the conviction of both the parties concerned.

As to Mrs. Snee's conduct, it must be regarded as that of a weak-minded person nursing morbid, perhaps morbidly romantic, thoughts. We can hardly use language strong enough in censuring the atrocity of Vance's conduct. That a man acting as a medical assistant, and studying to become a legal medical practitioner, should be so indifferent to his legal responsibility and so destitute of moral sense as to willingly and flagrantly prostitute the special knowledge he had acquired, and the opportunities for procuring poisons which his position gave him, is treason against the most sacred privileges of the profession he was aiming at, as well as against humanity itself.

Mantua's law was death to any who sold drugs for poisoning. The punishment to which English law has sentenced Vance is anything but severe. Eighteen months' imprisonment for such infamous conduct as his amounts almost to a failure of justice. In passing sentence, Mr. Justice Mellor regretted that he had no power to add hard labour to it; and he remarked that, had the indictment been differently framed, the prisoner might have been condemned to ten years' penal servitude.

Although no doubt tempted by the offer of £100, he could not plead as an excuse the famine, oppression, and ragged misery of Shakespeare's apothecary. He has received imprisonment for his pains—not gold, which in his case has proved to be

> "Worse poison to men's souls
> Than these poor compounds that thou mayst not sell."

The only cause for congratulation we can find is that William Kimpton Vance was not, and never will be, a member of the medical profession. There has been no lack of alarmist articles in the daily and weekly papers, suggested by this and the Bravo cases, with reference to the increased knowledge of poisons and the method of poisoning. It has, too, been darkly hinted that medical men are not universally so humane and fastidiously scrupulous as they would have people believe, and that there are black sheep amongst us.

We see no cause, however, for any alarm, and we have confidence in the thought that those black sheep must be so black as to be very rare and altogether exceptional who will, as De Quincey says, look upon murder as "one of the fine arts," and employ their knowledge and materials in its exercise.

DEPUTATION TO LORD CARNARVON ON THE VIVISECTION BILL.

On Thursday afternoon there waited on Lord Carnarvon, on behalf of the British Medical Association, a deputation on the subject of the Vivisection Bill. The deputation was a very large one, and very influential—such a deputation, in fact, as we had never before seen, and which, as was well said, was such as no Minister ever before received on behalf of the medical profession. The points mooted were those already discussed in the Parliamentary Bills Committee of the Association, and which are given elsewhere in our columns. They correspond exactly with what we have said and published on the subject. The feeling of the gentlemen present was very strong: they held that the passing of the Bill would tend to degrade the profession; that its provisions would prove vexatious in the extreme, and would render gentlemen of position and honour liable to proceedings to which only convicted criminals were now subjected. The views of the Bills Committee were most ably put forward by Mr. Ernest Hart, and were supported at some length by Dr. Sharpey, Dr. Sibson, Dr. Bartolomé (of Sheffield, the President-elect of the British Medical Association), and Dr. R. Quain. Their speeches were well and moderately put. Their arguments were, as we think, unanswerable; and, naturally, we could not expect them to be answered by Lord Carnarvon at a moment's notice. He took occasion to state that there was no intention on the part of the Government to do anything derogatory to the dignity and interests of the medical profession; but that there was a strong feeling outside on the subject, and the Government were compelled to take steps to satisfy the public mind. He assured the deputation that the remarks on and proposed amendments of the Bill would receive, both by Mr. Cross and himself, the most careful consideration.

THE WEEK.

TOPICS OF THE DAY.

At a special meeting of the Birmingham Town Council, held last week, the Mayor read a letter announcing the gift to the town of another fine estate, for the purpose of a public park, by Miss Ryland, the donor of Cannon Hill Park and of other valuable local gifts. A short time ago Miss Ryland was asked to sell to the Corporation some forty-two acres of land situated at Small-heath, where the Council were desirous of opening a new park. Miss Ryland, in reply, declined to sell the land, but expressed her willingness to give it to the town for a term of 500 years at a peppercorn rent, subject to the application of the rents until the termination of the present lease (which has four years to run) towards the laying out of the land as a park. The estate, which is beautifully wooded, is situated two miles and a half from the centre of the town, but well within the borough boundary, and in a quarter where the artisan class predominates. The intrinsic value of the gift was estimated at not less than £30,000. Cannon Hill Park, for which the town is indebted to the same lady, is larger, embracing some sixty acres of undulating and well-timbered land, of the estimated value of £70,000. Lord Kimberley has also announced his intention of presenting a park to the town of

Falmouth; it is being very tastefully laid out, and will be formally handed over by his lordship in the course of a few months.

Dr. T. W. Grimshaw was recently examined before the Dublin Local Government Committee, who are engaged in considering the sanitary condition of the city. Dr. Grimshaw gave some not over-sanguine statistics of the general health of Dublin, and a rather deplorable account of the back slums, and the existing arrangements for the preservation of the health of the citizens. He made an unfavourable comparison of the death-rate in Dublin with that in other large cities tabulated by the English Registrar-General, and remarked that in cases of epidemic or in severe weather Dublin suffered more heavily than other towns, though it was built on a healthy situation. His description (as a cause of this) of the state of filth and neglect in the poorer quarters, the want of proper arrangements for domestic scavengering, and the default of vigorous action on the part of the authorities, seemed to produce an effect on the Committee. He accused the Public Health Committee of general supineness, and expressed the opinion that the appointment of a competent medical man, whose suggestions would be carried out in their entirety, would, in a great measure, remedy the existing evils that were complained of. The final report of the Local Government Committee, and the suggestions which they may be expected to make for sanitary reform in Dublin, will be anxiously looked for.

Dr. Frankland, F.R.S., reports that the Thames water supplied during May was of much better quality than that delivered in March and April. The samples, however, drawn from the mains of the Chelsea, Grand Junction, and Southwark Companies was slightly turbid through inefficient filtration, the suspended matter containing in each case moving organisms. Under the microscope "fungoid fibres and minute worms" were seen in the Southwark Company's water.

A Committee of the Governors has been appointed to inquire into all the circumstances attendant on the recent catastrophe at St. George's Hospital, and to take measures for making good the havoc it has created. The Hospital has sustained a considerable loss, and a large sum will be required to replace those portions of the fabric which have been wrecked, and to defray the expenses which the accident may occasion. The Duke of Grafton, Lord Penrhyn, Sir Charles Trevelyan, and others have already given proof that the cost of this calamity should not be wholly thrown upon the general funds, which are already inadequate to meet the ever-increasing demands upon them. The Treasurer appeals most earnestly for liberal donations to defray this unexpected outlay. The Board of the Hospital, at their last meeting, passed a resolution thanking the pupils of the establishment for their gallant conduct under the emergency, and the Dean of the Medical School was requested to convey the resolution to the students. We regret to have to record that one of the patients, Eliza Gomez, injured in the accident, has since died, notwithstanding the greatest care and attention afforded by the medical staff of the Hospital.

Representative deputations from the Middlesex Justices, consisting of Captain Morley, Mr. Borlase Hill Adams, Mr. H. Pownall, Mr. Harwood Harwood, and several others, waited on the Home Secretary last week on the subject of coroners. Captain Morley urged on Mr. Cross the immediate necessity for the Government taking the appointment of coroners into its own hands, and the advantage of determining a fixed standard for the remuneration of these officers. Several recent disclosures, irrespective of old standing ones, respecting the performance of their duties, rendered it more than ever necessary that coroners should be more directly responsible to Government for the conduct of inquiries, rather than to the constituencies by which they were at present elected. He incidentally alluded to the mode now adopted of holding inquests in various localities, instead of in one particular building, as being both expensive and unsatisfactory. It would be better to make all coroners' investigations partake of the character of medical inquiries, rather than, as at present, of *quasi*-criminal tribunals, and urged that their functions should be more clearly defined and limited in specific cases. With regard to the expenses of witnesses and post-mortem examinations, he expressed himself as being in favour of their being provided for out of the county rate as heretofore. The Home Secretary, in reply, briefly observed that the subject in question was one that required a great deal of consideration; it had received his attention, and he should not lose sight of the fact that an inquiry into the whole matter was demanded.

The persistent opposition of the Medical Officer of Health for the City of London to the dangerous Aldgate Pump has at length been crowned with success. The handle of the pump has now been removed, and though its enthusiastic supporters will in future be deprived of the "clear sparkling water" they have so long enjoyed, there is no reason to doubt that the health of the public in that neighbourhood will be much less in jeopardy now that the venerable fountain of possible disease is finally closed.

We have received some communications from India, which state that a great deal of dissatisfaction prevails amongst the ranks of the senior members of the Bombay Military Medical Service, with reference to the manner in which appointments have recently been made. There are several important appointments now vacant, and it is feared that, unless Government in filling them up can be induced to depart from the method recently pursued, much injustice will be done to some deserving members of the Department. From what we gather, it is intended upon the present occasion to promote those gentlemen whose merits have warranted advancement, irrespective of their position in the Army List; and, although it cannot be denied that promotion by merit opens the way to favouritism, it must be remembered that there is no alternative between this and the frequent appointment of incompetent men under the system of promotion by seniority. The question is, we must admit, a difficult one to deal with; but we hope that a judicious selection on the part of the authorities will restore a feeling of confidence amongst the members of the Bombay Medical Service.

The President of the Local Government Board stated, on Monday last, in reply to a deputation that had waited upon him, that he could not at present see his way to any alteration of the law as regards the superannuation of medical officers. The deputation also desired the establishment of dispensaries in rural districts, and that the guardians should pay for all the medicines supplied; but Mr. Sclater-Booth informed the deputation that he was not quite sure that this would be desirable.

An application in reference to the death of the late Mr. Bravo, of Balham, will shortly be made by the Treasury authorities to the Court of Queen's Bench. We believe that it has been determined to ask for a fresh inquiry.

On Monday last, Mr. Edwin Chesshire, of Birmingham, had an interview with the President of the Local Government Board on the subject of the utilisation of town sewage. Mr. Chesshire, who was introduced by the President of the Board of Trade, was most courteously and attentively listened to while he explained his well-known system by "interception," "subsidence," and "irrigation," the essence of which is the interception "at the *fountain-head* of the *solid* portion of the excreta of the population in 'sanitary interceptors,' *before* the excreta have entered the sewers." We suspect, however, that our zealous *confrère* did not meet with much success in his

endeavours to convince Mr. Rawlinson, who was with the President of the Local Government Board, of the paramount importance of his system.

We are glad to learn that the Queen's University Graduates' Association, which was established last year under the presidency of Mr. Mac Cormac, of St. Thomas's Hospital, promises to become an active and useful body. The Association had their annual dinner on the 31st ult., at the St. James's Restaurant, Piccadilly, after which the prospects and work of the Society were discussed, and the officers elected for the ensuing year. Among the members are a great number of medical men in practice in or near London, besides barristers, clergymen, members of the Civil Service, men of letters, and others.

DINNER TO SIR JOSEPH FAYRER, C.S.I., ETC.

We have been favoured with the following from an old and esteemed correspondent:—

On the evening of her Majesty's birthday, a goodly number of the members of the Indian Medical Service dined together at St. James's Hall, under the presidentship of the late Nestor of the profession (in India), dear old John Forsyth. Some sixty representatives of the three Presidencies (Bengal of course predominating), including friends, assembled to welcome back from his responsible but eminently successful tour with the Prince of Wales in India, the guest of the evening, Sir Joseph Fayrer. Among those from Bengal, we noticed John Jackson, Edward Goodeve, Hugh and John Macpherson, Norman Chevers, Frederick Mouat, Alexander Grant, Charles and Frank Macnamara, John Sutherland, Drs. Bruce, Leckie, Eatwell, J. B. Dickson, A. C. Macrae, Andrew Wood, Scriven, Duka, Hastings, Paton, Cox, Playfair, Francis, etc. Madras was represented by Paul, Cornish, and Francis Day, etc.; and Bombay by Tatham and Boycott. Among the guests were General Bouchier, Stuart Bayley, B.C.S., A. Grote, Professors Longmore, Aitken, and Maclean; G. Pollock, Jabez Hogg, Lauder Brunton, Edward Tyler, B.C.S., Surgeon-General F. Innes, C.B., Surgeon-General J. Mouat, Dr. Duckworth, General Alexander, R.A., Sir Alexander Armstrong, Dr. Basham, etc. The scene was one not readily to be forgotten. There were men who, having done good work in the land of their adoption, were now reposing on their well-earned laurels—men who, entering the Indian Service in the days of its patrician government, had nobly contributed their share to the lustre of European medical history in India. It was sometimes hard to recognise, beneath the silvery mantle of old Father Time, the friends that had bid us cordial welcome when we first landed to take our place in the medical establishment. But there

> "Grey philosophy stood nigh,
> Tho' old in years, in spirit high."

There were those, too (now at home on leave), whose work is still in India, and who are illustrious examples of the best type of European physicians and surgeons there. There were a few, too, young in the profession and in years, who enjoyed this rare opportunity of witnessing a display of that warmth of good-fellowship which proverbially animates European society in the East. We venture to affirm that, amid all the rewards and marks of Royal favour which have been bestowed on Sir Joseph Fayrer, none will have given him such genuine gratification as this public recognition (*laudare a viris laudatis*) by his brother officers of the good service which he has done in India, both as a surgeon and as a man. And indeed it may be truly said of him, "*Nihil quod tetigit non ornavit.*" After the usual loyal toasts had been proposed and duly honoured, General Alexander, R.A., responding for the Army, and Sir A. Armstrong for the Navy, the venerable chairman, who was frequently applauded throughout the evening, proposed, in terms eulogistic of his well-known honesty of character and purpose, the health of Sir Joseph Fayrer. Sir Joseph, whose rising was the signal for a storm of applause, dwelt gracefully, in returning thanks, on his indebtedness for all the honours he had won to his first and fast friend,(a) the chairman; and in giving a sketch of the Royal tour (with a running commentary upon it) he heartily expressed his great gratitude to those medical officers who had supplied him with information and advice relative to the avoidance of the cholera-stricken tracts, over which it had been originally arranged that his Royal charge should shoot. Well indeed was it for England that, amid the conflicting counsels which prevailed amongst the party, the medical charge of the expedition was in the hands of a man of judgment and decision, who did not hesitate promptly to stay the Royal impetuosity and fearless love of sport. *Prius quam incipias consulto, et ubi consulueris mature facto opus est.* Sir Joseph's speech, though delivered in a remarkably self-contained manner, was modest and effective. *Virbonus dicendi peritus.* Professor Maclean, of Netley, proposed, in a few flowing sentences—*ore rotundo*,—the health of the guests. Dr. Mouat, H.M. British Forces, and Mr. G. Pollock, of St. George's Hospital, responding—the former for the military, the latter for the civil element. Without disparagement to the other speeches, it must be conceded that Mr. Pollock's was one of the best of the evening—manly, and occasionally even eloquent. Dr. F. Mouat, *quondam* Inspector-General of Gaols in Bengal, proposed, in his well-known humorous vein, the health of Lady Fayrer. Sir Joseph returned thanks in suitable terms, proudly acknowledging that in the great matrimonial lottery he had been lucky enough to draw a prize—a sentiment in which all who have the pleasure of her ladyship's acquaintance may be permitted cordially to agree. The health of the venerable chairman was drunk with enthusiasm. Sir Joseph, in proposing it, compared Ambrose Paré, whose value in a siege had been estimated as greater than that of a regiment of soldiers, with John Forsyth, who was similarly esteemed at Jellalabad.

> "A skilful leech is better far
> Than half a hundred men of war."

But twice five hundred have not equalled the acknowledged value in some of our frontier campaigns of the medical officers, who have done so much to establish friendly relations with the warlike tribes in the North of India. The social and highly successful entertainment (*ampliter et munditer convivium*) came to an end at a respectable hour. At a more agreeable one we have never been present, and great credit is due—first, to the original promoters of the idea; and, secondly, to the committee of management who so thoroughly and harmoniously carried it out. *Hæc olim meminisse juvabit.*

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The third biennial *conversazione* of the Royal Medical and Chirurgical Society was held in its rooms in Berners-street, under the presidency of Sir James Paget, Bart., on Tuesday, the 6th inst. There was a large assemblage of the profession, including most of its senior members, and a sprinkling of the notabilities of the scientific world. The suite of rooms was adorned with a valuable collection of pictures and other works of art, and presented, with the addition of an elegant arrangement of tropical plants in the centre of the meeting-room, a *coup d'œil* of considerable brilliancy and effect. Among the pictures and water-colour drawings were contributions from the collections of Mr. Prescott Hewett, Sir Henry Thompson, Mr. Hyde Hills, Dr. Hare, Mr. Donald Napier, Dr. W. M. Ord, Mr. Edwin Saunders, Mr. Brodhurst, etc. Dr. Fitzpatrick exhibited two landscapes, by Old Crome; and Mr. Donald Napier an early painting by Van Eyck, a landscape

(a) When Dr. Forsyth was at the head of the Medical Department in Bengal, the Government applied to him for the best medical officer to fill the vacant Civil Surgeoncy of Lucknow. Dr. Forsyth recommended Fayrer, who was then serving in Burmah.

by Gaspar Poussin, and a charming portrait by Sir Joshua Reynolds, painted with the utmost delicacy and expression. One very noticeable object, as connected with the profession, both in subject and painter, was a large, well-painted picture in the meeting-room, by Mr. A. A. Hunt, son of the late Mr. Thomas Hunt, the dermatologist. It represented Dr. William Gilbert, who was physician to Queen Elizabeth, demonstrating before her Majesty and Court (consisting of Lord Burleigh, Sir Walter Raleigh, Sir Francis Drake, and others) some experiments in terrestrial magnetism. Sir William Gilbert wrote the first book on the subject, entitled "De Magnete," which was published in 1600. Some fine etchings were lent by Mr. Seymour Haden and Mr. J. L. Propert; and others, which were the work of the late William Dyce, R.A., were lent by Dr. W. M. Ord. Dr. Sibson showed on the walls of the inner reading-room a most perfect series of Wedgewood Medallions in ten frames, the arrangement of which, both as to form of frames and their contents, was quite a feature of beauty in the room. Mr. Donald Napier also showed a case of Antiquities and Curiosities, including some interesting specimens of early clocks and watches, possessing all those elaborate details of mechanism peculiar to an age when life was less a hurry and a struggle than it has become within our own. Dr. Cotton had a large case of Fossil Bones of Extinct Animals from the Lower Thames Basin, a fine selection from his well-known unique collection of such remains. Mr. Liebreich showed some Bones from Pompeii nearly 1800 years old; Dr. A. Farre, a unique specimen of the *Euplectella cucumer* with sponge attached; Dr. Billing, some Stained Chalcedony Agates; and Dr. T. K. Chambers, an elegant Female Figure and Card Shell, carved by himself in pear-tree wood. Mr. Marshall sent a copy of Sir W. Stirling Maxwell's Facsimiles of the Original Anatomical Plates of Vesalius, of which only three copies are known. A collection of large and very beautiful Photographs of Italian and Californian Scenery was contributed by Sir Henry Thompson; and numerous Autotypes of Drawings by the Old Masters, of the Utrecht Psalter, etc., by the Autotype Company. Microscopical Histological Preparations were exhibited by Dr. Thin and Dr. Gowers, of tactile corpuscles, voluntary muscle and medulla; also some Ophthalmoscopic Drawings; Recent Improvements in Microscopes by Mr. Baher and Messrs. Ross; a set of Coloured Wire Models of Lissajou's Curver, by Messrs. Tisley and Spiller; and various other models of recent invention, which embraced death as well as life in their objects of utility.

ARTISANS' DWELLINGS IN DUBLIN.

On Saturday, the 3rd inst., the Committee appointed on April 22, 1876, "to consider the best means of setting on foot a movement to provide suitable and healthy dwellings for the artisans and labourers of Dublin," reported to a second conference held at the Shelbourne Hotel. The Committee, amongst other things, recommended—1. That a company be formed with limited liability, pursuant to the provisions of the Companies Act, to be called, "The Dublin Artisans' Dwellings Company (Limited)," with the following objects:—To acquire lands by purchase or on lease, and to build thereon dwellings upon improved plans for the industrial classes, with power to let or dispose of such lands or dwellings; to alter, repair, and adapt the existing residences of the industrial classes, with a view to provide them with more healthy and comfortable homes; to make advances for the building and improvement of dwellings under the supervision of the Company. 2. That the capital of the Company shall be £50,000, to be divided into 5000 shares of £10 each, with power to increase such capital. 3. That the funds of the Company be vested in trustees, and that the management of its affairs be entrusted to a directorate of at least seven members. 4. That the maximum dividend be £5 per cent., and that surplus profits after payment of dividends be devoted to the extension of the Company's operations. These recommendations were adopted by the meeting, and a prospectus submitted by the Committee was approved of. It was announced that Sir A. E. Guinness, Bart., M.P., and Mr. E. C. Guinness were each prepared to take £5000 worth of shares. The chairman, Mr. Justice Fitzgerald, also promised to invest £1000 in the undertaking; and it was stated that altogether £13,000 of the proposed capital had been already subscribed. We wish the "Dublin Artisans' Dwellings Company (Limited)" every success.

PETITION FOR THE AMENDMENT OF LORD CARNARVON'S BILL.

The following form of petition has been prepared and circulated among the members of the British Medical Association by the Parliamentary Bills Committee of the Association, and copies for signature may be had on application to the General Secretary, 36, Great Queen-street, W.C.:—

"*Petition for Amendment of Lord Carnarvon's Bill for 'Prevention of Cruelty to Animals.'*

"That your petitioners are of opinion that the Bill now before your Lordships, entitled 'The Cruelty to Animals Act, 1876,' will, if passed into law in its present shape, seriously impede the progress of research into the laws and functions of life in health and disease, will retard the advance of medicine, will prevent the complete and satisfactory instruction of students in important branches of knowledge necessary for their future efficiency as medical practitioners, and will thus be injurious to the cause of humanity.

"That your petitioners do therefore earnestly pray your Lordships to give favourable consideration to the amendments of the said Bill, proposed by the Parliamentary Bills Committee of the British Medical Association, in a report dated May, 1876, and to a like report of the General Medical Council of Great Britain, of the like date, and especially pray that, if your Lordships pass the said Bill, you will make therein amendments, which will have the effect—

"1st. Of amending the title of the said Bill in such manner that it shall not seem to impute to physiologists and to teachers in medical schools a disposition to cruelty.

"2nd. Of widening the limits of research by experiment, so as to include, as heretofore, all subjects of research which can conduce to new knowledge of facts or laws of life, or additions to medical and physiological knowledge.

"3rd. Of permitting the practice of experiments of research in non-registered places by licensed persons under special certificate.

"4th. Of omitting the limitation which the Bill imposes on the animals which may be subjects of experiment, and removing the exemption of cats and dogs, which Clause 5 proposes, seeing that the domestic flesh-eating animals are most necessary for many subjects of important inquiry.

"Your petitioners, in making these earnest requests, are animated by the sentiments of humanity which are prevalent throughout the nation, and which are especially dear to them whose profession it is to pass their lives in the prevention and cure of suffering and disease.

"Intimately acquainted with the nature and object of the studies which the Bill proposes to regulate, your petitioners earnestly trust that you will amend, as they now pray, the provisions of this Bill, which threatens to arrest, if not to destroy, in this country, the pursuit and diffusion of a kind of knowledge most necessary for widening and strengthening the bases of medicine, and for multiplying and improving the means by which the laws of life may be more fully learned, the beginnings of disease more readily checked, the action of remedies more clearly perceived, and the art of healing rendered more certain and more beneficent."

HEALTH OF SIR WILLIAM FERGUSSON.

We learn that Sir William Fergusson's symptoms have varied but little during the past week. His nights have generally been good; he takes a fair amount of nourishment, and has no acute suffering. But we regret to hear that he is seldom able to leave his bed on account of weakness and dropsical swelling of the legs.

THE DEATH-RATE IN DUBLIN.

We have received a pamphlet, compiled by Dr. Charles Cameron, Professor of Hygiene and Chemistry, Royal College of Surgeons, and Medical Officer of Health and Analyst for Dublin, "On some Fallacies in the Present Method of Calculating the Death-rate in Dublin." The details were read before the Public Health Committee of that city on April 13 last, and were ordered to be printed. Dr. Cameron admits that the high death-rate which has lately prevailed in Dublin has naturally created uneasiness, and explains that Dr. Mapother has investigated its causes, which he believes to be the severe weather which has been experienced, almost without intermission, since Christmas. Dr. Cameron appends statistics in support of his assertion that the death-rate among the people of Dublin is not higher than amongst the suburban population, but want of space compels us to omit them. His concluding remarks must, however, be looked upon as significant; he says:—"In publishing this paper it is not with the intention of endeavouring to prove that the sanitary condition of Dublin is as good as we can reasonably hope to make it. My sole object in so doing is to show that the citizens of Dublin live as long as the inhabitants of the adjacent districts. It appears to me that the death-rate in the whole county of Dublin, including the city, is very high. We should carefully investigate the causes which conduce to this apparently (at least) unsatisfactory condition of the public health." If the death-rate of Dublin is, as Dr. Cameron allows, "very high," the agitation which has lately been set on foot to reduce it has not come one moment too soon.

SERIOUS ACCIDENT TO DR. ARTHUR FARRE.

The profession will have heard with great regret of the very serious accident that has happened to Dr. Arthur Farre. We learn, from inquiry at Dr. Farre's house, that while in his dressing-room at the back of the house, between six and seven o'clock on Tuesday afternoon, he heard some noise on, as it seemed to him, the roof; and while leaning out of the window, and gazing upwards, to see, if possible, the cause of the sound, he unhappily overbalanced himself, and fell a distance of some forty feet, coming first on the sloping roof of the consulting-room, and then falling on to the leads over the kitchen. He was quickly seen by Mr. Prescott Hewett, Mr. George Pollock, and Sir James Paget, who found that he had a severe compound dislocation of the right ankle, with fracture of one of the bones of the leg; but he appears, we are happy to say, to have escaped without any blow on the head or injury to the trunk. He was perfectly calm and collected when assistance came to him immediately after the fall, and at once explained how the accident had happened; and, we are glad to report, has gone on well since.

ROYAL COLLEGE OF SURGEONS.

The time for sending in nominations of Fellows for seats in the Council of the College having expired, we are now enabled to publish the names of the candidates for the four vacant chairs. Messrs. John Simon, F.R.S., G. M. Humphry, F.R.S., and Luther Holden offer themselves for re-election. The new candidates, taking them in seniority, are Messrs. E. L. Hussey, of Oxford; William Adams, of Henrietta-street, Cavendish-square; and C. G. Wheelhouse, of Leeds. As there appears but little doubt that the retiring members will deservedly be re-elected, the contest for the late Mr. Southam's seat will be between the three last-mentioned gentlemen.

DIFFICULTIES OF THE YORK RURAL SANITARY AUTHORITY.

The Board of the York Rural Sanitary District is in a difficulty with respect to the appointment of a Medical Officer of Health for the district. A short time ago the Board resolved to reduce the salary of Mr. Marshall, the late Medical Officer of Health for the district, from £200 to £100 per annum. Mr. Marshall refused to accept that amount, and the Board advertised for a successor, but met with no response. The Board again advertised, this time offering £150 per annum, but with no better result. Mr. Marshall, however, agreed to take that sum if the appointment were guaranteed to him for five years, but the Board refused to enter into an agreement for more than one year. Finding that Mr. Marshall would not accept the appointment on these terms, the Board decided to again advertise for the services of a duly qualified person willing to discharge the duties for the sum of £150 per annum. We trust that no one will be induced to come forward to interfere in the dispute existing between the York Rural Sanitary Board and its late Medical Officer.

PARLIAMENTARY.—POLLUTION OF RIVERS—SEWAGE—CORONERS—LONDON MUNICIPAL GOVERNMENT—POOR-LAW AMENDMENT BILL.

In the House of Commons, on Friday, June 9,

Mr. Sclater-Booth, in moving for leave to bring in a Bill to make further provision for the better prevention of the pollution of rivers, said that a Royal Commission had been sitting for many years, and last year the final volume of their report was published. The time had therefore arrived when something ought to be done. The alarm of the manufacturers had been so difficult to deal with that successive Bills had been brought in and withdrawn. The Bill introduced last year by Lord Salisbury might have been passed if it had not been for the late period of the session at which it came down to that House. The present Bill proposed to enact generally that rivers were to be kept free from pollution, and that their pollution in various ways was to be a statutable offence. It was intended to prohibit the casting of noxious refuse, whether manufacturing or mining, into rivers so as to pollute the stream or to impede navigation. The second part of the Bill related to the mode of dealing with the sewage of towns, and it was proposed that the pollution of rivers by that means should also be made a statutable offence, but that ample time should be given within which proceedings should be instituted, as well as ample time to the authorities within which to construct necessary works. There was nothing in that portion of the Bill more stringent than had for many years been the law with reference to the streams which flowed into the Thames and the Lea, in both of which cases the arbitrary power of preventing the throwing of noxious sewage into those streams had been prohibited. The manufacturing and mineral pollution of rivers stood in a very different position, but it was not deemed expedient in such a Bill as the present to make any exceptions from the general obligations of the law, but it was proposed in the case of manufacturing and mineral pollution not only that ample time should be given, but that industrial interests should be duly considered, and that no prosecution should be instituted except by the public sanitary authority with the sanction of the Local Government Board. Up to that point the Bill stood very much in the position of that which had passed through the House of Lords last year, but there were two or three important additional provisions. It was proposed to constitute a Conservancy Board, which would take in hand the function of carrying out the necessary works, and that the sanitary authorities might be permitted to pass by-laws and regulations and give facilities for the use of their sewers. The prosecutions under the Bill were to be carried on before the county court judges, as under the Bill of last year.

Leave was given to bring in the Bill.

On Tuesday, June 13,

Mr. Sclater-Booth, replying to Mr. R. Yorke, said that he was unable to state how soon Mr. Rawlinson's report on sewage would be presented to the House. It was, however, in print, and had gone to be revised.

Lord F. Hervey gave notice that on Monday, July 11, he should call attention to the law of coroners and of coroners' inquests, and should move a resolution.

The Poor-law Amendment Bill passed through committee.

We hear with pleasure that Mr. N. H. Clifton, F.R.C.S., one of the most respected practitioners in Islington, has been appointed a magistrate for the county of Middlesex.

FROM ABROAD.

Professor Vulpian.

We have more than once referred to the attempts which have been often made at the Académie des Sciences to exclude practitioners, however distinguished, from their own section of medicine and surgery in favour of pure physiologists; and, as our readers are aware, Prof. Vulpian again defeated the attempt, having been elected by thirty-two votes to the twenty-four of Prof. Marey. On the next occasion of his lecturing after his election, the new Dean of the Faculty addressed the following in reply to the enthusiastic reception which the students accorded him:—

"I thank you for these marks of sympathy which you have manifested on the occasion of my election yesterday into the Académie des Sciences. This election is for me far more than a mere personal satisfaction. It is a success for the Faculty and for medicine in general; in a word, it is a homage paid to our profession. A struggle had arisen in the Academy between medicine and the other sciences. A party was formed in opposition to medicine—a sort of enterprise, being organised in order to prevent its admission into the Academy. The *savants* who proposed to themselves this object, especially founded their procedure on the absolutely false idea that medicine is no science. We need not be greatly astonished at this, for these *savants* know nothing of medicine but its name, and are therefore ignorant of the fact that under many of its relations it merits the appellation of *science* just as much as do botany, zoology, physiology, physics, and chemistry. The enterprise, the success of which they so earnestly sought, has failed, thanks to the activity brought into play in the defence of medicine by some of my colleagues in the Faculty, amongst whom I have the pleasure of mentioning in the foremost rank Profs. Gosselin and Wurtz. Happy do I feel in having been the victorious champion in this contest. I am gratified by it, because the honour which has been bestowed upon me is the crowning of my scientific career, and because this title realises the ambition of all my life—that of being rendered as powerful as possible, in order to do the most good possible."

Foreign Practitioners in France.

Queries are not infrequently addressed to ourselves and our contemporaries as to the circumstances under which foreign practitioners are allowed to practise in France. It has long been a matter of complaint with the profession in that country that this is allowed with far too great facility, and a Bill, which is pretty certain to be carried, has been brought into the Chamber of Deputies for its restriction. At its first reading, M. Roger-Marvaise explained the reasons for its introduction. The State, he observed, in conferring a monopoly on the medical profession, assumed the moral obligation, in the interests of the public health, of ascertaining that individuals wishing to follow it possessed the necessary knowledge, and conferred upon them certain titles as signs of its guarantee. For this reason it has just obtained the repeal of the law of last session, which enabled a mixed jury to perform this duty, and has again confided it to the Faculties appointed by the State. For the same reason, the present Bill calls for a modification of the law of the 19th Ventôse of the year xi., which allows the Government, if it sees fit, to accord to a foreign physician or surgeon, or graduate of a foreign university, permission to practise his profession in French territory. In virtue of this law, each succeeding Government has accorded the right of practice to numerous foreigners without their undergoing the examinations which are compulsory upon natives. Very few of these, it is true, have the advantage possessed by French doctors of practising in any part of France; but many have the same privilege as *officiers de santé*—that of practising in the departments only where they wish to establish themselves; and others, again, are still more limited, confining their practice to certain towns, usually winter health-resorts. The operation of this law has long been complained of by the profession, for it allows foreign doctors to practise in France who would not be allowed to do so in their own countries without having undergone a State examination. The Government, it is true, is at liberty to refuse this concession; but it finds it very difficult to resist the solicitations of the foreign representatives, who apply armed with this clause of the law of the year xi. There is also no reciprocity in the matter, for in no country in Europe can the holder of a French diploma practise his profession without undergoing an additional examination. And so, also, should foreigners who wish to practise in France be compelled to pass the same examinations as Frenchmen; and why, if they are worthy of the favour they seek, they should hesitate to undergo these, which would be for them a mere formality, it is not easy to understand. They may be fairly exempted from attendance on lectures, the presentation of a diploma being sufficient to insure an immediate examination, which would prove whether this had been too easily accorded. For some years past the lower degrees of French practitioners, the *officiers de santé*, have been in the habit of obtaining abroad the title of doctor with an ease not practicable in France, or even by purchase; the law only stigmatising this as "reprehensible vanity," but not a criminal offence.

To remedy these evils, the new Bill enacts—(1.) That the Minister of Public Instruction may accord to the graduates of foreign universities, and to foreign physicians and surgeons, on the presentation of their diplomas, a dispensation from attendance on lectures, etc.; but a foreigner cannot in future be authorised to practise medicine or surgery in the territory of the French Republic until he has undergone the examinations prescribed by the law. (2.) No Frenchman practising the medical profession can assume the title of doctor unless he has obtained it from a French Faculty.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, June 6.

The Annual Medical Meetings: Irish Medical Association—Royal Medical Benevolent Fund Society of Ireland.

Once more I am privileged to tell you something more of our medical *Jour de l'An*, on which so many of our country brethren have an opportunity of grasping the hands of those whom they have not seen for many months, while our metropolitan physicians and surgeons hold out the right hand of fellowship to visitors from all parts of the country.

The Irish Medical Association spent the busiest day. At 9 a.m. the members were entertained at breakfast in the Shelbourne Hotel, Stephen's-green, by Mr. Henry G. Croly, the chairman of the Council. Nearly 200 guests sat down to an admirable repast. The company included the Right Hon. the Lord Mayor, the Presidents of the Colleges of Physicians and Surgeons, and of the Obstetrical Society, etc. The annual general meeting was held at noon in the Library of the Royal College of Surgeons, Stephen's-green. The chair was taken by Dr. Samuel Chaplin, of Kildare, President of the Association, who delivered an introductory address. The report was read by Dr. John H. Chapman, Honorary Secretary. It mentioned that an amalgamation between the Irish Poor-law Medical Officers' Association and the Irish Medical Association was on the eve of being accomplished. Allusion was made, amongst other matters of great professional interest, to a very important case, affecting the interests of dispensary medical officers, which had recently been decided. The case was that of a dispensary medical officer who gave evidence at petty sessions against defaulters under the Vaccination Acts. The Guardians refused to pay him the fee of one guinea for his services, and the Local Government Board declined to interfere in the matter. The Council of the Association, however, supported the medical officer in pressing his demand, and the case was tried at quarter sessions, with the result that the Guardians were ordered to pay the fee and the whole costs of the trial.

At the conclusion of the report, a most satisfactory statement of accounts was made. Dr. Martin, of Portlaw, proposed, and Dr. Nugent Duncan, Ballybrack, seconded the adoption of the report, which was carried. A number of resolutions were subsequently passed, relating to contemplated reforms in the Irish Poor-law and Public Medical Services, and the officers for the ensuing twelve months were elected. The new President is Dr. James Martin, of Portlaw, and the Vice-Presidents are Dr. Darby (Bray), Dr. Samuel Browne (Belfast), Dr. Brodie (Limerick), and Dr. Nolan (Gort). The result of

the election is that the amalgamation of the two associations, already spoken of, has become *un fait accompli*.

Dr. James Martin was called to the second chair, and a vote of thanks having been awarded to the press and to the retiring President, the proceedings terminated.

The annual dinner took place in the evening in the Albert Hall of the College of Surgeons.

The Royal Medical Benevolent Fund Society of Ireland met at four o'clock in the new hall of the King and Queen's College of Physicians, Kildare-street. The President of the College, Dr. S. Gordon, took the chair. The meeting was very largely attended.

The chairman having opened the proceedings in a short speech, Dr. A. H. M'Clintock, one of the honorary secretaries, read the annual report, in which it was stated that during the past year grants to the extent of £180, in anticipation of the annual distribution, had been made, and the amount now proposed to be distributed was £1221. The income from subscriptions was about £50 or £60 less than in the preceding year, but as donations to the extent of £350 had come in, the financial position of the Society might be considered satisfactory. Of this sum £26 had been contributed by students of medicine. Dr. J. Magee Finny then read the statement of accounts, after which Dr. Hamilton moved, and Dr. Martin (Portlaw) seconded the adoption of the report. Some other resolutions having been put and carried, a highly successful meeting terminated with the usual votes of thanks to the press and to the chairman.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, May 12.

Sir William Jenner, Bart., K.C.B., M.D., D.C.L., F.R.S., President, in the Chair.

Subcutaneous Osteotomy.

Mr. Maunder read a paper on subcutaneous section of bone, and exhibited patients to show how great and important results may be obtained with comparatively little risk. The femur was the bone concerned in all the five cases. Two of these operations had been performed on the same patient, with an interval of some twenty months. This patient, M. A. J., now ten years of age, had been the subject of hip-joint disease, which had left the left thigh fixed by fibrous anchylosis at a right angle to the line of the spine, the head of the femur being wasted and displaced upon the dorsum ilii. Notwithstanding section of contracted muscles and subcutaneous division of the neck of the bone, as suggested by Mr. William Adams, the deformity was in no way lessened, and Mr. W. Adams himself also failed a week subsequently in a similar case. This failure led the author to consider how otherwise to act. The outcome was the operation described, illustrated with such gratifying results. After alluding to Messrs. Broadhurst, L. S. Little, W. Adams, and Gant as pioneers in this department, he pointed out that while a certain number of cases of deformity at the hip-joint were remediable by section of the neck of the femur, a large number of instances of deformity in this region were not suited to that operation, but could be readily relieved by a division of the femur at a suitable point below the upper extremity of this bone. Three cases were given, of which that of the child M. A. J. above alluded to is typical. The first operation on her having failed, a second was performed, but below the lesser trochanter. Operation: Following the method suggested by Professor Volkmann of Halle, Mr. Maunder uses chisels and a mallet. He employs a double-edged knife for the puncture of the soft parts, and lays great stress upon dividing these in such a manner that when the operation is completed the wound in the skin shall not communicate directly with the wound in the bone. He advocates, also, great care when one instrument is replaced by another, as the knife by a chisel, and one chisel by another, the one instrument being used as a guide to the other. The wound may or may not be closed by a catgut suture, and a compress and strapping are employed. Bony union must be encouraged by rest and a suitable splint. He deemed it important, also, to support the soft parts about the wound in order to prevent oozing into the track of this by the application of a sand-bag after the patient had been returned to bed. Such was the nature of the second operation on M. A. J. above mentioned. After both, primary union of the soft parts occurred. The child was shown, standing erect and with her lower extremities parallel. Another instance was that of a young man, twenty-one years of age, who had been the subject of hip-joint disease for seventeen years, and in whom a discharging sinus still existed and does exist. The same operation was performed, and the deformity has been remedied; he can stand erect with the lower extremities parallel. Possibly the most interesting case, and that showing the great importance of osteotomy, was that of Richard H., aged thirty. He was a sailor by occupation, and having broken his left thigh at sea, and being without surgical aid, the fragments had united at an awkward angle, and with complete eversion of the foot. The man stated that the leg was perfectly useless to him as a sailor by reason of this eversion of the foot, and was most anxious to have something done to remedy this condition. Here the shaft of the bone was divided; the foot could then be turned to the required position, and was so maintained. The wound healed primarily; the man never had an ache or a pain or a disturbed night, and in six weeks bony union had occurred. Thus this patient, who at thirty years of age was deprived by the accident of his means of livelihood to which he had been educated, was by the operation restored to usefulness. In contemplating osteotomy in reference to the upper extremity of the femur, the point at which the bone is to be divided must depend upon the altered and relative condition of parts. Mr. W. Adams's operation (section of the neck of the thigh-bone) appears to be applicable to cases of anchylosis and deformity in which the head of the bone remains in the acetabulum, both without material loss of substance, and also in the absence of much surrounding thickening about its neck. On the other hand, if there be great thickening, requiring an extensive use of the saw, so as to leave large surfaces of sawn bone in apposition, this extent of surfaces alone will prevent a restoration of the extremity to the desired position, and small benefit only will result from the operation. Also, cases of hip-joint disease associated with more or less loss of substance, displacement of femur, fixity of its upper extremity by fibrous anchylosis and shortened muscles, and distortion of the limb, are not suited to it, as was proved by the first operation on M. A. J., where the deformity could not be remedied by it. Here it is that section of the bone below the lesser trochanter will make the surgeon quite independent of the fixed upper end of it, and will allow him to place the extremity in any position he may think fit, and insure the greatest prospective benefit to his patient. Thus it will be evident that the large majority of cases of severe deformity resulting from disease of the hip-joint will be best remedied by the division of the thigh-bone at some point below the lesser trochanter, whilst a minority will still remain best suited to section of the neck of the bone. The author felt justified in saying that the three patients whom he exhibited illustrated the value of the operation described, and the result is that they who were previously burdens upon, can now become useful members of, society.

Mr. William Adams said the members of the Society would congratulate Mr. Maunder upon the success of his operation of partially dividing the shaft of the femur below the small trochanter, subcutaneously, by means of the chisel and mallet; and then breaking through the remaining portion, so as to allow of the limb being afterwards set in a straight position, and firm union obtained. In the three cases exhibited, deformity had been overcome, and the limbs were both straight and useful. This operation will be found applicable to a class of cases in which the operation of subcutaneous division of the neck of the femur cannot be performed, in consequence of structural alterations from disease in the head and neck of the bone. Another operation, in the same situation, and applicable to a similar class of cases as Mr. Maunder's, had previously been performed by Mr. Gant, who used the small subcutaneous saw instead of the chisel and mallet, partially dividing, and then breaking the bone. Mr. Gant has twice performed this operation successfully, no suppuration occurring in either case. Mr. Adams observed that he had also twice divided the shaft of the femur subcutaneously with the small saw for badly united fractures; and once the shaft of the humerus, for straight anchylosis of the elbow-joint. In one case no suppuration followed, and but very little in the other. Subcutaneous osteotomy, Mr. Adams observed, has of late received a great stimulus, but bones cannot always be divided with the same degree of safety or freedom from inflammation as tendons, though the great majority of the cases operated upon have

proceeded just as favourably as subcutaneous tenotomy. There are now three subcutaneous operations for dividing the neck or shaft of the femur in cases of bony, and sometimes in fibrous anchylosis of the hip-joint—cases which were not previously amenable to treatment, except by operations of such magnitude as those of Rhea Barton of Philadelphia, and Sayre of New York. 1st. The operation proposed by Mr. Adams, of subcutaneous division of the neck of the thigh-bone, applicable to all cases of anchylosis in which there is but little diminution in size or alteration in shape of the head and neck of the femur. Twenty-four of these operations have been recorded, with only one death from pyæmia, and one eight months after the operation from chronic suppuration with kidney disease. 2nd. Mr. Gant's operation of dividing the shaft of the bone subcutaneously with a small saw just below the small trochanter, applicable to cases in which the neck of the femur could not be divided in consequence of the structural alterations from disease. 3rd. Mr. Maunder's operation in the same situation as Mr. Gant's, and applicable to similar cases, but performed by means of the chisel and mallet. Mr. Adams's experience led him to prefer Mr. Gant's operation when the neck of the femur cannot be divided, and he believed that the small subcutaneous saw will be found a more manageable instrument than the chisel and mallet.

In reply to a question by Mr. Sydney Jones, Mr. Adams stated that he had not succeeded in retaining motion in any of the five cases in which he had divided the neck of the femur, but Mr. Jessop (of Leeds), Mr. Lund (of Manchester), and Dr. Sands (of New York) had all succeeded in retaining motion.

Mr. Gant had performed subcutaneous osteotomy of the femur below the trochanters in December, 1872. The case was that of a boy, six years old, with anchylosed hip and malposition of limb. The punctured wound healed by the first intention, and the limb was made straight and sound, with which the patient could walk well. He thought section here was preferable to division in the neck, especially in scrofulous disease. He used a tenotomy-knife and saw. Another case operated on at the time had been lost sight of.

Mr. Sydney Jones thought that where the object was merely to get rid of deformity Mr. Maunder's plan would be very useful, though he thought Mr. Adams's plan did more to cure the deformity. He showed photographs of a case where there was double anchylosis, and here it was very important to select a proper point for the operation. To secure motion it was quite necessary to divide the neck of the femur, in order to obtain the action of the pelvic muscles. Sometimes there was great difficulty in retaining movement.

Mr. Bryant said there were two operations before the Society. He had little experience of Mr. Maunder's plan, but he had operated four times on Mr. Adams's method. In three cases the disease was strumous; in the fourth due to pyæmia. The limbs were at right angles to the pelvis, and in two there was shortening of the femur. In all excellent results were obtained, and he would prefer this operation whenever any neck was left. On the other hand, Mr. Maunder's plan was admirable after fractures leaving deformity. Of course there could be no motion. But in division of the neck Mr. Lund's case showed what might be hoped for. He thought Mr. Adams's the simpler operation.

Mr. Heath suggested that if we could get motion after Sayre's operation, it would be an improvement. There was often great difficulty in retaining movement.

Mr. Sydney Jones said in the case referred to he kept up movement for five months. After that the man struggled to use his pelvis.

Mr. Adams had not succeeded in retaining motion in his own five cases, but it had been done, and could be done. He would prefer the saw to the chisel, as it necessitated a smaller opening.

Mr. Gant's object was to obtain a fixed union, not a false joint.

Mr. Maunder thought the instrument a matter of choice; there was risk of Volkmann's chisel sticking in the bone. An attempt to secure a false joint might end in miscarriage. In some cases he thought the head of the bone had probably become absorbed.

A Case of Intestinal Concretion passed per Anum.

Mr. Leggatt read the report of this case. The patient, a girl, aged three, of fairly good health, after a month of unusual constipation and deficiency of appetite, awoke at 2 a.m. with vomiting, which continued at intervals for twelve hours. During that time, two solid motions followed by loose stools passed, and there was some abdominal pain. The temperature in the evening was 102°; and the child was drowsy throughout the day. On the next day, it was reported that the child had had a restless night, and that motions were passed every hour, accompanied by pain and tenesmus. Temperature 99°. The child took notice, but was pale and feeble. The tongue was thickly coated and white. The abdomen was flat, soft, and free from pain. The motions were frequent, and consisted chiefly of mucus, with a little fæculent matter, and here and there a streak of blood. Pulse 120; temperature 100°. Milk, lime-water, and rice-water were given as food. On the following day, the diarrhœa was arrested for fifteen hours by an enema containing three minims of tinctura opii in starch. Severe abdominal pain, however, supervened during that time, and the temperature increased to 104°. The pain ceased on the return of the diarrhœa; and the temperature soon fell to 99°. The motions became less frequent, and contained more fæculent matter. The child continued to improve; on the fifth day the concretion was passed per anum, without pain; the diarrhœa then subsided; and on the tenth day the child was well. Before the above illness the child had had occasional feverish attacks, with pale, almost white, motions; and since the illness there had been three attacks of vomiting, with white motions, but without fever. Each attack lasted two or three days. For many months before the illness the child had eaten brown bread daily. The concretion had the appearance of similar bodies found not rarely after death in the appendix vermiformis. Analysed by the late Mr. S. W. Moore, at St. George's Hospital, it was found to weigh seven grains and a quarter; its length was three-quarters, breadth three-eighths, and depth one-quarter of an inch. In 100 parts it contained 22 of organic matter and 78 of ash. The 78 parts of ash contained 30 of bone-earth, 8·2 of alkaline phosphates, and 39 8 of chlorides, etc. A microscopical examination showed the organic matter to consist of starch granules and wheat-husk. A section of the mass presented a laminated appearance. The examination of the concretion, and the fact of the child having been in the habit of eating brown bread, perhaps afforded an illustration of the mode of formation of these bodies. Other causes, besides the concretion, perhaps, produced the illness—such as the habitual constipation of the child, the iron of the Ascot water, etc. But, on the other hand, the concretion might have set up inflammation of the mucous membrane around it, and then possibly the severe vomiting and purging dislodged it. There was not, however, throughout the illness any noticeable pain or tenderness in the region of the cæcum.

The President remarked that the concretion looked as if it came from the appendix vermiformis. There might be no pain in such cases until ulceration had extended to the sub-peritoneal coat. The difficulty in expelling bodies from the appendix was due to its valvular shape. Little bodies might enter, but could not pass back again. In this case the concretion probably escaped during the act of vomiting.

Mr. Gant said that in one case the impaction of a bean had been followed by abscess and death. In another case peritonitis had proved fatal.

The President had examined several cases like Mr. Leggatt's which had terminated fatally. He had often read of foreign bodies in the appendix vermiformis, but had not seen one. He had often seen concretions there, probably due to hardening of fluid poured out by the irritation of a particle of fæces.

Dr. Bastian had in one case found the operculum of a whelk in the appendix. The patient had been eating whelks about a fortnight before. The operculum swallowed had caused inflammation of the appendix, and thrombosis of the portal vein.

Dr. Duckworth had usually found fæces in the appendix.

Dr. T. Williams had often seen cases of inflammation of the appendix from fæcal matter. In one such case the patient recovered, but subsequently died of pneumothorax. The opening into the appendix was found to be blocked with lymph.

Dr. Duffin mentioned the case of a boy who had died from a concretion of hair in the appendix. He had eaten largely of plum-pudding bought at a particular shop, and subsequent inquiry detected hair in the pudding bought there.

Dr. Greenfield had found the appendix curled on a meso-appendix; and

The President remarked that in all the fatal cases he had seen the appendix had been bent, so that the fæces passed down, but could not get out; then ensued inflammation,

ulceration, and death. In one case the appendix was folded up behind the cæcum. When quite straight he thought it would be possible for the fæces to return. Most of the patients he had seen were boys.

MEDICAL NEWS.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Ashby, Alfred, M.B. Lond., F.R.C.S.—Medical Officer of Health for the combined Urban Sanitary Districts of Grantham, Newark, Sleaford, Little Gonerby, Ruskington, and Spittlegate, and Rural Sanitary Districts of Grantham, Newark, and Sleaford, has been re-elected for three years, from July 23.

Bowes, John Ireland, M.R.C.S. Eng., L.S.A. Lond.—Assistant Medical Officer to the Northampton County Lunatic Asylum.

Bradford, Cordley, L.S.A.—House-Surgeon to the Queen's Hospital, Birmingham, *vice* Dr. Bissett Smith, resigned.

Davison, Francis V., M.B., C.M.—House-Surgeon to the Liverpool Royal Infirmary.

Gillibrand, William, L.K.Q.C.P.I., L.M.—House-Physician to the Liverpool Royal Infirmary.

Gorst, Henry, M.R.C.S. Eng.—House-Physician to the Liverpool Royal Infirmary.

Jones, John M., L.R.C.P. Edin., L.M.—House-Surgeon to the Liverpool Royal Infirmary.

Law, W. T., M.D., F.R.C.S. Eng., etc.—Resident Medical Officer to the Hospital for Consumption and Diseases of the Chest, Brompton, *vice* R. Randle, F.R.C.S. Eng., resigned.

Malins, Edward, M.D., C.M.—Surgeon to the Birmingham and Midland Hospital for Women, *vice* C. J. Bracey, M.B., resigned.

Philipson, George Hare, M.D., M.A., F.R.C.P.—Professor of Medicine in the University of Durham.

Wilkins, Robert Bird, M.R.C.S. Eng.—House-Surgeon to the Queen's Hospital, Birmingham, *vice* Dr. Thos. MacQueen, resigned.

NAVAL, MILITARY, &c., APPOINTMENTS.

War Office.—The undermentioned officers of her Majesty's Indian Military Forces to be granted a step of honorary rank on retirement:—Deputy Surgeon-General Henry Young, Madras Establishment, to be Surgeon-General. Surgeon-Major John Young Smith, M.D., Bombay Establishment; Robert Gillman Lord, M.D., Bombay Establishment; and John Mills, Bombay Establishment, to be Deputy Surgeons-General.

MARRIAGES.

Armytage—Bartley.—On June 8, at St. Paul's Church, Clifton, Bristol, Alfred, youngest son of the late Rev. J. N. Green Armytage, of Thickhollins, in the West Riding of Yorkshire, to Amy Julia, daughter of Robert T. H. Bartley, M.D., of Clifton, and of Weston-super-Mare, Somerset.

Barrington—Winscom.—On June 6, at St. Martin's, Kentish Town, Nicholas William Barrington, M.D., of Bexley-heath, Kent, to Sarah Mary, widow of the late Lieut.-Col. Winscom, Royal Madras Engineers.

Browne—Burns.—On June 7, at St. Nicholas Church, Rochester, Thomas W. S. Browne, Esq., Assistant Paymaster Royal Navy, third son of the late Thomas Browne, Esq., of College View, Dungannon, county Tyrone, Ireland, to Catherine Cowen, third daughter of Dr. John J. D. Burns, Retired Staff Surgeon Royal Navy.

Fegan—Moss.—On May 18, at St. Martin's, St. Helena, Henry Fegan, M.D., C.B., Fleet Surgeon Royal Navy, to Louisa M. Moss, daughter of George Moss, Esq., of The Briars, St. Helena.

Hindle—Beaumont.—On June 8, at St. George's, Hanover-square, Frederick T. Hindle, M.R.C.S., L.R.C.P, of Askerne, near Doncaster, eldest son of James Hindle, Esq., to Maria, daughter of Joseph Beaumont, Esq., of Almondbury, Yorkshire.

Meyer—Phillips.—On June 7, at St. Mark's Church, Surbiton, Surrey, Robert Alexander Meyer, son of the late Dr. M. I. Meyer, of Berlin, to Palmyre, daughter of Robert Phillips, Esq., of 62, Regent's-park-road, London.

Milnes—Fletcher.—On June 1, at St. Mark's, Regent's-park, Thomas Milnes, Esq., art sculptor, to Jessie Anne, youngest daughter of the late John Fletcher, F.R.C.S., formerly of Shropshire, afterwards of Feltham, Kent.

Paulson—Parr.—On June 1, at All Saints' Church, Cossington, Leicestershire, William Paulson, L.R.C.P. Lond., son of John Paulson, Esq., of Park House, near Mansfield, to Eleanor Elizabeth, only daughter of the late Thomas Carl Parr, Esq., of The Grove, Cossington.

Power—Godwin.—On June 8, at St. Mary's, The Boltons, S.W., Wm. Henry Power, Local Government Board, Whitehall, eldest son of W. H. Power, M.D., of Ladywell, Kent, S.E., to Charlotte Jane, youngest daughter of the late B. C. Godwin, Esq., formerly of Winchester.

Smith—Traill.—On June 8, at St. Paul's Church, Edinburgh, Henry Lionel Smith, M.D., of Park House, Royton, eldest son of Henry J. Smith, M.D., F.R.C.S.I., of Donaghmore House, Queen's County, Ireland, to Jessie Menzies, eldest daughter of Thomas Traill, Esq., of Holland, Orkney, and a Deputy-Lieutenant of the county.

Teague—Elles.—On May 5, at St. Peter's Church, Melbourne, Victoria, James Pascoe Teague, M.D. Melbourne, to Sybella, second surviving daughter of M. J. Elles, Esq., of Oporto.

Wharton—Perigal.—On June 8, at the parish church, St. John's, Hampstead, Henry Thornton Wharton, M.A., M.R.C.S., of 10, Boundary-road, N.W., son of the late Rev. H. J. Wharton, M.A., Vicar of Mitcham, to Caroline, daughter of Frederick Perigal, Esq., late of the Admiralty.

White—Mason.—On June 8, at All Saints' Church, Kingston-on-Thames, George Farr White, F.R.C.S., late 77th Regiment, to Alice, second daughter of Samuel Mason, Esq., J.P., of The Storks, Norbiton.

DEATHS.

Colmache, Edward, M.D., late of the United States Army, on May 22, at at Silver City, Idaho.

Congdon, W. G., L.S.A., on May 10, at Marazion, Cornwall.

Peck, W. R., M.R.C.S., L.S.A., on June 8, at his residence, 49, Richmond-road, Barnsbury.

Perkins, Richard Steele, M.R.C.S., late of Ashgrove, Overton, and the Glyn, Chirk, on June 9, at Rye Bank, Wem, in his 66th year.

Pritchard, Richard Davison, Fleet-Surgeon R.N., second son of the late Vice-Admiral S. P. Pritchard, on May 24, at Saltash, Cornwall, aged 56 years.

Roberts, Thomas, Dental Surgeon of Charing-cross Hospital and Royal Infirmary, on June 6, at his residence, 71, Margaret-street, Cavendish-square, aged 45.

Smith, Sumner Wyke, eldest son of Henry Smith, F.R.C.S. Eng., of 82, Wimpole-street, Cavendish-square, on June 2, suddenly, at Chichester.

Thynne, Anna, widow of the late Andrew Thynne, M.D., on June 3, at St. Osyth, Essex.

Twining, Martha Ellen, widow of William Twining, Esq., of the Bengal Medical Establishment, on June 2, at Stoke, Devonport.

Walsh, Mary Letitia, wife of Thomas Walsh, Surgeon-Major 9th Regiment, and daughter of Colonel Knox, late 18th Hussars, on May 10, at Murree, Punjab.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Abingdon Union.—Medical Officer. Applications, with testimonials, to Bromley Challoner, Clerk, on or before June 17.

Birmingham General Dispensary.—Resident Surgeon. Candidates must be registered and possess both a medical and surgical qualification. Applications, with testimonials, to Alex. Forrest, Secretary, on or before June 21.

Bolton Union.—Resident Assistant Medical Officer of Workhouse. Candidates must be registered to practise both medicine and surgery in England and Wales. Applications, accompanied by not more than three testimonials, to Simpson Cooper, Union Clerk, not later than June 24.

County Lunatic Asylum at Lancaster.—Resident Medical Superintendent. Applications, stating age and qualifications, with references and testimonials, to Mr. Sharp, solicitor, Lancaster, on or before June 26.

Hoxton House Asylum.—Assistant Medical Officer. Must be doubly qualified and registered. Applications, etc., to the Superintendent at the Asylum.

Lancaster Infirmary.—House-Surgeon. Applications, with testimonials, to the President, Lancaster Infirmary, on or before June 27.

St. Thomas's Hospital.—Resident Assistant-Physician and Resident Assistant-Surgeon. Candidates for the former appointment must be Members of the Royal College of Physicians or medical graduates of a University of the United Kingdom, and for the latter appointment Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to the Treasurer, at the Counting-house, Westminster-bridge.

Stokesley Union.—Medical Officer. Applications, stating age, qualifications, and previous experience, to Thomas Sowerby, Clerk, on or before June 30.

West London Hospital, Hammersmith.—Assistant-Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and not practising midwifery and pharmacy. Applications, with testimonials, to T. Alexander, Secretary, on or before June 24.

West Sussex, East Hants, and Chichester General Infirmary and Dispensary.—House-Surgeon. Applications, with testimonials, to H. Cotton, House-Surgeon and Secretary.

Wolverhampton and Staffordshire General Infirmary.—Dispenser. Candidates must be Pharmaceutical Chemists of Great Britain by examination. Applications, with testimonials, to James Hay, House-Governor and Secretary, on or before June 17.

York Rural Sanitary Authority.—Medical Officer of Health. Candidates must be registered under the Medical Act of 1858, and be qualified by law to practise both medicine and surgery in England and Wales. Applications, with testimonials, to Henry Brearey, Clerk, 1, Museum-street, York, on or before June 21.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Amersham Union.—Mr. James O. McCreary has resigned the Missenden District; area 6200; population 2382; salary £50 per annum.

Fulham Union.—Mr. F. Egan has resigned the First District; salary £50 per annum.

Penzance Union.—Mr. Robert Dunstan has resigned the Third District; area 12,656; population 10,799; salary £26 per annum.

St. Austell Union.—Mr. W. R. Goodfellow has resigned the Roche District; area 8300; population 2927; salary £25 per annum.

APPOINTMENTS.

Birmingham Parish.—Samuel A. Jolly, L.R.C.P. Edin., L.F.P. & S. Glasg., L.S.A. Lond., as Assistant Medical Officer at the Workhouse.

Burnley Union.—Samuel Lawson, L.F.P. & S. Glasg., to the Marsden District.

Dorchester Union.—Wm. Rendall, M.R.C.S. Eng., L.S.A., to the Maiden Newton District.

Dursley Union.—Henry Collins, M.R.C.S. Eng., L.S.A., to the Third District.

Penzance Union.—Wm. R. Trezise, M.R.C.S. Eng., L.S.A., to the Fourth District.

Walsingham Union.—Theodore S. Chambers, L.R.C.P. & S. Edin., to the Rainham District.

A New Adhesive Plaster.—A mixture of twenty parts of mucilage and one part of glycerine constitutes an excellent shining and supple plaster, far cheaper than the resin and diachylon, and lasting more than a year without deterioration. Three or four layers of the mixture require to be spread over each other on the linen or other stuff, allowing sufficient intervals for the successive layers to dry.—*Journ. de Méd. de Bruxelles*, March.

Aspiration in a Case of Femoral Hernia.—Dr. Thiriar related to the Brussels Medical Society the case of a woman, fifty years of age, the subject of a femoral hernia, symptoms of strangulation having persisted for four days, and repeated trials of the taxis having failed. Diculafoy's needle No. 3 was plunged into the hard and sensitive tumour, which was about the size of an egg, and some gas and about a spoonful of yellow liquid of a stercoral odour were withdrawn. The tumour now readily yielded, and was easily returned. All the symptoms of strangulation disappeared, and a purgative was at once administered. Next day the patient had two good stools. No bad symptom followed, and the woman was at once cured.—*Journal de Méd. de Bruxelles*, February 7.

Prosecution for Illegally Assuming a Medical Title.—At the Chelmsford Petty Sessions, yesterday week, Mr. J. J. Young, of Chelmsford, was summoned, at the instance of the Medical Defence Association, for that, on January 8 last, he did "unlawfully, wilfully, and falsely pretend to be, or take or use the name or title of, doctor of medicine, physician, and surgeon." Mr. Pridham, solicitor to the Association, appeared in support of the charge, but on the case being called the defendant applied for an adjournment, as his solicitor was unavoidably absent. This course was objected to by Mr. Pridham, on the ground that witness had been subpœnaed at great expense, and he had attended from London specially to conduct the case. Ultimately the Bench postponed the case for a week, on the understanding that the defendant should pay Mr. Pridham his fee and travelling expenses, together with the expenses of the witnesses.

Caution in the Use of Salicylic Acid.—Dr. Joseph Richardson relates four cases of acute rheumatism treated by salicylic acid, with the view of cautioning against too large and too frequent doses. He suggests that in adults it should be given in doses of five grains every three hours for two days, and then, if no effect is apparent, five grains every two hours or every hour for forty-eight hours more, unless vomiting sets in earlier. If, however, on the second, third, or fourth day profuse sweating, with reduction of pulse and heat of skin, occur, the temperature should be carefully observed at intervals of every six or eight hours; and when it descends to 99° the remedy should be discontinued, and quinine (or, if the thermometer points out a rapid fall below the normal, beef-tea, brandy, and carbonate of ammonia) must be promptly resorted to. By such precautions, treating the case, as it were, thermometer in hand, we can probably avoid the onset of serious or dangerous prostration, which in feeble subjects or severely complicated cases might be attended with fatal results. —*Philadelphia Med. Times*, May 13.

Peripheric Temperatures in Febrile Affections.—M. Couty related, at a meeting of the Société de Biologie, the results of some observations which he has been making in the wards of Prof. Villemin at the Val-de-Grâce, showing the variations that may occur between the temperatures of the peripheric and the more centric parts. In a great number of patients suffering from various febrile affections he placed the same thermometer successively in the arm-pit and in the hand, at different stages of the disease. On examining the resulting curves, he found in all that the temperatures were alike in both places, or differed only by a few tenths, as long as the fever persisted or increased; and in some cases of pneumonia, erysipelas, and especially rheumatism, the temperature of the hand was found to exceed that of the axilla by one or two tenths—this, however, being possibly due to want of close application in the axilla. Thus the fact is to be deduced that during the existence of fever the temperature as taken in the axilla and in the hand tends to equalisation; but when convalescence arrives, a difference between the temperatures is observed—that in the axilla falling to 37°C., and that of the hand descending to 34°, 32°, or even to 30° or 28°. M. Couty asks for co-operation in future investigations on this subject, one fact only being thus far established—viz., in all febrile diseases, except under certain special conditions, usually nervous, which require to be defined, the increase of temperature is much more considerable in the peripheric than in the centric parts of the body, the temperatures of the hand and axilla tending to equalisation.—*Gaz. Hebd.*, June 9.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

W. L.—You will find the subject very fully considered in a large volume entitled "The Marriage of Near Kin, considered with respect to the Laws of Nations, the Results of Experience, and the Teachings of Biology," by Alfred Henry Huth (J. and A. Churchill, London, 1875).

A Competitor.—The "John Hunter Medal," in gold, of the value of fifty guineas, has not yet been adjudged to any competitor for the Collegial-Triennial Prize. The award will take place in December next.

Argus, Leeds.—Although nominally a Fellow of the Royal College of Surgeons, you cannot record your votes at the next election, as it appears you have not signed the by-laws or been admitted a Fellow. You can attend the festival the same evening.

Status.—Regarding the status, in America, of dentists who have not a *medical* qualification in relation to the medical profession (a subject which has been much discussed in the American medical papers), Dr. Garretson, one of the first operating surgeons in America, and also a distinguished dental practitioner, writes:—"A mere specialist cannot and should not be received into the common brotherhood of medicine without his coming to a common platform as regards all that makes the doctor. The ophthalmic surgeon has recognised this, and to-day he holds just such a position as it is desirable he should enjoy; he has his special hospitals, but he has no college, no peculiar diploma. His general education is *alike* with his medical brethren, and, therefore, his privileges are the *same*."

Ralph G.—The lines are Gay's, thus:—

"Next gout appears, with limping pace,
Pleads how he shifts from place to place;
From head to foot how swift he flies,
And every joint and sinew plies;
Still working when he seems supprest,
A most tenacious, stubborn guest."

Medicus.—With reference to the male servants' tax, a new provision in the Budget Act has just been published, to the effect that the list is not to include male servants in certain capacities, and "shall not include a person who has been *bonâ fide* engaged to serve his employer for a portion only of each day, and does not reside in his employer's house."

Quack Advertisements.

John Houghton, F.R.S., an apothecary, and dealer in tea, coffee, and chocolate, in Bartholomew-lane, in 1682, has left an example, with reference to quack advertisements, which might be followed with advantage at the present day. In that year he commenced a newspaper, which at first failed, but was revived again in March, 1692. Houghton was a man of great perseverance, and he may be said to have trained his contemporaries in the art of advertising. When a number of quack advertisements had found their way into the paper, he put a mark above them, with the following broad hint:—"Pray mind the preface to this half-sheet. Like lawyers, I take all causes I may fairly; who likes not may stop here."

Recreation-Grounds.

The frequent complaints made by the inhabitants and others of the occupation and destruction of Plumstead Common by the military, have induced the Government to authorise the Commanding Royal Engineer at Woolwich to confer on the subject with Mr. Lloyd, the representative of the district, at the Metropolitan Board of Works. It is expected a compromise will be effected, by which the more remote part of the Common will be given up to the absolute use of the military, and the remainder be acquired by the Metropolitan Board as a place for public recreation.

London Dispensaries.

Stowe's "Survey of London," 1720, says:—"At these dispensaries not a dram of physic is given out but by bill (prescription) from one or other of the subscribers to these dispensaries (members of the College of Physicians), which still is kept upon the file, and also transcribed into a book, so that all the rest of the subscribers, the patient, or whosoever else that is concerned, may at any time be fully satisfied what was given. And here the physician having no other interest or design but to cure and oblige his patient, prescribes but a few things, and those the most efficacious he can invent. For seeing he hath no profit by the medicines he hath no temptation to multiply them, nor to disguise ordinary cheap things, to obtain great prices for them. Nor do the apothecaries that are employed here ever take the liberty to put one thing for another—a cheap for a dear,—because they would get nothing by it if they did, as having a certain salary which neither profit nor loss affects. Further, at these repositories there is the greatest assurance possible that all the drugs and preparations are good. The subscribers, by two and two, take care to buy in the choicest drugs they can meet withal. And as to the simple or compound preparations of them, the head apothecary at the College perfectly understands them all, as well chymical as Galenical. The apothecaries being always upon the spot, no patient runs the risque of a boy's carelessness or ignorance."

TACT.

The late Dr. Granville, on starting to practise in London, had the tact to fall into the style of dress and manner of the more ostentatious class of metropolitan physicians. In his Autobiography, he says that, although his cheeks were very smooth, "I had from the very commencement of my practice taken care to assume the garb of a much older person, by adopting the dress I saw Sir Henry Halford, Dr. Latham, and other popular physicians wear, at which the sprightly M.D.'s of the present day would laugh indeed. Yet was that style of dress not only in fashion then, but positively expected in a practising physician. So I donned a square-cut coat, single-breasted waistcoat, frilled white shirt, smalls with knee-buckles, black silk stockings, and buckles in pumps. I did not adopt the gold-headed cane as well, but wore powder and a broad-brimmed hat, which completed the dress. It certainly added age to my appearauce, and I was not long in getting used to it, as I had done to the more theatrical transformation in the Levaut, when I assumed the Turkish vestments, but oh! how different with the bother of buttons and buckles in the present instance." He adds, "As the dons in physic swerved from the stiff practice, I followed their steps by adopting the more ordinary day garb of all gentlemen."

COMMUNICATIONS have been received from—

Mr. JOHN PERKINS, London; Dr. CHAS. BELL TAYLOR, Nottingham; Mr. NELSON C. DOBSON, Clifton; THE SECRETARY OF THE QUEKETT MICROSCOPICAL CLUB; Dr. M. W. C. GORI, Amsterdam; Mr. F. A. ROBINSON, Northampton; THE SECRETARY OF THE QUEEN'S HOSPITAL, Birmingham; Mr. ALFRED ASHBY, Grantham; Dr. EDWARD MALINS, Birmingham; THE SECRETARY OF THE ROYAL INFIRMARY, Liverpool; THE SECRETARY OF THE STATISTICAL SOCIETY, London; Dr. HANDFIELD JONES, London; Dr. W. T. LAW, London; Mr. HENRY MORRIS, London; Dr. ERNEST HOUSTON FORJETT, Edinburgh; Mr. J. CHATTO, London; Dr. GEORGE JOHNSON, London; THE SECRETARY OF THE HOSPITAL FOR DISEASES OF THE THROAT, London; THE SECRETARY OF THE PUBLIC SUPPLY ASSOCIATION, London; Dr. PHILIPSON, Newcastle-on-Tyne.

BOOKS AND PAMPHLETS RECEIVED—

Le Docteur A. Amussat, Des Sondes a Demeure et du Conducteur en Baleine; Mémoires sur la Galvanocaustique Thermique—Lewis A. Sayre, M.D., Lectures on Orthopedic Surgery and Diseases of the Joints—Henry Maudsley, M.D., on the Physiology of Mind—J. G. Beaney, F.R.C.S., Doctors Differ: a Lecture delivered at the Melbourne Athenæum—Dr. Just Lucas-Championnière, Chirurgie Antiseptique: Principes, Modes d'Application, et Résultats du Pansement de Lister—Thomas Smith, F.R.C.S. and Wm. J. Walsham, F.R.C.S., A Manual of Operative Surgery on the Dead Body—George H. Savage, M.D., Considerations on the Cures in Insanity—Staff-Surgeon Nelson, R.N., On Three Fatal Cases of Cerebro-Spinal or Tetanoid Fever—Seventh Annual Report of the State Board of Health of Massachusetts.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—The Shield—Nature—The Analyst, May—Nordiskt Medicinskt Arkiv—The Times of India—The Morningside Mirror—The Bombay Gazette—El Siglo Medico—O Centro Pharmaceutico Portuguez—Report of the Metropolitan Board of Works, 1875—Melbourne Medical Record—Philadelphia Medical Times—The Australasian—The Belgian News—Boston Journal of Chemistry, June—New York Medical Journal, June.

APPOINTMENTS FOR THE WEEK.

June 17. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

19. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

20. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

STATISTICAL SOCIETY, 7¾ p.m. Rt. Hon. James Stansfeld, M.P., "On the Validity of the Annual Government Statistics of the Operation of the Contagious Diseases Acts."

21. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

METEOROLOGICAL SOCIETY (25, Great George-street, Westminster), 7 p.m. Meeting.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

23. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Meeting.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 10, 1876.

BIRTHS.

Births of Boys, 1213; Girls, 1059; Total, 2272.
Average of 10 corresponding years 1866-75, 2059·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	660	626	1286
Average of the ten years 1866-75	656·5	614·3	1270·8
Average corrected to increased population ...	...	...	1360
Deaths of people aged 80 and upwards ...	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	17	9	1	9	1	1	...	3
North... ...	751729	...	7	7	3	12	3	5	1	1
Central ...	334369	...	1	1	...	3	...	3	1	1
East	639111	...	6	4	1	11	...	2	2	4
South... ...	967692	2	7	12	3	25	...	2	1	5
Total	3254260	2	38	33	8	60	4	13	5	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·785 in.
Mean temperature	54·5°
Highest point of thermometer	70·0°
Lowest point of thermometer	43·0°
Mean dew-point temperature	47·4°
General direction of wind	S.W., W.S.W., N.N.E.
Whole amount of rain in the week...	0·09 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 10, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending June 10.	Deaths Registered during the week ending June 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2272	1283	70·0	43·0	54·5	12·50	0·09	0·23
Brighton	100632	42·7	63	43	65·5	47·0	54·5	12·50	0·20	0·51
Portsmouth ...	124867	27·8	90	50	.	...	...	...	...	...
Norwich	83430	11·2	37	29	67·2	44·0	53·6	12·01	0·26	0·66
Plymouth	72230	51·8	44	36	66·0	47·0	53·5	11·95	0·60	1·52
Bristol	199539	44·3	121	74	68·6	41·5	54·0	12·22	0·33	0·84
Wolverhampton ...	72549	21·4	50	29	65·2	41·7	52·3	11·28	0·70	1·78
Birmingham ...	371839	44·3	281	145	64·0	43·3	52·2	11·22	0·89	2·26
Leicester	113581	35·5	90	31	68·0	41·2	54·0	12·22	0·25	0·66
Nottingham ...	93627	46·9	40	37	68·3	39·2	53·5	11·95	0·49	1·24
Liverpool	521544	100·1	310	224	60·3	45·8	51·5	10·84	0·16	0·41
Manchester ...	357917	83·4	187	185	69·0	40·0	53·5	11·95	0·57	1·45
Salford	138425	26·8	106	62	66·9	39·9	51·1	10·62	0·55	1·40
Oldham	88609	19·0	60	41	...	...	...	...	...	...
Bradford	173723	24·1	106	88	62·0	45·0	51·8	11·01	0·57	1·45
Leeds	291580	13·5	220	119	66·0	45·0	53 3	11·84	0·24	0·61
Sheffield	274914	14·0	215	111	66·0	43·0	52·4	11·33	0·62	1·57
Hull...	136933	37·7	116	52	69·0	44·0	54·3	12·39	0·17	0·43
Sunderland ...	108343	32·8	71	35	73·0	43·0	54·3	12·39	0·23	0·58
Newcastle-on-Tyne	139929	26·1	100	52	...	...	...	...	0·16	0·41
Edinburgh... ...	215146	51·3	142	81	65·0	40·8	52·8	11·56	...	...
Glasgow	545144	90·4	413	289	60·9	43·9	52·2	11·22	0·87	2·21
Dublin	314666	31·3	133	154	66·5	38·2	52·5	11·39	0·72	1·83
Total of 23 Towns in United Kingdm	8028595	37·7	5317	3253	73·0	38·2	53·1	11·73	0·43	1·09

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·79 in. The lowest was 29·55 in. on Friday morning, and the highest 30·05 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

ORIGINAL LECTURES.

ABSTRACT OF THE

LUMLEIAN LECTURES:

THE PATHOLOGY OF THE PNEUMOGASTRIC NERVE.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By S. O. HABERSHON, M.D., F.R.C.P.,
Senior Physician to, and Lecturer on Medicine at, Guy's Hospital.

Lecture III.

The pneumogastric nerve in the abdomen is brought into the closest relationship with the solar plexus and semilunar ganglia of the sympathetic nerve, and it is very difficult to separate the pathological changes incident to the one from those which have their origin in the other. The par vagum reaches not only to the stomach, but to the liver, to the duodenum, to the supra-renal capsules, and to the kidney; and it unites with the phrenic nerve as the branches of the latter pass through the diaphragm. Although the pneumogastric is especially distributed to the muscular coats of the stomach and regulates its movements, still it has sentient branches, and, when these are irritated, pain is produced; neuralgic pain at the stomach may be due to disturbance of this nerve as well as of the sympathetic nerve. Romberg describes gastrodynia neuralgia as due to hyperæsthesia of the pneumogastric nerve, and neuralgia cœliaca as traceable to hyperæsthesia of the solar plexus. Irritation of the nerve will not only produce pain and muscular contraction, as hour-glass contraction, but vomiting, and this of several kinds; as well as altered secretion, and sometimes perverted sensation, as craving appetite. When the nerve is weakened or paralysed, another set of symptoms is observed, and we have loss of appetite, anorexia, and distension of the stomach. It will be a convenient method to consider those conditions in which we have increased irritability or spasmodic action, as shown by pain, neuralgia, hour-glass contraction, or vomiting; and, secondly, those in which there is diminished power or paralysis, in which we find anorexia or distension; and each of these may be traced to central, local, or peripheral causes.

Spasmodic vomiting	Central ...	Concussion of brain.
		Acute cerebral disease.
		Abscess.
		Tumour.
		Tubercle.
		Apoplexy.
		Over-anxiety and distress.
		Epilepsy.
		Persistent irritability of stomach.
	Local ...	Inflammation of mucous membrane.
		Ulceration.
		Cancerous disease.
	Peripheral	Phthisis; tubercle in the lung.
		Disease of heart.
		Uterine disease.
		Ovarian disease.
		Chlorosis; hysterical vomiting.
		Renal disease; disease of supra-renal capsule.
		Hepatic disease.
		Intestinal disease.
		Peritoneal, etc.
Spasmodic pains, etc.	Central ...	Perverted appetite; excessive craving.
		Neuralgia.
	Local ...	Hour-glass contraction.
		Ulceration, etc.
		Organic disease.
	Peripheral...	Cardiac disease.
Paralysis. Anorexia. Distension.	Central ...	Distension from exhaustion and nervous shock.
		Anorexia.
	Local ...	Rapid fermentation, causing distension.
		Distension from obstruction.
	Peripheral	Distension from peritonitis.
		„ „ abscess.
		„ „ empyema.

The *vomiting* produced by cerebral disease is often of the most decided character, and it is of the greatest importance that the nature of the malady should be correctly understood. To treat the stomach while the irritation is at the cerebral extremity of the nerve is often of the greatest injury to the patient. The bilious attacks of early life are very frequently to be traced to cerebral disease, and are too often overlooked till the true character of the disease is unmistakably indicated. It is not, however, every form of acute disease of the brain which induces this irritation of the pneumogastric nerve, but especially those cases where the base of the brain or the floor of the fourth ventricle is implicated. In an instance of acute meningeal inflammation in a muscular young man in Guy's Hospital, the stomach was so exquisitely sensitive that if water, milk, or any fluid were swallowed it was at once ejected with such violence that it was projected beyond the foot of the bed. After death, there was found a collection of pus in the meninges of the brain, directly pressing upon the pneumogastric nerve at its exit from the brain-substance at the medulla.

In tumours of the brain, especially at the cerebellum, the vomiting is often of the most marked character; it comes on independently of food: the tongue may be clean, and the bowels in a normal condition, but still food is rejected at irregular intervals, and especially in the morning; sometimes several days may elapse between the periods of vomiting. At times this is the prominent symptom of commencing disease of the brain; but in other cases it is associated with severe pain, and with affection of other nerves (as the optic and olfactory), with giddiness and intolerance of sound, or with epileptiform convulsion.

It is scarcely needful to refer to the vomiting, which is one of the earliest, although most insidious, symptoms of *tuberculosis* of the brain and its meninges in early life. It is often ascribed to a bilious attack, till severe convulsion comes on, or the child has severe pain in the head or is noticed to become listless and indifferent to its ordinary amusements; as effusion takes place and coma comes on, this irritable condition of the stomach ceases, but it is often reproduced if the recumbent position of the patient be changed. The pupils, at first small and irregular, become dilated and insensible; the abdomen is often contracted; the respiration is also irregular and sighing, and the skin sensitive to cold. The capillaries, losing their tonicity, easily yield to sudden pressure or blow, and again become overcharged—the *tache cérébrale*. This irritable condition of the stomach, however, does not always exist in tuberculosis, for many instances of tuberculosis occur in adults where vomiting is absent. These cases closely resemble enteric or typhus fever, and are only recognised by close observation of the temperature and general symptoms.

The same action upon the pneumogastric is observed in *direct injury* to the brain, as in severe concussion, and it is a noticeable symptom in ingravescent apoplexy: a minute vessel gives way in the brain, and the first effects are those of sudden disturbance, as in concussion, severe pain in the head, faintness and pallor, with vomiting; then, as reaction follows, further effusion of blood takes place, and the worst symptoms of apoplectic effusion into the brain are produced. It is the greatest mistake, and often very disastrous, to treat this faintness with ardent spirits; to stimulate the action of the heart increases the subsequent effusion, and renders what might otherwise be a partial injury of brain-tissue into a destruction of most important organs. The apoplectic clot breaks through into the lateral ventricle, and, reaching to the fourth ventricle, exerts direct pressure upon the origin of the respiratory and other nerves.

Disturbance of the cerebral centre of the pneumogastric may be produced by *over-anxiety of mind and distress*. A junior partner in a large commercial house had vomiting every morning; he had no pain at the stomach, the tongue was clean, the bowels regular or relaxed, the pulse compressible. There were no intemperate habits or dissipation to induce this morning sickness; the meal was taken, but in a very short space of time rejected. It was evident that the irritability of the stomach was not due to disease of that organ; and, on making inquiry, it was found that the patient had had a fall from his horse some time previously, and the fear was entertained that organic disease of the brain had commenced. Mercantile collapse came at length,—the heavy cloud of disaster broke; and when a more healthy state of money affairs was obtained, then the cerebral disquietude also ceased.

Again, we find the same irritation of the stomach produced by *epilepsy* and commencing *insanity*. The epileptic paroxysm may entirely cease, but may be replaced by attacks of nausea and vomiting, with epileptic vertigo. It is difficult to define the precise condition of brain in these cases. The cerebral disturbance, whether anæmia or other atonic change, is sufficient to produce, not a loss of consciousness, but a transient affection of the pneumogastric nerve. In the same manner, some epileptics will describe a sensation passing over them without loss of consciousness, sometimes affecting sight, sometimes the hearing, or general sensation; in these cases, it is at the cerebral origin of the pneumogastric that the gastric disorder originates.

Closely connected with these instances are others of persistent irritation of the mucous membrane of the stomach; the vomiting is constant, and continues every day year after year, till the patient is emaciated to the last degree. These cases are different from the irritable stomach which is found in hysteria, in chlorosis, and in uterine disease—the hysterical stomach, as it has been called; to these we shall have to refer presently. At first, there may have been some local or peripheral disturbance—some dysmenorrhœa, or affection of that kind—to originate the disease, but that soon subsides, and leaves a condition of great nervous exhaustion; still, the symptoms may be worse during menstruation, because the weakness is greater. The food is rejected from the stomach almost at once, it may be without pain; but, in many instances, there is soreness at the scrobiculus cordis; there is no hæmorrhage, or only of the slightest kind; mucus is rejected, and patients often refer to this as the cause of the disease. The tongue is often clean, or nearly so; the bowels are inactive; neuralgic headache is often complained of. In many cases, these patients are said to have organic disease of the stomach, ulceration, or even malignant disease; the reduction of strength may be extreme; and ordinary remedies fail to lessen the irritation. It will generally be found that those remedies are most effective which lessen nerve-exhaustion; and few are better than very small doses of ammonio-citrate of iron, alone or given in a state of effervescence; sometimes nux vomica does good, and even arsenical compounds may be used with advantage, and it is of great importance to give some kind of vegetable food. Mistakes are often made in the entire abstinence from vegetables for lengthened periods; the system becomes weakened thereby, and I have seen severe scurvy produced.

It would occupy too much time to enter into the general symptoms of *diseases of the stomach*, but we may remark that vomiting is a common symptom of inflammation of this organ, both when the disease is acute and when less severe in character, but that, although the vomiting may be exceedingly severe, there may be no pain as long as the mucous membrane only is affected. Even in acute poisoning, as by arsenic, pain may be absent at the stomach, except the soreness from continual vomiting; and in the gastritis from chronic poisoning by alcohol, excessive irritability is a constant symptom, with craving for cold drinks, but only slight tenderness of the stomach itself. It is in ulceration of the stomach that pain is such a common symptom, and it is associated with the vomiting of food; pain comes on, both at the scrobiculus cordis and through to the back, soon after the food reaches the stomach, and is only relieved by the passage of food into the pylorus, or by vomiting. These patients will often produce sickness by putting the finger into the throat, in order to spare themselves the pain of digestion. In one instance, in which the patient with chronic ulcer of the stomach gradually sank from exhaustion, I found a large branch of the pneumogastric nerve passing across the floor of the ulcer: we have previously referred to this in speaking of the physiology of the nerve. In cancerous diseases, also, vomiting and pain are common symptoms; but the former may be entirely absent if the œsophageal and pyloric orifices are free from obstruction.

In reference to those instances which are more strictly reflex in character and produced by disturbance of *peripheral nerves*, there are some most interesting illustrations in ordinary practice. The irritation of the *pulmonary* branches of the pneumogastric is a common cause of disturbance of the stomach, and constant vomiting is often produced. It is true that, in the early stages of phthisis, there are often dyspeptic symptoms, a dislike of fatty food, and an impairment of digestion; tenderness at the scrobiculus cordis, furred or patchy condition of the tongue, and irregular action of the bowels; but these symptoms are less decided then than the vomiting to which we refer. The irritation of the stomach is the prominent symptom; all food is rejected, the tongue may be furred, and unless the chest be examined with care the true nature of the malady is overlooked. The state of the stomach may lead to a cough, but the "stomach cough" of early phthisis is a most treacherous symptom, and equally so the vomiting to which we refer. It will often be found that when the disease in the chest, the tubercular deposit, and pneumonic and degenerative changes have advanced, the vomiting suddenly ceases, but only to reveal disease of the lung, which has made insidious progress during the time when treatment of the thoracic disease might have been most efficacious. This subsidence of the gastric symptoms often takes place on the occurrence of acute pneumonia or of acute pleurisy. The chest should be carefully examined, and the thermometric temperature recorded in these instances; and, if we can quiet the disturbance of the pulmonary branches of the pneumogastric, the gastric mischief will cease.

In disease of the *heart* of an organic kind, with obstruction, the stomach is affected by the mechanical hindrance to the blood; the right side of the heart being engorged, the liver is also distended, and with it the branches of the portal system of veins. In this way the coronary veins of the stomach are filled; there is profuse secretion of mucus, gastric catarrh with its attendant symptoms of flatulence, pain, distress, and sometimes hæmorrhagic erosion. We do not refer to this condition, troublesome as it is, but to one of still more serious import—namely, severe vomiting; we have this occurring in mitral stenosis as well as in dilatation of the heart. It would seem that the cardiac nerves of the pneumogastric and sympathetic induce this reflex action upon the gastric nerves—perhaps the connexion of the pneumogastric with the phrenic on the large hepatic vein may be the source of this connexion. The vomiting thus coming on at the later stage is often the precursor of a fatal termination.

The vomiting which is produced by *uterine disease* and by pregnancy is too well known to need even mention; but that which is a symptom of early ovarian disease is often overlooked. There may be no pain in the region of the ovary, no enlargement there, and the gastric symptoms may be so decided as to mislead experienced practitioners. Very similar are those cases of gastric trouble in young married people, where conception has not taken place, but where there is reflex action and sympathetic disturbance from ovarian and uterine irritation of the pneumogastric nerve. These instances are often misunderstood, because menstruation continues regularly, and, it may be, without pain. The gastric branches in this way become exceedingly irritable, and vomiting is a troublesome and harassing symptom: sometimes it is almost constant, at other times only on slight nervous excitement or over-fatigue; the excitement of going into company, or of mixing in society, may be quite sufficient to bring on severe vomiting. Of the same kind is the troublesome vomiting present in young people, with scanty or disordered menstruation and chlorosis. The food is rejected at once, almost as soon as it reaches the stomach, but without much distress; there may be scarcely any pain, and some of these patients appear to be plump and well nourished. This condition has been aptly called the "hysterical stomach," and certainly the condition is one of functional irritability. Some food is retained, for the body is not wasted; the bowels are generally confined; the pulse irritable; the abdomen often fairly distended. With this state, there are other indications of nervous excitement. The determination of the patient may do an immense deal to restrain this condition, and in a young hospital patient the cure was effected by the nurse refusing to bring anything into which she could vomit. The occupation of the mind, fresh air, chalybeate tonics, free action on the bowels by aloetic and assafœtida purgatives, often relieve this state. The steel may be given with advantage in a state of effervescence; in other instances, however, it is necessary to allow the stomach to rest entirely, and to feed the patient by nutrient injections. If the uterine and ovarian functions be disordered, these must, if possible, be rectified; and in the instances of married women, to which we have referred, it is often of great value to lessen pelvic irritation by opiate suppositories. It is of little use to treat one symptom while the cause of disturbance remains.

There are many other causes of peripheral disturbance of the pneumogastric nerve in the abdomen which we can only mention. Thus, in consequence of its connexion with the duodenum, and with the liver and gall-bladder, we find vomiting a common symptom of many diseases of these organs. The same may be said of the kidney; a branch of the pneumogastric may be traced to the renal plexus, and the sympathy of the kidney with the stomach is due to this nervous connexion as much as to the disordered secretion and altered blood. This alteration of the blood and gastric juice does not account for the vomiting and gastric disturbance which we have in calculus and some other renal affections. The function of the supra-renal capsules is still unknown, but the symptoms of a disease of this structure were well brought out in the learned lectures delivered by Dr. Greenhow last year. It is interesting to note the very large supply of nerves distributed to this organ, and the connexion of the pneumogastric with it, as explanatory of the violent vomiting which is a prominent symptom of disease of the supra-renal capsule.

The vomiting in *peritonitis* is *reflex* in character, so also in those instances in which mechanical obstruction produces similar symptoms; but on these we need not dwell.

We pass on to consider *pain* and perverted sensation connected with the stomach as expressive of pathological change in the pneumogastric nerve. These changes may be traced to central disturbance, or to local or peripheral mischief. It is well known that in some conditions of mania patients swallow the strangest substances; but, without any disturbance of the mind, we may find the appetite perverted. Sometimes an excessive craving is produced, with gnawing pain at the stomach; the appetite is not satisfied, but the pain is relieved by food. These instances occur without any alteration in the urine, and without the presence of any sugar. These patients are often spare and cachectic, nervous and irritable, and the disease is one of disordered nerve-function. So, also, is the intense neuralgic pain which sometimes comes on at the stomach quite unconnected with organic disease, but often due to disturbance of the uterine function, as we have mentioned in connexion with vomiting. The pain is often very severe, and in young and weakened subjects it may be intense. But if the attention of the patient be completely absorbed, the pain is forgotten; it comes on at irregular intervals, with or without vomiting, and not necessarily in connexion with food. There may be great demonstration of pain when the hand is placed on the abdomen; but by careful manipulation it is found that the pain is not deeply seated; there is no real tenderness; the bowels are generally confined; flatulence is often present; and menstruation is disturbed.

We have especially spoken of those cases in which there is spasmodic or other irritation of the par vagum producing pain or vomiting, but have now to turn to that condition in which there is *diminished power*, and in which we find (1) *anorexia* and (2) *dilatation of the stomach;* here, also, we have states which may be due to central disturbance, or be caused by local or by peripheral mischief.

The mere loss of appetite may be a symptom of febrile excitement, or be due to varied causes; but in the cases to which we refer, and which have been graphically described by Sir William Gull as "anorexia nervosa," the appetite fails, food is not taken, and the body wastes to an extreme degree, the countenance has a distressed appearance, the eyes are sunken, the cheeks hollow, and the whole system impoverished; the body has fed upon itself, and all superfluous fat has become absorbed. This condition may be entirely due to the state of the brain, and the disease has been correctly described as one affecting the will. Some of these instances are cases of religious melancholia.

There is, however, another class of cases in which the *anorexia comes on after gastralgia.* The patients—often young women—state that food produces severe pain, and gradually less and less of it is taken: the strength necessarily fails, and the digestion, as a consequence, becomes also more feeble; and, in proportion as the strength fails, the nervous susceptibility increases. Some of these patients become completely blanched, thin, and weak, and for months may have taken very little more than bread-and-water. Many of them rapidly recover, partly from the use of chalybeate medicines, but still more from the encouragement to persevere with food, although pain is produced; the assurance that pain will lessen as strength is regained and the stomach is restored to power assists the patient to bear the pain of digestion. As regards the diet, although we are often told that milk disagrees, it is well to use it in one or other form; it is important also to vary the dietary, and to give vegetable or fruit; and, in most cases of this kind, good draught ale or porter is much to be preferred as a stimulant, when that is necessary, to any form of ardent spirit or wine.

Another condition, due to a weakened state of the pneumogastric nerve, is *dilatation* or *distension* of the stomach. In a healthy state the stomach contracts upon its contents, and by its vermicular action facilitates the movements and churning of the contents, by which their thorough mixture with the gastric juice is promoted, their solution accomplished, and the resulting fluid propelled onwards through the pyloric valve. The pneumogastric nerve regulates these movements, and when it is paralysed these movements are more feeble, and distension readily takes place. Great distension occurs, however, from several causes: it may arise from an exhausted state of the nervous supply, both of the pneumogastric, as mentioned by Traube, and also of the vaso-motor nerve. In these instances no peristalsis of the stomach is observed, for the muscle is weakened. This form of distension may be due to long fasting, or to hysteria, or to nervous shock. The distension produces distress and breathlessness from pressure upon the diaphragm; sometimes severe pain at the stomach and through to the spine, or across the upper part of the chest. It would seem that long-continued vomiting may induce this form of nervous exhaustion, and it has been recognised in diseases of the brain and spinal cord, in typhus, in cholera, and in puerperal fever. Again, the fulness of the stomach sometimes in phthisis, and the flaccid condition in which it is found after death, may be due to this gradual exhaustion of the pneumogastric nerve.

In reference to distension due to local change in the stomach itself, we have those which are consequent on obstruction at the pylorus, and those in which sudden formation of gas and enormous distension render the muscular coats powerless to contract, and so cause paralysis. We have just referred to paralysis causing distension; but in these cases the distension causes the paralysis. It is at the pylorus that the muscular fibre, especially the circular coat, has its fullest development. When there is any obstruction at this part, particularly if it be gradual at its origin, the muscular coat becomes proportionately increased; and when the muscular contraction is unable to overcome the hindrance, then dilatation takes place, and gradually attains an enormous size. Bamberger quotes a case in which ninety pounds of fluid filled the stomach. As the muscular coat endeavours to overcome obstruction, peristaltic movement may be observed through the abdominal wall; a small quantity of food or of water taken into the stomach may suffice to produce this contraction.

But the sudden formation of gas from fermentation or other cause may lead to enormous distension. The dilatation is then so great that the very distension is the cause of the paralysis, as just mentioned. Attention was drawn to this condition of distension by Sir William Gull many years ago in a case under his care, in which the stomach filled the abdomen, and thus led to a fatal result.

This state may come on suddenly, or be very gradual. In a lady under my care the symptoms have extended over eighteen months, and sometimes great relief is afforded by removing the contents of the stomach, and thereby allowing the distended viscus to contract.

In other cases it would appear that branches of the sympathetic nerve, by their connexion with the pneumogastric and by reflex action, lead to this weakened condition of the muscular fibre of the stomach; thus we find it in peritonitis—in a remarkable case recorded by Dr. Fagge, from abscess behind the ascending colon and opening into the duodenum. In other cases empyema has been the apparent cause of the exhaustion and distension. However induced, the condition is one which indicates weakness of the pneumogastric nerve, and of the muscular coat of the stomach to which it is supplied.

The function of the *liver* is a complex one; it has to do not only with the secretion of bile, but it is intimately associated with the maintenance of the healthy blood condition, and it possesses a glycogenic function as described by Claude Bernard, and still further developed by the experiments of our colleague Dr. Pavy. It is not our intention to dwell upon these subjects; but the action of the pneumogastric upon the liver is of the greatest interest. Branches of this nerve may be traced in union with the vaso-motor to the fissure of the liver, and into its substance; and it is also closely connected with the fibrine in the ganglion upon the vena cava. The glycogenic function of the liver, as well as the secretion of bile, may be greatly affected by the condition of its nervous supply; and it is well known that puncture of the root of the nerve at the floor of the fourth ventricle produces a saccharine condition of the urine, so also division of the sympathetic nerve in the neck. This change in the urine may be referred to the altered blood-supply in the pneumogastric, affecting the lungs and the heart; but this hypothesis does not satisfactorily explain the symptoms, and the nerve appears to have a more direct action upon the secreting structure of the liver than can be explained in this way, for there are many and decided changes in the state of the circulation of the liver, connected with heart disease, which do not produce glycosuria. We find many instances of transient glycosuria from functional disease of the liver, especially where the nervous system is implicated; and the instances of almost sudden jaundice being produced by severe nervous shock are notorious, and have often been recorded. In a hospital patient of mine, a poor washerwoman, jaundice was at once produced, when she

found the clothes she was engaged to wash had taken fire whilst hanging up to dry; and, again, it is well known that acute yellow atrophy of the liver is often connected with great mental depression. In these instances, the influence of the pneumogastric nerve is inseparably associated with that of the great nerve of organic life, the vaso-motor or sympathetic.

To describe fully the pathological conditions of the pneumogastric nerve would lead us into nearly every branch of clinical medicine, and into nearly every organ of the body, if we considered its wide-spread ramifications. As succinctly as possible we have reviewed its more important connexions, and, as we noticed the several structures immediately controlled by it, we have seen that each one may be directly influenced by mischief at the cerebral centre. Those parts which are most remote are often the first to express the central disease. It may be that, the restraining power being less effective in the more remote structures, the irritability consequent on morbid change is more manifest. In ordinary hemiplegia we find the extreme muscles of the limb the last to recover their power: so in the pathological symptoms due to disease at the cerebral centre of the pneumogastric, the branches to the stomach and to the abdominal viscera are often especially disturbed. Equally do we find that disease affecting one group of nerves may manifest reflex action upon those supplied to other organs. That restraining power, which in health controls the functional activity of separate parts of the body, is best seen in its beautiful adaptation and beneficent design when we contrast the quiet harmony of health with the disorder in the whole economy when that restraint is taken away.

ABSTRACT OF

THE CROONIAN LECTURES ON THE PATHOLOGY AND RELATIONS OF ALBUMINURIA.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

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Lecture III.

The Lardaceous Kidney.—Passing now to another form of albuminuria, we come to a change which is so widely distributed among the organs and tissues, that it is not to be limited more narrowly than by the outlines of the frame; and not only in its wide incidence does this disorder differ from those which have been discussed, but also in this: while fruitful as they are in consequent disorder, it is itself always secondary, owing no origin but in pre-existent disease. I refer to the condition which, in deference to a recommendation of the Pathological Society, I shall speak of as *lardaceous*. I need not catalogue the names which, as numerous as those bestowed upon a royal infant, mark the individual responsibilities which have been associated with it. It is enough to say that I speak of the organic change which has been spoken of as waxy, in allusion to the appearance of the affected viscera; as amyloid, in view of their reaction with iodine; and as depurative, in assertion of its common origin in suppuration. The change of which the disease essentially consists is an infiltration, beginning with the arteries and afterwards penetrating widely into the tissues, of a material of which the ultimate composition is not distinguishable from fibrin or albumen, while its general characters are more nearly those which belong to the former of these constituents of the blood. It is not needful to recapitulate the multiplied analyses which prove what I suppose no one now doubts, the relations of the new material to the protein bodies. The interest lies in the points of difference between the substance and the normal constituents of the body. Perhaps the most important of these is to be found in its relation to the alkalies. The presence of the lardaceous material in any tissue can be at once detected by the reaction of iodine. If, now, the weakest solution of potash or soda, or a stronger one of ammonia, be brought into contact with the infiltrated structure, its power of reacting with iodine is at once and finally abolished, and that without any destruction of the normal tissue, or even material injury to its microscopic structure. This appears to depend upon the extraordinary solubility of the morbid deposit in alkalies, a property which Dr. Marcet made use of in order to obtain it for analysis, when, at the instance of the Pathological Society, he brought his practised skill to bear upon some observations which I had recently ventured to make public. It will be seen, however, that these agents do not separate it absolutely from the healthy tissues. If part of a lardaceous organ (for example, of the liver) be exposed to the action of water until all the albumen is washed out, and it be then treated with a dilute solution of caustic potash, an enormous amount of material is at once extracted, which, on the action of an acid, will appear as a white flocculent precipitate, soluble in alkalies, but not by their carbonates, and precipitable by acids. The tissue which has yielded it no longer presents the "amyloid" reaction, and it is an obvious inference that the matter which has caused this has been dissolved out. But, as the same process extracts a less abundant but similar material from the tissue of health, the lardaceous matter is not to be isolated by this means; but it is so much more soluble than the normal structures, that it is probable that the process can be so managed as to extract the one with but little of the other. In the matter thus extracted by means of potash, Dr. Marcet found 13·7 per cent. of nitrogen as the average of these estimations; that of albumen being 15·7.

I examined the ash in two series of instances—the one representing the condition of health, the other including various stages of lardaceous infiltration. The details show loss of alkaline salts, more particularly of potash, under the influence of the disease. In health the mineral constituents showed no great variation, the potash particularly ranging from ·191 to ·230 in 100 parts, and giving an average of ·209. With the disease, the total alkaline salts and the potash singly displayed a greater variety—in the slighter examples of the change little or not at all lessened; in the more extreme instances extraordinarily reduced. Taking an average, the total alkaline salts in health amounted to exactly 1 per cent.; in disease to ·739 per cent. The potash in health to ·209; in disease to ·169. The loss of alkali is considerable, having regard to the fact that, in most instances, but a small proportion of the tissue was occupied by the deposit. It is worth noting that the earthy salts were increased. Omitting, for the present, to refer to some parallel observations which had been made upon another organ, but keeping to the liver, I am fortunately able to give the results of some analyses which were made by Dr. Dupré, at the request of the Pathological Society. Dr. Dupré ascertained the mineral constituents in 200 grammes of liver-tissue in three instances of health, and in three of strongly marked lardaceous infiltration.

The relative deficiency of potash is more marked in these than in most of the instances previously referred to; and it is to be noted that with them, as in some estimations which had already been made with regard to the spleen, which have yet to be mentioned, the diminution belongs only, as it evidently related most importantly, to this alkali. It is to be mentioned that, in the method employed by Dr. Dupré, the slight loss of chloride of sodium, which is inseparable from incineration, was avoided. Giving Dr. Dupré's averages as applying to 100 parts, the potash in the healthy liver was ·283 per cent.; in the lardaceous liver ·151 per cent.—a diminution under disease of more than half. The phosphoric acid at the same time is lessened, but not to an equivalent extent, from a percentage of ·329 to one of ·198. The chloride of sodium is increased, as it not uncommonly is in morbid formations.

I will now point to some observations of which the spleen was the subject.

As with the liver, the variation with disease is greater than with health. The potash is constantly diminished, in one instance to less than half; on an average, from a percentage of ·311 to one of ·196. The soda varies much; it has apparently suffered no loss. The earthy salts were generally increased. These estimations, which nearly correspond with those made upon the liver, supply an additional fact in the contrast between the lardaceous and the rickety enlargements, of both of which the spleen is the chosen seat. The rickety condition (which is profoundly different from the lardaceous, though the two have a superficial resemblance), is distinguished from it, among other differences, by its deficiency not of potash but of lime.

I have already had to allude to the iodine reaction, by which the affected tissues are distinguished; the power of exhibiting which is, in fact, the conspicuous property upon which rests the definition of the disease. The reaction simply amounts to this: whereas a solution of iodine imparts to the healthy tissues but a feeble and evanescent yellowish colour, it gives

to the affected parts a deep and lasting stain, which may be as deep in colour as iodine itself. The difference is exactly that which would result from the greater absorption and retention of the test substance by the diseased than by the healthy tissue. Some observers, and earliest among them a pathologist who in his generation holds no second place (I need scarcely say that I allude to the great professor of Berlin), have described a blue colour as obtained by treating the tissue with sulphuric acid in addition to iodine. Others, however—and among them I must count myself,—have failed to recognise any colour more nearly approaching blue than is iodine itself. If the solution used contain iodide of potassium, the addition of sulphuric acid will necessarily cause the deposition of iodine from the salt. Shades of colour, however, may be variously regarded; and, in view of the colour of iodine itself, differences between black and blue may be compromised. The interest which once attached to the supposed blue reaction has departed with the fancy that the morbid deposit was allied in its composition to starch. Perhaps a more obvious pathological bearing is to be discovered in the remarkable manner in which some of the normal constituents of the body may be made to yield the reaction.

A piece of an organ which has been soaked in a solution of hydrochloric acid will give a deeper tint with iodine than another which has not. If albumen be precipitated by an acid, it will be found to take and retain the colour of iodine, as it will not do except when acidified. But the most striking counterfeit of the "amyloid" reaction can be made by operating upon fibrin. If this substance, as obtained from the cavities of the heart, be dissolved, as it can be in hydrochloric acid diluted with six thousand times its bulk of water, it will yield on evaporation a substance like gelatine in appearance, which gives the reaction typically, and in a manner which forms a remarkable contrast to the effect of iodine upon unsophisticated fibrin. The action of an alkali will render it again insusceptible of the lardaceous tint, and restore its original status in this respect. The affinity of iodine for this acid modification of fibrine is further shown by its forming a precipitate with it, which it is needless to say it will not do with albumen.

Whether or not this substance deserves to be called "artificial amyloid matter" (the term which I once gave it), there is at least a close analogy between it and what is deposited in the organs as the result of disease—an analogy which has been further elaborated by Dr. Marcet in the report to which I have referred.

These observations point unmistakably to the conclusion that certain constituents of the blood, which are normally in alkaline combination, undergo when in acid solution a modification which renders them liable to the amyloid reaction, or, in other words, gives them an affinity for iodine which normally they are without.

This view of the reaction is consistent with what has been already shown regarding the paucity of potash in lardaceous organs; and these considerations, taken together with the solubility of the morbid deposit in alkalies, which would seem to prohibit its deposition from blood of normal alkalinity, cannot but suggest that a deficiency of the alkaline solvent, and a consequent separation from the blood of something for the solution of which the means no longer suffice, is a rude ideal of the morbid process.

The constant presence of potash, particularly as phosphate, in the healthy tissues, and its apparently essential bearing upon nutrition, would prepare us to expect marked pathological results from its deficiency. Putting off for the present any reference to the organic and constitutional changes produced by the infiltration, I will say a word upon its causes and the possible manner of their operation.

Looking into cases of lardaceous disease with the purpose of inquiring into its source, I was struck with the occurrence of chronic suppuration as common to a large majority; and it was apparent, at the same time, that the accepted view of the origin of the disease in cachexia needed, to say the least, some qualification. The disorder could not be traced to tubercle or cancer, unless these formations were attended with suppuration or discharge; and many instances presented themselves in which suppuration arising in local accident, unattended with constitutional disease, was succeeded by the organic change in question. These facts were presented numerically in a series of sixty-six cases. Protracted suppuration, ascertained in fifty-one, necessarily presumed in five, was present in five-sixths of the number. In thirty, there was no evidence of either syphilis, tubercle, or cancer.

Starting from the year 1867, when these results were published, I have collated the experience of St. George's Hospital since that date, as recorded by a succession of competent pathologists.

Of eighty-three cases, sixty were connected with ascertained four with presumed, suppuration; this process thus showing in three-fourths of the number. Cancer appears in two, tubercle in thirty-seven, syphilis in eighteen. In thirty-seven cases, neither cancer, tubercle, nor syphilis could be detected. Looking more narrowly at each of these precursors of the lardaceous state, tubercle and cancer may be at once dismissed as having no further association with it than as frequent causes of suppuration. If the mere deposition of cancer or tubercle, apart from its disintegration, be ever productive of the lardaceous change, the sequence has escaped my observation; and similarly with regard to bone disease. Putting aside syphilitic affections, suppuration appears to be a necessary link between necrosis or caries, and the resultant visceral mischief. With regard to syphilis, the case stands differently.

However aided by the suppurative effects of its various complications, there can be no doubt that constitutional syphilis alone is an adequate cause of lardaceous deposition. In the table, syphilis without excessive suppuration was the apparent cause in eleven instances; evidence or record of it complicated the antecedents of seven others; and, from the latency of the disease and the reticence of patients, it may be suspected to have deserved in other instances credit which it has not received. When connected with syphilis of old date, and attended with much emaciation, the visceral change is sometimes extreme, though not more so than when dependent upon ancient suppuration, be its source what it may. As a result of comparatively recent suppuration, we have many opportunities of noting the organic change in its earliest phases. Careful testing, especially of the kidney, will, indeed, seldom fail to elicit traces of it, if the suppurative process, be its cause what it may, have gone on abundantly for two months. It is scarcely necessary to insist on the fact that suppuration, unconnected with any constitutional source, but of local origin in stone, ovarian or pelvic inflammation, accident, surgery, gangrene, or bed-sores, may be thus succeeded. The disorder has been attributed, but on insufficient evidence, to other conditions, among which may be mentioned rheumatism and alcoholism; and it would probably be no difficult matter to find subjects of the disease who have been rheumatic or drunken. But, except where rheumatism is a paraphrase for syphilis, I have not been able to trace any connexion between the rheumatic and the lardaceous state; and, with regard to intemperance, lardaceous disease is certainly not among its direct consequences, though it may result from pulmonary phthisis which drink has induced. It is none the less likely that the apparently simple alteration of nutrition which constitutes the disease may be brought about in many ways, of which suppuration and syphilis are only the most frequent. I think it is to be noted that residence within the tropics is conducive to it.

Considering the disease as due to suppuration in the abstract, the *modus operandi* comes into question. Suppuration produces results of two classes—those due to the absorption of the discharge, and those due to its loss. With the infective results of suppuration, lardaceous disease has no alliance; there is with it no febrile disturbance, nor any of the results which we are used to associate with purulent absorption. We must refer its origin to exhaustion, and have but to determine wherein the drain is thus injurious. The essential loss can hardly be of the albumen which pus removes; the abstraction with the urine of a larger quantity than is ever lost in pus rarely, if ever, causes the result. And, looking at the other organic constituents of the discharge, we may dismiss all, excepting the corpuscles, as with any likelihood impoverishing the organism by their removal. As to the corpuscles of the pus—or, in other words, the white corpuscles of the blood—we know little of their action in nutrition, though we cannot doubt that they are of vital importance. Perhaps we do not fully understand the relation of the white and red corpuscles to each other; if the red are but a later phase of the white, a loss of the white may be ultimately evinced by a deficiency of red. As far as I have seen, the red corpuscles appear to be more reduced than the white by the suppurative process. But, without distinction between white and red, it is as certain that

the corpuscular element of blood must be diminished by suppuration, as that that process essentially consists in its escape. It is not impossible that the loss of corpuscles may be as necessary to the lardaceous result of suppuration as their presence is to the discharge. The potash of the blood is chiefly contained in its corpuscles; and that it is largely associated with the white is evident from the composition of pus. It is possible, therefore, that the lost leucocytes may be important agents in producing a change of nutrition, which is characterised by a want of this essential alkali.

In its mineral ingredients, pus differs from blood in the larger proportions of the salts of potash in the morbid fluid. A discharge of pus, whatever else it is, is virtually a discharge of potash; a fact which we cannot but view in conjunction with the peculiar deficiency of this alkali in the lardaceous deposit. With regard to the salts of soda and of lime, which pus also contains, we can, as far as regards this disease, attach no consequence to their loss, since, far from being necessarily wanting in the lardaceous matter, they may possibly superabound in it. Loss of potash, therefore, whether as effective alone or as associated with a loss of the corpuscles in which it is contained, is apparently the link between suppuration and lardaceous disease; and partial impoverishment of the blood, and deposition of what remains in it in relative superabundance, presents itself as a rough outline of the process by which the disease is engendered. But, besides the exhaustion of discharge, there must be other ways in which the same result may be produced. A deficiency of income may be similar in its effects to an excess of expenditure, and defective assimilation akin in its results to effective waste. The attenuated and starved frames of the subjects of syphilis, and their obvious inability to transmit nutriment from their stomachs to their tissues, may prepare us to attribute to this disease any impairment of nutrition, notwithstanding that, as in this case, the precise method is not within our discernment. It may be that, under this morbid influence, the white corpuscles are insufficiently developed, and their accompanying potash insufficiently introduced.

Passing now to the consequences of the disorder, the nature and origin of which have been considered, and viewing them more particularly in reference to the subject of renal disease, it will be seen that it affects the kidney not only in its own special manner, invading its tissues with a material foreign to their nature, or different from them in character, but in modes which bring the lardaceous into community with other modes of disturbance. The effusion appears to act as an irritant, first to the intertubal tissues, and then to the tubes. The special change is early followed by a growth of nucleated tissue, not at first uniformly throughout the organ, but along the vascular lines, after the manner of the interrupted fibrosis of chronic granulation. The processes advance and spread until at last the whole organ may be comprised in a nuclear hypertrophy of the interstitial tissue. It is clear that either the lardaceous deposit is itself converted into fibre, or else—which would seem more likely—that hypertrophy of the existing tissue is instigated by the irritative presence of the new material. It is to be observed that the new fibroid tissue developed in these cases differs in no respect from that which belongs to other forms of renal disease: it gives no lardaceous reaction; it contracts, as is its wont, and thus gives rise, as time goes on, to superficial depressions, an undulating or somewhat of a granular surface, and at last even to extreme and general shrinking. A less constant granular change attendant upon lardaceous infiltration is general tubal catarrh. This is not an early complication; it is marked by scanty, highly albuminous, and sometimes glutinous urine, general dropsy, and possibly uræmic symptoms. And the succession upon the lardaceous infiltration of inflammatory disturbance, whether interstitial or tubal, can be recognised as modifying in other ways the results of the disease. I think this is to be seen in the mixed arterial state which sometimes accompanies its later stages. Early or unmixed lardaceous infiltration appears to have little effect in impairing the secreting powers of the gland, little tendency to cause uræmia, and no appreciable result in vascular tension or cardiac hypertrophy. The absence of ventricular hypertrophy, notwithstanding that the arteries are specifically thickened, is characteristic of lardaceous disease, and serves to strengthen the belief that, in the other forms of albuminuria, where the walls of the heart and the arteries are increased together, the cardiac is not consequent upon the arterial change; but the two are common results of an obstruction in front of both. With lardaceous disease, we can but infer that the obstruction, be it what it may, does not exist, or that its effects are obviated by other circumstances. The general absence of hypertrophy of the heart in this condition has been remarked by all recent writers upon the subject. My tables, published in 1867, gave a percentage of 2 per cent.; Dr. Grainger Stewart's, in 1868, of 4 per cent. Dr. Galabin, writing in 1873, found hypertrophy in three of fifteen instances; and Dr. Sibson, in four of fifteen instances, in one of which, however, the hypertrophy might have been due to valvular disease. These estimations, of which the latter—made since the circulating system with albuminuria has been the object of much attention—take notice of the lesser degrees of enlargement, which in the earlier passed without notice, agree in representing hypertrophy of the ventricle as an exceptional occurrence with disease of this character. I may add that, in the series of eighty-three cases of lardaceous disease previously referred to—not especially renal, however, though the kidneys seldom escaped,—hypertrophy of the heart was noted in six instances, while in three this organ was smaller than natural.

With regard to the arteries, these channels are the early and favourite seats of the characteristic infiltration. The smaller of them, together with certain groups of capillaries, most often those of the Malpighian body, are permeated throughout their parietes with the translucent iodine-loving material. The muscular coat is variously altered, its striæ sometimes curiously exaggerated; while the outer coat is unevenly swollen, as if by a deposit somewhat capriciously introduced. The change thus produced has its points of resemblance, especially in the state of the outer coat, with that of other forms of renal disease; but a difference is to be found in the absence with lardaceous disease of any real hypertrophy of the muscular coat. The essential process is a saturation of the vessel-wall with the specific material. The usual non-hypertrophy of the ventricle with this condition, calculated, as we might suppose, to produce it, may find its explanation in two ways. The urinary secretion, until quite at last, suffers less diminution of its essential solids than in any other form of renal disease; so that the blood is less affected by their retention, and the results of uræmia are correspondingly smaller. Secondly, as Dr. Sibson has suggested, the wasting discharge present in most of these cases—either as the suppurative lesion to which the disease was due, or the diarrhœa and vomiting which are so commonly among its results—tends to relieve vascular tension and prohibit its effects. The accompaniment of lardaceous disease in a minority of instances with cardiac hypertrophy—now and then with retinal hæmorrhage, and more often with convulsion, or some other manifestation of cerebral uræmia,—may be viewed in conjunction with what has already been stated of the complication of the essential renal state with interstitial or tubal nephritis.

Time will not allow me to touch upon the other organic lesions connected with the lardaceous state. The more prominent, like the diarrhœa and vomiting, are evidences that organs other than the kidney are involved in the disease. Dropsy in every shape is common; pneumonia is frequent; while bronchitis, unlike what occurs in the other types of renal disease, is rare. Endocarditis, or the deposition of ragged fibrinous matter upon the valves of the heart, is comparatively frequent; the vegetations, and also the fibrinous blocks derived from their translation, have been known to give the lardaceous reaction; their deposition may be not remotely allied with that of the presumably similar material which infiltrates the organs. In the eighty-three fatal cases of the lardaceous disease already referred to, recent vegetations were found on the valves in five cases, valvular thickening of old date in twenty-one; a proportion of valvular mischief which belongs to no other renal affection.

Hæmorrhages, nasal, intestinal, and purpuric, are of occasional occurrence.

Treatment of Albuminuria.—I have hitherto said nothing as to the treatment of the disorder, the nature and relations of which have occupied our attention. It would not be suitable that I should occupy the College with the details of recognised and familiar practice. But one or two points call for mention; and I have chosen to place them together, distinguishing, when needful, what applies to one state of kidney and not to another, rather than to incur the danger of repetition by annexing to each separately any reference to the measures with which it should be met.

The disorders of the vital gland in question afford no exception to the rule that medicine must not be limited by the

bounds of the materia medica. The circumstances of ordinary life, food, drink, and temperature are to be considered as of the first importance; while the contents of the Pharmacopœia occupy the position of auxiliaries, whose services sometimes decide the battle, and at others are dispensed with without loss. Therapeutics, to be successful, must have a physiological basis. To give rest, as far as may be, to an inflamed structure, is an old and sound maxim; and it is not less obvious, in regard to the system at large, that if a great channel of exit be obstructed, the materials which therefore tend to accumulate should be sparingly introduced. The diet with albuminuria, save with that of lardaceous origin, in which the secreting power is until late little interfered with, while an exhausting discharge may have to be obviated, should be below the custom of health in its nitrogenous components. It may abound in milk and farinaceous matter, while fish may often take the place of flesh. The increase of albumen in the urine, upon a too early resort to a meat diet, is a common experience. With regard to liquids, it cannot be too strongly insisted upon that the functional strain upon the kidney is not to be measured by the quantity of water which filters through it, but by the quantity of refuse, mainly nitrogenous, which it has to convert and eliminate. Water, which probably transudes almost as through dead membranes, probably makes little demand upon the real secretive function. The worst kidneys, indeed those most hopelessly incapable of their special work, will often discharge most of it; and it is easy to see that its passage, not to be regarded as the result of glandular effort, is salutary, both in the dilution of scanty and irritating urine, and also in washing out the solid products which, under the inflammatory process, collect mischievously in the tubes. A further use is to be discerned in this law. The solids of the urine vary with its water. With given kidneys, the solid excreta wax and wane with the bulk of the urine. Any means, therefore—mere aqueous filtration as safely as any,—which increase this will also magnify the components of the secretions which are essential to life. With tubal nephritis, therefore, and scanty urine, an aqueous dietary, even with the addition of distilled water, or the element in some slightly sophisticated shape, will prove in every sense beneficial. In many, perhaps in most, cases of nephritis of tubal origin these remedies of patriarchal simplicity, "spare diet and spring water clear," are all that are needed to guide the disorder to its natural cure. To this surest and safest of diuretics others must often be added, both to lessen dropsy and to avert the dangers of uræmia. The old rule is that, in recent cases, digitalis should be used; it seldom fails to increase the flow of urine, but I am not sure that it does not sometimes do so with some exasperation of the inflammatory action. The bitartrate and acetate of potash, which have a purgative as well as a diuretic action, may probably be safely resorted to; and in chronic cases as much as may be done harmlessly by diuretics may be accomplished by means of scoparium, nitre, and juniper. Cantharides and the more irritating agents of this class are generally distinctly injurious. Perhaps, next to a regulation of the diet, it is most important to secure a daily and somewhat loose action of the bowels. Purgatives lessen the vascular tension which, in both acute and chronic cases, is a measure of their danger; and while it is not advisable too largely to divert the urinary fluids by severe catharsis, increased hardness of the pulse, and other more obvious aggravations of the general state, seldom fail to ensue upon constipation. When cerebral uræmia is threatening, hard purging by elaterium or otherwise is essential. As a habitual laxative, a drug, less used than it deserves to be—sulphate of potash,—given two or three times a day in doses of from ten to twenty grains, is sometimes invaluable. It may be aided, if necessary, by Epsom salts or cream of tartar. This, or these, in their laxative action, clear the obscured or blood-spotted retina, and remove the mists from the field of vision, slowly and not always completely, but in a manner which presents a remarkable contrast to the inutility of iron in this respect, and affords a testimony as to the use of alvine evacuations in lessening the arterial tension of which such lesions are the index. The chronic headache of the granular kidney is often similarly and equally relieved. While by such means the system is enabled to dispense, as far as may be, with renal functions, it must be asked whether, particularly in circumstances of recent inflammation, anything can be done directly towards the cure of the injured organs. Discarding counter-irritation as a method of punishing the skin for the errors of organs for which it is not responsible, it must be admitted that, beyond insuring sufficient irrigation of the tubes, our chief endeavour is to provide the gland with leisure to cure itself. But it is worth mention, in relation to a rapidly fatal form of nephritis, in which the tubes become widely sealed up as if with molten glass by a pseudo-croupous exudation of fibrin, the urine being almost suppressed, while the little that is passed is loaded, not only microscopically, but as a bulky precipitate, with large fibrinous cylinders, that all plugging of the tubes from this cause can be prevented by the administration of alkalies. Alkaline urine is a solvent for fibrin, and with this in process of secretion the exudation retains its fluidity, and whatever harm it is capable of doing by solidifying in the tubes is obviated. The experiment is easy of trial. However numerous fibrinous casts may be—and I need not say that this term comprises all that are usually passed,—they will, upon the alkalescence of the urine, quickly cease to appear, to return again with its acidity. There are cases in which such relief to the tubes must avert a pressing danger; but it is disappointing to recognise, as I fear we must, that the process of renal inflammation is seldom so simple as to admit of cure by this means. I may be permitted to say a word touching the use of iron. The impoverishing effect of albuminuria, possibly from the destructive action of the retained refuse upon the blood corpuscles, produces a pallor which cannot but suggest this remedy; and, in recovery from attacks of renal inflammation, none is more helpful. But a medicine which is effective for good is generally, and in somewhat the same measure, effective for harm; and iron in chronic albuminuria needs to be administered with more discrimination than it, perhaps, always receives. With high vascular tension, such as belongs to the granular kidney, with a hard pulse for its sign, an enlarged heart, retinal mischief, and possibly persistent headache and nausea as its concomitants, iron, however seemingly indicated by the look of the patient, is generally injurious, unless most guardfully anticipated and counterpoised by aperients. The perchloride, among other salts, is often of special service in dropsy; but where the vessels are not thus relieved, and the symptoms which threaten are uræmic, this drug is generally better withheld. In any condition it seldom fails to do harm if allowed to constipate—a result which may be obviated by mixing the ferruginous salt with sulphate or bitartrate of potash.

In the treatment of granulative or lingering nephritis, climate should take no secondary place. Every organ of the body, according to the teaching of ancient medicine, was subject to a separate planetary or celestial rule—a fancy which has, at least, this much of truth, that functional activity, and with it the liability to disease, are apportioned among the eliminating organs largely by external temperature or solar influence. In the tropics the stress falls upon the skin and the liver; in the temperate zone, upon the lungs and the kidneys. The comparative exemption of the kidneys from disease, save of the lardaceous kind, appears, as far as our evidence goes (and the experience of our ubiquitous race makes it tolerably extensive), to be common to the warmer latitudes. And the inference that, under the same atmospheric influence, chronic albuminuria, when not of lardaceous origin, would find, perhaps not organic cure, but at least systemic relief—has been amply justified by recent experience.

Not to dwell upon the treatment of cerebral uræmia, in which the uses of drastic purging and forced diaphoresis are sufficiently well known as lessening the uræmic state, while means of controlling nervous irritability, the bromides, chloral, and chloroform, are helpful as withholding its convulsive effects, I will say a word upon the less trite topics—the prevention and possible cure of the lardaceous state. This condition is one in which medicinal treatment would seem to be suggested by the nature of the morbid change, and encouraged by a tendency to natural recovery which the disease, even in an advanced stage, will sometimes exhibit. But with the curative power inherent to the human frame—not in this case, however, so often successful as might be wished—comes the ever-present vice of therapeutics, the attributing to art what belongs to nature: a possibility of error which will probably never cease to increase the confidence of the confident practitioner, and the distrust of him who, in one sense more foolish, is wise enough to doubt.

When the disease is consequent upon syphilis, iodide of potassium is of marked effect in lessening the organic enlargement and ameliorating its other effects. Sometimes, when a long-continued suppuration has come to an end, or greatly diminished, a retrogression in the resultant disease can be

slowly followed, though no antidotal drugs have found place, if only the diet of the patient be liberal, and his general surroundings favourable to health. The special remedy which pathology suggests—one which of late years I have used often and largely—is potash. I have found, in the first place, that under lasting suppuration potash salts can be given, not only without the depressing effects which sometimes attend their use as medicine, but to the improvement of the general health, and with the absence of lardaceous symptoms, which, in the circumstances of the case, would be at least a probable contingency.

Further than this, I have given the salts of potash alone, or with quinine and iron, where visceral swelling, diarrhœa, and albuminuria have betokened the disorder in an advanced shape. Under such treatment, the liver and spleen have become measurably smaller, the urine less albuminous, the patient has gained flesh and weight, and all the symptoms have ameliorated. But chemicals put into the stomach are not brought to bear upon the tissues as if the treatment of disease were conducted in a test-tube, and the cure is at best a slow one. It is further obscured, or possibly simulated, by a shrinking which the swollen organs sometimes naturally undertake.

The most striking instance of recovery under treatment which has come under my notice was one in which the disease was associated with syphilis, and the treatment correspondingly modified. Great enlargement of the spleen and liver, albuminuria, diarrhœa, and emaciation, gave evidence of the disorder in a degree of seemingly hopeless severity. Iodide of potassium was given with potash and its vegetable salts. The patient was apparently cured; and, on his death from an accidental cause, three years afterwards, the viscera were found to have returned to their natural size, and only such traces of the lardaceous change were discovered as to warrant the belief that he had once had more of it.

On the whole, reviewing my experience in this matter, I must admit that the administration of potash by itself has proved—I will not say useless—but disappointing; less effective than pathological deduction would lead us to hope.

As to the use of remedies of the restorative and tonic class, iron, quinine, and cod-liver oil, there is unequivocal evidence. If the deficiency of potash be connected, as I have ventured to surmise, with loss or insufficient development of leucocytes, the disorder may perhaps be more appropriately met by means which promote the formation of those essential instruments of nutrition rather than by the mere introduction of material which, in their deficiency, perhaps cannot be turned to vital purpose.

The measures I have commonly—and numerous experience justifies me in saying beneficially—used, have been liberal diet, with beef-tea, Liebig's extract, and vegetables which abound in potash-salts, together with liquor potassæ, phosphate of potash, iron, quinine, and sometimes cod-liver oil. The alkaline remedies have been urged with the most obvious advantage during the persistence of suppuration.

Nothing now remains for me to do but to thank this accomplished and critical audience for the forbearance with which they have listened to many tedious and possibly familiar details. I trust I have shown how the varieties of renal disease are not only complicated, but often inextricable; but how, according to the bias which prevails in each instance, different classes of secondary results follow: that among these the cardio-vascular change, however else it may arise, is a result of vascular tension, of uræmia, which, though more common with some forms of disease than others, may ensue upon any. Finally, in touching upon treatment, I have sought to show in what instances it is to be guided by a consideration of the special organic state; and where, more frequently, by the results which it has produced upon the patient.

The French Association for the Advancement of Science.—The fifth meeting of this body is to be held at Clermont-Ferrand, on August 18 and following days. Those who contemplate a visit to that picturesque locality, the Auvergne, may obtain every information respecting the Congress from M. Gariel, Sécrétaire du Conseil, 76, Rue de Rennes, Paris; or M. Alluart, Director of the Meteorological Observatory of the Puy-de-Dôme, Secretary of the Local Committee at Clermont-Ferrand.

ORIGINAL COMMUNICATIONS.

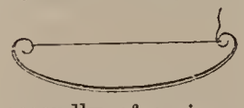
THE TIMBROMETER.

THE DETERMINATION OF THE LIMITS OF INTERNAL ORGANS BY AUSCULTATION OF THE VIBRATION-NOTE.

By ERNEST HOUSTON FORJETT,
Resident Physician to the Fever House, Royal Infirmary, Edinburgh.

Most practitioners must have experienced the difficulty of mapping out organs accurately by percussion in cases accompanied by pain, and where the necessary examination might imperil the patient.

The idea occurred to me some time ago of substituting for the rougher method of percussion the auscultation of musical vibration. For this purpose two instruments (one of which is represented in the accompanying figure) have been designed by me. They consist—first, of an ordinary differential stethoscope with one oblong chest-piece



—to fit into the intercostal spaces,—the whole made sufficiently stiff to be held *in situ* by the mere pressure of the head; secondly, of a piece of flexible steel, bent as a bow, and held tense by catgut. The mode of working is as follows:—Place the stethoscope over the organ to be examined—say the liver; then take the bow in the left hand, and, placing it with either of its extremities firmly upon the skin over or against the organ, begin to twang the catgut with the right hand, moving the instrument towards the organ under examination. The *rationale* is, that solids give a clear musical note, and cavities and organs containing air give a dull note. Hence, the passage of the instrument from the one organ to the other will be indicated by a distinct change in the character of the note. The outline of the various organs can by this method be accurately defined and determined without the patient experiencing the slightest inconvenience or pain.

The benefits to be derived from this instrument being introduced into practice are the following:—

1. Indurations, abscesses, and cavities can be detected if present in any one of the organs, according as the note is changed in passing over that given organ.

2. An organ so difficult to define as the kidney can with facility and exactness be mapped out, both in health and disease, even to the direction and form of its pelvis.

3. Considerable difficulty is sometimes experienced in distinguishing by the ordinary mode of percussion between the cardiac and hepatic dulness; but by the process we are describing the difference can be detected with absolute accuracy. The heart, spleen, liver, kidney, and lungs give their own peculiar musical vibrations; the dissimilarity between each can by practice be easily discerned and distinguished. Hence, when the respective notes are once committed to memory, the limits of each organ can be defined, even in cases of extreme displacement and overlapping.

4. The heart can be mapped out according to its four compartments. The cardiac musical vibration changes in degree as we pass from the right auricle to the right ventricle, and from the left auricle to the left ventricle, and also between the right and left sides.

5. But it is in cases where it is expedient not only to define the limits, but also the existence of an aneurism, that this instrument is most valuable.

The instrument can be had of Mr. A. Young, surgical instrument-maker, 58, North-bridge, Edinburgh.

NOTE ON THE TREATMENT OF GLEET.

By JOHN CHIENE, F.R.C.S., F.R.S.E.,
Lecturer on Surgery, Assistant-Surgeon, Edinburgh Royal Infirmary.

Inflammation of the male urethra, the result of promiscuous sexual intercourse, is often a very intractable disease. This is specially true of the chronic stage of the affection. In no case can the duration of the disease be foretold; and frequently, even with the greatest care on the part of both patient and surgeon, the watery discharge may last for months, defying all forms of treatment.

Many reasons have been assigned for the tedious nature of the complaint: none are, to my mind, altogether satisfactory.

A consideration of the natural history of balanitis, and of many cases of soft chancres with phymosis, in which apposition of the inflamed glans and inflamed prepuce is the sole cause of the persistent nature of the inflammation, must, I think, lead to the conclusion that the same cause may be at work in gleet. If such is the case, then separation of the surfaces of the urethra should, in cases due to this cause, be followed by a speedy cure.

I first thought of a flexible indiarubber bougie, to be worn at night; but as this method hardly appeared suitable, I mentioned my difficulty to Dr. Cadell, of this city, who suggested a trial of clay-earth, or kaolin, and directed my attention to a paper by Dr. F. W. Godon, in the Ameriean *Journal of Syphilography* for October, 1874. In this paper the good effects are attributed to the soothing and antiseptic properties of the clay, which is injected every four hours as a thick paste, and retained for a minute. If retained for some hours, then it would act mechanically, keeping the inflamed surfaces apart —acting, in fact, as a picce of lint in the cure of balanitis. It therefore seemed suitable for my purpose; and since the beginning of 1875 I have given it a trial in every case of gleet, after having satisfied myself that the discharge was not due to stricture. At first I used it only in intractable cases; latterly I have used it in every case of gonorrhœa after the acute stage has subsided. The result has been satisfactory in the majority of cases. In some the rapidity of the cure has been very marked; in only one case has any evil consequence followed, the patient using an impure preparation, which hardened in the urethra, and was removed with difficulty. I have not used it in the acute stage of the disease, and have never injected more than sufficient to fill the urethra anterior to the triangular ligament. In those cases in which no good result has followed its use, I believe the source of the discharge was in the posterior part of the urethra.

It may, even in such cases, if sufficient quantity is injected to fill the whole urethra, do good, but I have always feared to use it in case some of the injection passed back into the bladder, and, being retained, might act as a nucleus for calculus. The fear may be groundless, but it has hitherto prevented me from adopting it. I beg, however, strongly to recommend it in gleet caused by inflammation of the anterior part of the urethra.

The kaolin is mixed with water, or with oil and water, so as to make a very thick paste, which is placed in the glass syringe, and injected very slowly into the urethra night and morning, after micturition; a piece of lint is then placed over the meatus, and the prepuce drawn forwards to keep the lint in position. The kaolin at the meatus soon dries, and the plug of kaolin remains in the urethra. It is retained with difficulty during the day, but at night there is no difficulty if the case is chronic, and the injection be performed very gradually.

The good effects are undoubted: the true explanation of its action may be questioned. It may simply act as an antiseptic, as stated by Dr. Godon; in my opinion, however, there are some grounds for supposing that it acts mechanically. I have used it with great advantage in balanitis and in soft chancres with phymosis. Until something better is found, the use of clay-earth in keeping chronically inflamed surfaces separate is worthy of further trial.

Edinburgh.

THE LATE MR. DE MORGAN.—The many pupils and friends of this distinguished and much-lamented member of our profession will be glad to learn that Mr. G. B. Black, of Regent-street, has just published an excellent and most life-like lithograph of the deceased gentleman, which many may like to preserve as a *souvenir* of their friend and teacher.

THE LEECH AS A WEATHER PROPHET.—An "Old Practitioner" writes:—"I have always on my window-sill a leech in a bottle three parts filled with about a pound of water, which is changed every week in summer and every fortnight in winter. The mouth of the bottle is covered with a piece of coarse cloth. If the leech remains at the bottom of the bottle, motionless and curled on itself like a snail, there will be fine, durable, clear weather; but if it rises into the neck there will be snow or rain as long as it remains there. When it is going to be very windy the leech swims very rapidly from one side to the other, only becoming quiet on the appearance of the wind. Some days before a violent storm with rain and tempest it almost remains out of the water, and exhibits movements resembling those of a convulsive paroxysm."—*Rév. de Thérapeutique.*

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Medical Times and Gazette.

SATURDAY, JUNE 24, 1876.

THE GENERAL MEDICAL COUNCIL.

THE late session of the Medical Council was one of unusual length, and consequently of unusual expense; while the state of the finanees of the Council, as depicted in the Report of the Finance Committee, pointed to the necessity for a curtailment of expenditure. The income of the Council for the year 1875 was rather less than the income for the year 1874; while the expenses had been so much greater that expenditure had exceeded income by no less than £820. Part of this excess is accounted for by the increased amount of fees paid to visitors of examinations; the Council having paid under that head in 1875 the sum of £718, while in 1874 the cost of the visitations of examinations was only £456. The extra cost in this direction cannot be found fault with; and so long as frequent visitation is clearly needed, any curtailment of expenditure in this direction would be very false and short-sighted economy. But the cost of "general printing" in 1875 exceeded that of the previous year by £405; that is to say, the increased expenditure under that head came to one-half of the whole excess of expenditure. And here we cannot but think that the Council are open to censure. By the exercise of a little more thoughtfulness and care in ordering communications and unadopted reports to be placed on the programmes and minutes, the printing expenses of the Council might surely be considerably lessened without any disadvantage or serious inconvenience.

With regard to the increased length of the session this year, no fault can reasonably be found with the Council. All the time gained by the prolongation of the session, and a large amount of time besides, was devoted to the consideration and discussion, in committee and in general committee of the Council, of Parliamentary Bills; and while this necessitated, unhappily, the postponement of other urgent and very important business, it could not be avoided. Her Majesty's Government had requested the opinion of the Council on some of the Bills before Parliament; and though Lord Carnarvon's Bill was not among those upon which an opinion had been

asked by Government, it is a Bill of such paramount importance, and, as framed, of such power for mischievous and grievous interference with the progress of medical science, that the Council would have been chargeable with a grave dereliction of duty had they passed it by without the most serious consideration, and protest. Considering how great an expense, in money and time, to the profession each day of session of the Council is, the time absorbed by Parliamentary Bills is gradually becoming a very serious matter. It is undoubtedly of great importance that the Ministry should have the advice of the Council on any proposed measure affecting medical education or the government of the profession; and this is the more important now that no medical officer is attached to the Privy Council. But, though the medical profession is pretty well hardened to being taxed for gratuitous advice, it may be well to impress upon her Majesty's Government that the expense of the Medical Council is entirely borne by the profession, while the medical adviser of the Privy Council was paid by the nation; and, further, that matters of the greatest urgency respecting medical education, and thereby affecting the interests of the public, have had to be postponed to the business of advising the Ministry on Bills before Parliament.

We return now to the work done by the Council. The third section of the Report on Parliamentary Bills dealt with Mr. Russell Gurney's Bill "to remove restrictions on the granting of qualifications for registration under the Medical Act on the ground of sex." In answer to the request of the Lord President of the Privy Council for an opinion on this Bill, the Medical Council first referred his Grace to the resolutions passed by them last year on the general question of the admission of women to the medical profession; and then, having been advised that the Bill, as at present drawn, might render it *compulsory* on the licensing bodies to grant their respective qualifications without distinction of sex, and having learned from Mr. Russell Gurney that he had no intention or desire that the measure should be compulsory, the Council suggested that Clause 1 of the Bill should be so amended as to make it quite clear that the extended powers proposed to be granted "would be at the discretion of the bodies concerned, and not obligatory." And the Council further observed that they were of opinion that the qualifications conferred should not, "except at the further discretion of the bodies," carry any right to take part in the government of the universities or corporations, or any right or privilege beyond that of registration, with a view to the practice of the medical profession. It will have been observed that during the discussion on this Bill a resolution was proposed by Dr. Humphry, and seconded by Dr. Rolleston, with the intent of enabling any of the licensing bodies to grant a new qualification for admission to the Register to men or women; but this proposition failed—rightly, we think—to gain support from any other member of the Council.

The fourth section of the Report had reference to communications from the Royal College of Surgeons of England and from the Obstetrical Society of London with regard to the propriety of the registration of midwifery certificates, independently of qualifications to practise medicine and surgery. The Council resolved that it is a serious error in the Medical Act, and one "calculated to be injurious to the public interests," that such independent midwifery certificates can be registered under it; and that it is desirable that the error should be corrected by legislation. They also recommended that a separate register should be established for women "who have been examined in midwifery, and have obtained certificates from any of the corporate licensing bodies included in Schedule (A) to the Medical Act. The action of the Council in this matter will, we doubt not, be approved of by the profession at large.

On the last day of the session three very important subjects came before the Council; and all real consideration of them had to be deferred to the next session. Dr. Haldane brought forward his motion respecting the grievous ignorance in general education displayed by many of the candidates who come up for the professional examinations. The discussion on the matter was not long, but it was certainly disheartening, inasmuch as it afforded ample proof that, notwithstanding the amount of attention bestowed for many years by the Council on the subject, the preliminary education of students is still extremely unsatisfactory. On this point there was not, and indeed there could not have been, any real difference of opinion in the Council: the difficulty was as to how to deal with the matter; but finally the Council resolved to direct the attention of the licensing bodies "to the important fact that, from some of the Reports of the Visitations, it appears that many candidates still enter upon their professional studies who are very deficient in preliminary education." This was really a shelving of a matter which does demand very serious and careful consideration; and we must hope, with Mr. Macnamara, that "the question will be one of the first dealt with next session."

The next business was the Report of the Committee on Visitations. Dr. Humphry, the Chairman of the Committee, did not ask that it should be adopted, but only that it should be received, and entered on the minutes; and the Council in the end, after a discussion that lasted about two hours, accepted his motion to that effect, and resolved that this Report, and the Report of the Committee on Visitations of Examinations of June, 1875, "should be considered on the first day of the session of 1877." Dr. Humphry stated that the representations of the visitors, and the remarks of the licensing bodies upon their reports, were, on the whole, eminently satisfactory. "There was scarcely one of the licensing bodies," he said "which had not responded to the reports of the visitors in, such a way as to alter their examinations in conformity with the views of the visitors, and the alterations had in some respects been very important." But he observed that the great work which the Council had to do at the present time was to exercise the most scrupulous and cautious care as to the manner in which examinations are conducted. His own feeling was that there was "a tendency to exact too much, and to require too large an amount of material to be crammed into the minds during the process of education, and to be extracted from it in the process of examination. There was a tendency to attend rather too little to that which was, after all, the great object of education—namely, the strengthening of the mind to deal with the material which it had before it. The danger lay in the direction of exacting too much *knowingness* and too great an accumulation of facts, and of failing to require sufficient real *knowledge* of the facts and capacity for dealing with them." And he acknowledged to feeling that "it would be a very long time before examinations would be conducted in such a way as to test the students' capabilities." Coming from such a man as Dr. Humphry, these are weighty utterances; and they acquire additional significance and weight when taken in connexion with the consideration of the "table of results" of professional examinations. We have before drawn attention to the very large number of rejections at the professional examinations, and pointed out that it must be due to serious defects in medical education, in the methods of examination, or in both. The table was referred to a committee, and they reported that "in order to arrive at any conclusions on the causes of the rejection of so large a number of candidates in the examinations, it will be necessary to obtain information and opinions from the licensing bodies on the subject," and they suggested that the Executive Committee should be empowered to do this, and should report at the next meeting of the Council. They also noted the points upon which, especially, information should be asked. Mr.

Teale proposed that information on the subject under consideration should be sought from the medical schools also; he had a strong impression, he said, that "the cause of the numerous rejections was, not that the licensing bodies were doing their work more conscientiously, but the cumbrous state of education into which we are drifting." It was allowed that very valuable information might, perhaps, be obtained from the teaching bodies, but unfortunately the Council have no authority to go to them. The Report of the Committee was adopted. A long and minute Report of the Committee on the "Recommendations of the General Medical Council on Education and Examination" was also received, and a resolution passed "that it be considered on an early day of the next session."

The Council have thus ample work prepared for them for the whole of their next session; and we must venture to urge upon them to let nothing interfere to prevent a most attentive and thorough consideration of the subjects postponed this year. They have over and over again delayed taking up the subject of professional education, till an exhaustive examination into and careful regulation of the whole matter have become questions of extreme urgency: students, teachers, and examiners are harassed and perplexed by changes and additions in the subjects required, or "recommended," to be taught and examined in; the proportion of rejections at the examinations increases, and the number of medical men in proportion to the population is diminishing; the tests of preliminary education prove to be very unsatisfactory and inefficient; and the reports of the Committees on the Visitations of Examinations, and on the Remarks of the Licensing Bodies on the Visitors' Reports, have yet to be considered and turned to account. The amount of work of primary importance waiting consideration by the Council of Medical Education is, therefore, very great; and we trust that for their own credit the Council will rigidly adhere to their resolutions to take up these subjects at the very beginning of their next session.

THE HASTINGS WATER-SUPPLY.

We again refer to the subject of the Hastings water-supply, inasmuch as in a certain way it is a national one. Hastings is so invaluable as a health-resort that the country can hardly allow its great natural advantages to be neutralised for want of a proper supply of pure water, if it can by any means be helped. We have, since last writing on the subject in the form of our Commissioner's report, been made the object of much obloquy on the part of certain of the local papers; but we have not been alone in this. We made our report, the facts of which are unimpeachable with one single exception relating to the reservoir at Ecclesbourne—an exception which by no means interferes with our general conclusions, inasmuch as that water is poured into the reservoirs at Clive; and the supply from this source is now rejected even by the Town Council. After our report the inhabitants of Hastings were told to wait, not to form too hasty a judgment; that other reports might be made, not so unfavourable as ours. No secret was made of the fact that the *Lancet* had been asked to send a Commissioner, with the view, as it seemed to local worthies, of pitting one medical journal against another. They forgot, however, that there is such a thing as truth, and that a paper of the standing and importance of the *Lancet*, which has done such good service in sanitary matters, was not likely to belie its character even to please certain men of Hastings. The report was made, and in every respect confirmed our own. Since that time there has been nothing but abuse of the *Lancet* and its Commissioner, sometimes so brutally stupid as to be undeserving notice at the hands of gentlemen. But if ever there was an instance of the story of Balaam and Balak reversed, we have it here.

Again the public were told to wait. Samples of water had been sent to Dr. Frankland for analysis, which would assuredly be assuring. The report by Dr. Frankland has now been for some time in the hands of the Town Council. In due course it ought to have been brought forward at the last meeting of the Town Council, but it does not appear, and cannot now be discussed until July, if it ever is. This suppression of an important document is suggestive. Had it been favourable to the quality of the water it would, doubtless, have been promptly made public, but it requires time for consideration. When it appears, if ever, we too shall have an opportunity of examining it.

Meanwhile, we are glad to think that our report has been the means of removing two of the most abominable nuisances connected with the drinking-water of Hastings. The horribly filthy arrangement we described at Clive was a short time thereafter found to be removed, and the extremity of the pipe carefully turfed over. At Shornden, where, if possible, a still more filthy arrangement prevailed, instructions have been given to prosecute, if necessary, so as to remove the risk of sewage contamination on one side of the reservoir. But, on the other hand, we hear that steps are being taken to mix the good water supplied to St. Leonard's with the contaminated supply of Hastings. As we have again and again pointed out, this is simply going from bad to worse—it will make the Hastings water no better; the St. Leonard's all the worse. There is a certain portion of the water supplied to Hastings perfectly satisfactory, but it is mixed up with surface drainings, which may be of the most noxious quality. Even as matters now stand, typhoid fever is endemic in Hastings, especially in the neighbourhood of Warrior-square, the best in the town. Should such an outbreak occur in a district whose surface-drainage forms part of the watershed supplying Hastings, we shudder at what the result might be; and the bare risk of such a thing is enough to drive every visitor from the town. No such evil fate has as yet overtaken the borough. The authorities have yet time to set their house in order; but sooner or later, if steps are not taken to prevent it, the evil day will come—and when it does, warnings now despised will be remembered. It is of no use for the Hastings authorities ostrich-like to hide their heads in the sand, or to cry "Peace, peace," when there is no peace. The state of matters as regards the borough water-supply has now been made public. Our professional brethren are well aware of the risk they run in recommending patients to go to a place where this is so unsatisfactory; and if steps be not taken to remedy matters in this respect, the source of Hastings' prosperity will soon be sapped. We do not presume to offer any panacea for this state of things; we have no scheme, great or small, to uphold. Our only desire is that a place of the importance Hastings possesses as a health-resort should have a due supply of wholesome water.

Since writing the above we have received a copy of the report of the committee appointed by the Town Council to take into consideration the question of the water-supply. A more lame and impotent document it would be hard to conceive. It admits everything alleged; it contains only the scantiest reference to Dr. Frankland's report, though—apparently acting upon it—they propose to close the Ecclesbourne reservoir, but leave the still more dangerous reservoirs of Clive, Old Roar, and Shornden. The report is mainly occupied with a recital of what has already been done to improve the water-supply, implying, we dare say, that the same confidence may well be vouchsafed to the rulers of Hastings in the future. But these rulers forget certain important facts—1st, that the sources of supply have been all or nearly all tapped; 2nd, that Hastings is rapidly increasing; 3rd, that the sources of surface-supply—which is the main supply—from the rapid extension of building are becoming more and more dangerous, and that these

gathering districts are not under the control of the Urban Sanitary Authority. The authorities have refused to supply water beyond their proper boundaries. The water-supply of the inhabitants of these parts is sure to be more or less dangerous, and an outbreak of typhoid or cholera in any one of the gathering districts would speedily be followed by disastrous results to Hastings.

The report refers in its feeble manner to the quality of the water in certain springs. It will be remembered by those who took the trouble to read our report that we then pointed out that certain of the wells were unexceptionable, but no one pretends to say that these wells supply enough water for the use of the borough. We spoke of a small well containing bright, clear water a short way below the chief reservoir. This is the "Dr. Maccabe's spring," about which they now talk. It would not supply a village, and the committee have no reason to conclude that "the new wells being within so short a distance of Dr. Maccabe's spring, the water is identical." Be that as it may, the water supplied by these springs is insufficient for the wants of the town, and we emphatically repeat *that the mixing of good water with bad does not diminish the risks from the bad water, but renders the good as dangerous as the bad.* This, we trust, will be clear to all.

Approaching the subject of quantity. The Ecclesbourne supply, be that great or small, is now to be cut off, and no substitute has been provided. If the quantity was insufficient before, as we believe it to have been, it must now be still less; and, as a practical commentary on this, a circular has been issued, stating that all water used beyond a given quantity will be charged for extra—a notable plan to reduce expenditure.

The suppression of Dr. Frankland's report is a still more serious matter. Its publication would have enabled men to know the best and worst of the matter; the action of the Committee has only filled their minds with suspicion. The public have, however, the remedy in their own hands. The expenses of the analyses must have been met by the funds supplied by the ratepayers, to whom, and to whom alone, therefore, the report belongs. A little close investigation of the borough accounts on this and certain other allied matters might do wonders.

But if anything thoroughly and completely discredits the authorities on the water question, it is their conduct to the local medical practitioners. The local Medical Society, embracing all the important medical men of the neighbourhood, appointed a distinguished committee to confer with the authorities on the water question, but on applying for an interview they were rudely repulsed. Truly this is carrying matters with a high hand. We are glad to see that the more respectable of the local newspapers are taking up the whole matter in a proper spirit. Of these the *Independent* is the most worthy of notice. One, however, has made itself notable as the "officious" apologist and bully of authorities who should not need such an ally.

THE VIVISECTION BILL.

The Vivisection Bill has passed through Committee in the House of Lords, but in so doing has received certain modifications which show that the representations made, almost unanimously, by the medical profession have not been altogether void of result. First, the title has been rendered somewhat less obnoxious, though not to a very great extent. Instead of being an Act to prevent Cruel Experiments on Animals, it is to be intituled "An Act to amend the Law relating to Cruelty to Animals." Our former objections still remain; but, undoubtedly, the proposed title is an improvement on the former one.

The most important discussion, however, turned upon the restrictions of experimentation to such as alone would promise immediate good to humanity. Here Lord Cardwell, chairman of the Royal Commission, spoke well and satisfactorily; whilst Lord Coleridge, we need hardly be "surprised to know," delivered himself of what we cannot help calling arrant nonsense. According to him, no experiment on an animal, however likely to be beneficial to the human race, would be justifiable—the *corpus vile* must be human; and he quoted an anonymous letter which roundly asserted that this is the case. Such statements as those made in Lord Coleridge's speech in the House of Peers we scornfully repudiate.

In the end, Lord Carnarvon accepted the amendment, and admitted the modification proposed to the extent of allowing experiments to be performed for the advancement of "physiological knowledge" not immediately applicable to medicine. On the third important point the Government stood fast. It has been contended that the prevention of all experiments, save in registered places, would unduly interfere with the pursuit of scientific research; and to a certain extent this is true. But the principle of inspection has been admitted, and, say the Government authorities, How can we inspect if we do not know where to find the experimenters? There is a certain amount of truth in this, and as there is no definition of the nature of a registrable place, the difficulty may be overcome. On the question of experimenting on dogs and cats the Government have also given way. They have added horses, mules, and asses to the list of what we might term contraband animals, but they have added the following clause:—Experiments on these animals are prohibited as before, "except on such certificate being given as in this Act mentioned, and that for reasons specified in such certificate, and where the object of the experiment would be necessarily frustrated unless it is made on an animal similar in constitution to a dog or a cat, and no other animal is available for the purpose." This, again, is an important modification, and renders the clause much less obnoxious; but the matter is not finally settled, and will come up again on the report.

The only other matter of the slightest importance was the addition of certain names to the list of those who may sign certificates, namely:—The Presidents of the Royal Society of Edinburgh, of the Royal Irish Academy, of the General Medical Council, and of the Faculty of Physicians and Surgeons of Glasgow.

We must see the Bill as brought up on report before we can venture to say very much on its satisfactory or unsatisfactory character. Meantime, the amendments are substantial improvements, and help to make the compromise a little less lop-sided than heretofore.

THE WEEK.

TOPICS OF THE DAY.

At a meeting of the St. Pancras Guardians, held last week, a letter was read from the Local Government Board, calling attention to the report of a child having been laid out for dead, whilst still alive, by one of the pauper nurses. The Board supported the recommendation of the jury that inquired into the case: that a properly qualified assistant should be employed in the lying-in ward of the workhouse. This communication was discussed at some length, the Guardians generally attempting to throw the responsibility of what had occurred on Dr. Hill, the medical officer, and a resolution was adopted referring it to the Visiting Committee to report on the manner in which his duties were discharged. It was also agreed that post-mortem examinations of persons dying in the workhouse should be made by some medical man other than Dr. Hill. If we correctly remember the circumstances of the case, the fault would appear to have rested more with the authorities who employed a half-witted girl to assist the matron in her duties, than with the medical officer.

An outbreak of scurvy, which has justly excited the immediate attention of the Board of Trade authorities, is reported from Falmouth. The brig *Cecilia*, of London, from Lagos, West Coast of Africa, arrived off that port and received orders for Hamburg on the 10th inst. She anchored about three miles off the harbour for the purpose of obtaining supplies, the whole of the crew suffering more or less from scurvy. On the 14th inst. the crew were discharged, and each man received a sum of money amounting to £5 18s., being one shilling per day for the voyage home, for having had short and bad provisions. Samples of the food, however, were brought on shore by the crew to be forwarded to London, and Dr. Spooner was immediately despatched from Liverpool by the Board of Trade to make an inquiry into the condition of the food and the accommodation on board, assisted by Dr. Harris. The brig has left for Hamburg with a fresh captain and crew, and the invalided men are slowly recovering.

The Governor of the Liverpool Workhouse reported last week to the Committee that eighty-five Russian emigrants, infected with measles, had been admitted into the house on the application of the Dominion Steamship Company, by whom they had been brought from Hull *en route* for Canada. Fifty-five of them were brought to the workhouse on the 12th inst., and other batches had arrived since then. The report adds that the condition of the emigrants was so apparent that it was incomprehensible how the medical officers of the Company could have passed them as healthy at Hull, where they were inspected. Mr. Owen, the chairman of the Committee, said that the Company would pay for the maintenance of the emigrants, but the workhouse authorities were not by any means bound to take them in. It was time some steps were taken, by application to the Government or otherwise, to establish an institution for the reception of such cases.

After a most searching inquiry, the coroner's jury assembled to investigate the causes which occasioned the death of Eliza Gomez—who died through injuries received at the accident which happened at St. George's Hospital,—returned a verdict of "Accidental death" from the fracture of the tank, and they appended to their verdict a recommendation that in future, after each cleansing of the tank, some competent person should be appointed to examine it as to its strength. By "competent person" they explained that not merely a workman should be employed, but some one representing Messrs. Easton, or anyone whom the authorities of the Hospital selected, and in whom they placed their confidence. In answer to the Coroner, the foreman of the jury remarked that the cause of the fracture of the tank was the slipping of the tie-end. It is satisfactory to be able to note that the friends and supporters of the Hospital, assisted by the general public, have already subscribed liberally towards the restoration of the building, but we fear that a very large sum will be necessary to repair the damages so unfortunately inflicted.

The order of the Local Government Board affirming the street improvement scheme proposed by the Corporation of Birmingham has just been issued, and will be incorporated in a Government Bill to be introduced in the House of Lords. After reciting in full the scheme and the estimates attached thereto, the order sets out the subsequent proceedings for publication, service of notices, etc., and authorises the execution of the scheme, with the sanction of Parliament, subject to certain conditions and modifications, of which the principal are that only so much of the condemned area shall be cleared at one time as will be sufficient for the provision of accommodation for at least 500 of the persons displaced in carrying out the scheme, and that no further clearances shall be made until dwellings for a similar number have been completed. The compulsory powers extend not only to the unhealthy area, but also to those parts which are necessary to make that area efficient for sanitary purposes, or to widen the approaches to it, as well as to the parts required for providing accommodation for the persons displaced by the demolitions.

Our contemporary *Iron* remarks that the profession of a seaman is, in many respects, a healthier one than most indoor occupations; but it, nevertheless, has its sanitary drawbacks. Sailors are, especially in later life, liable to rheumatic disease and other complaints originating in exposure to the elements, often under circumstances of physical exhaustion from overwork and want of sleep. Of broken limbs and sprains they have also more than their proper share; and the wretched forecastle accommodation in all but ships of the first class renders fever on board by no means of rare occurrence. When accident or disease prostrates the man there is generally no medical adviser at hand, although a selection of simple medicines is usually placed in charge of the master. Some of these officers have sufficient acquaintance with medicine to be able to treat ordinary cases; but it has been wisely suggested that, before obtaining certificates, each master mariner and chief mate should be obliged to acquire a rudimentary knowledge of the more necessary parts of medicine and surgery. Such studies need not occupy much time, or cost much money. And as it is asserted that no foreign-going English ship comes back on an average less than one hand short from accident or disease, the importance of such training must be sufficiently obvious to everyone.

Golwood, a village of 200 people, on the Bombay and Baroda Railway, has been the scene of one of the most frightful outbreaks of cholera ever known. Over half of the population died in three days. The disease appeared at noon on the 4th inst., and before daybreak next morning there had been fifty-seven deaths. On the 8th all the survivors fled, but were refused admission by the adjacent villages. The disease displayed extreme virulence, some cases proving fatal in twenty minutes. In these cases the ordinary cholera symptoms were absent, and the body at the first stroke of the disease became livid, convulsed, and shrunken. There is no resident doctor in the village, and medical help was some time in arriving. Gross neglect of sanitary measures is the apparent cause, as it is stated that the people were living in inconceivable filth. Cholera appears to be unusually prevalent in India this year, outbreaks being reported from various quarters, none, however, approaching that of Golwood in violence.

Last Sunday was the anniversary of Hospital Sunday in the metropolis, and collections in aid of the Fund administered under the Lord Mayor's presidency were simultaneously made at about 1100 places of worship of all religious sects and denominations in the metropolitan area. The number of ministers assisting in the movement has been again increased this year, and it remains to be seen whether the amount collected will exceed what has been obtained in previous years. Up to Wednesday evening nearly £13,000 had been received at the Mansion-house—the largest sum heretofore received up to the same date. This included £156 from St. Paul's Cathedral; £269 from Westminster Abbey; £242 from St. James's, Paddington; £200 from St. James's, Westmoreland-street; £151 from St. Matthew's, Bayswater; £354 from St. Michael's, Chester-square; £210 from the Metropolitan Synagogue; £100 from the Bayswater Synagogue; £300 from the Berkeley-street Synagogue; £100 from the Central Synagogue; £250 from the Great Synagogue, Duke-street; £90 from the Chapel Royal, Savoy; £170 from All Saints', Knightsbridge; £175 from St. Andrew's, Wells-street; £145 from St. Mark's, North Audley-street; £356 14s. 7d. from Quebec Chapel; £131 5s. 11d. from Grosvenor Chapel, South Audley-street; and various smaller sums. It is to be hoped that the Mansion-house Committee will see their way to an earlier distribution of the

Fund this year, in order that the result achieved may be sooner made public.

The application to the Court of Queen's Bench on the subject of reopening the investigation into the cause of the death of the late Mr. Bravo, of Balham, was made last Monday. The Lord Chief Justice presided, and the Attorney-General, instructed by the Treasury Solicitor, conducted the application. The grounds for reopening the inquiry were stated to be that the finding of the jury was uncertain and incomplete, and that the inquisition was taken in such a perfunctory and unsatisfactory way that there was really and truly a miscarriage of justice. At the termination of the proceedings, the Lord Chief Justice granted a rule *nisi*, and next Monday was fixed for the further arguments.

DEATH OF STROMEYER, OF HANOVER.

It is with much regret we record the sudden death of Stromeyer. On the morning of June 15 he rose in his usual health, and at ten was dead from apoplexy after a few minutes' illness. He died in harness, being actively occupied in his profession till the last. We do not at present purpose reviewing Stromeyer's scientific life. Two years since, Stromeyer published, under the title of "Recollections of a German Surgeon," his autobiography. It created much interest and some controversy in Germany, yet appears to be unknown here. From beginning to end this book reads like a novel: is full of interesting details on places and men, the Danish wars, the overthrow of the King of Hanover, the last great war. Besides the details given concerning the teachers under whom Stromeyer himself studied in various German universities and in London, his own experiences as a professor are vividly set forth. Only in April last Stromeyer had all possible honours heaped upon him; and not the least, one may be sure, in his estimation was that offered to him by his English colleagues. The bust that it was decided to obtain is nearly ready, and is stated to be an excellent one. The Committee of the Stromeyer Testimonial purpose shortly issuing a final circular reporting their proceedings to the subscribers, and with this they promise to send an admirable photograph of Stromeyer, specially taken for the purpose. The first copy of this photograph, which is a splendid likeness, came to Mr. Mac Cormac from Miss Stromeyer, with the announcement of her father's sudden death, and stating that the last words he wrote were upon the back of the photograph. They are so admirable in their simplicity, so characteristic in their modesty, and under the circumstances so pathetic, that we gladly accept Mr. Mac Cormac's permission to publish them:—

"My dear Mac Cormac,—
You wished to see my photograph,
Adorned with crosses and with stars,
The gift of emperors and kings.
It fades away; a marble bust
Will take its place in memory,
Shining in its simplicity.
There is no room for vanity
Amongst your peers of surgery.
Hanover, June, 1876, Marien Strasse 8."

ST. ANDREWS GRADUATES' ASSOCIATION.

The anniversary session of this Association was held at the St. James's Hall on the 19th inst. The report of the Council contained the reasons for the revival of an Association of the Graduates of St. Andrews, and the extension of membership to other faculties than that of medicine. By a late resolution of the General Council of the University, a committee sits in London, consisting of the Principals Tulloch and Shairp, Professors Swan and Pettigrew, Dr. Richardson and Dr. Cleghorn, and such members of the Council of the St. Andrews Graduates' Association as are members of the General Council of the University. The attention of graduates is called by the Council to the fact that many of them have not become members of the General Council of the University, and, consequently, cannot vote either for the member of Parliament or for the Assessor. The mode of admission is to give notice of the intention to the Registrar, and the payment of a fee of £1. The dinner in honour of Principal Tulloch was numerously attended. The following officers and Council were elected for the ensuing year:—*President of Council:* Dr. B. W. Richardson, F.R.S. *Hon. Treasurer:* Dr. Paul. *Hon. Secretary:* Dr. Sedgwick. *Council:* Drs. Cholmeley, Christie, Cleveland, Coles, Crisp, Crosby, Day, W. H. Day, Dudfield, Griffith Griffiths, Hill, Holman, Wharton Hood, Hughlings-Jackson, Lawrence, Lush, M.P., Macintyre, Mr. Menzies, Dr. Moon, Professor Pettigrew, F.R.S., Drs. Painter, Julius Pollock, Rev. Dr. Rogers, Drs. Royston, Lawes Rogers, Joseph Rogers, Cooper Rose, Seaton, Scott, Willett, Rhys Williams, Wynn Williams, Wiltshire, Woodman, Whitmore, Duckworth Williams.

OSTEOTOMY OF THE FEMUR.

The patients who were exhibited at the meeting of the Clinical Society on May 12 (reported June 17), and at the Harveian on the 18th, to illustrate Mr. Maunder's paper on osteotomy, had been individually submitted to section of the femur by means of *three* chisels, as suggested by Professor Volkmann, of Halle. On the former occasion Mr. Maunder showed a chisel (a carver's, three-eighths of an inch wide), which he expected would supplant the use of the three of a different pattern. His expectation has been fulfilled in the case of a male adult submitted to this operation on May 17 by himself. The bone was readily divided, and no method could be more simple. The straightforward action of a chisel would seem to be less likely to damage the structures than the prolonged to-and-fro movement of a saw, neither would there be any *débris*. In the patient above alluded to the deformity was extreme. This has been altogether corrected by the operation, the wound in the soft parts healing by primary union. Five weeks have now elapsed, and the scar is barely perceptible.

HOSPITAL FOR DISEASES OF THE THROAT.

The biennial festival of this charity took place on Wednesday, the 21st inst., at Willis's Rooms, Earl Cowper, K.G., in the chair. The noble chairman was supported by Admiral Lord William Compton, Lord Charles Bruce, Colonel the Hon. Percy Fielding, C.B., Sir R. Palmer, Bart., Colonel Pinney, Colonel Roberts, Mr. Recorder Cooper, the Rev. Dr. Bell, Rev. H. R. Haweis, Rev. Dr. Conway, Drs. Morell Mackenzie, Semple, Whistler, and Messrs. Pugin Thornton, Myles Fenton and Louis Sterne,—the party consisting altogether of upwards of one hundred ladies and gentlemen. Several toasts were drunk, and in returning thanks for "The Ladies," Miss Kate Field, the American actress, made a very amusing speech. Donations towards the new building amounting to upwards of £1400 were announced during the evening. The musical arrangements were very completely carried out under the direction of Mr. Ganz.

THE GENERAL MEDICAL COUNCIL AND THE BRITISH MEDICAL DEFENCE ASSOCIATION.

The memorial addressed by the British Medical Defence Association to the Medical Council, urging the "pressing necessity for an immediate alteration in the Medical Acts in order to check more effectually the practice of medicine and surgery by ignorant and unqualified persons," was brought forward at the close of the session. There was no time to spare for its consideration, but it was very courteously received, and, on the motion of Mr. Simon and Dr. Andrew Wood, it was resolved that "the memorialists be informed that at any time when the Council may have under consideration the question of an amendment of the Medical Act, the subject to which the memorial refers shall have the careful consideration of the Council." The memorial is given at length at page 663 of our present volume.

THE HARVEIAN ORATION.

The Harveian Oration will be delivered before the Royal College of Physicians on Monday next by Sir William Jenner, in place of the lamented Dr. Parkes. Sir William promptly came forward to supply the void occasioned by the death of the Orator-elect, but, fortunately, he has not been called upon to give time and powers so valuable to the construction of an oration. How admirably he would have done this all must know. However, it has so happened that among Dr. Parkes's papers has been found the address he intended to deliver, so far completed as to admit of its being used by Sir William Jenner on the occasion in question. Many will doubtless avail themselves of this opportunity of listening to the words of one who, "being dead, yet speaketh." We hope to publish the Oration in full next week.

PARLIAMENTARY.—HARROGATE BOARD OF HEALTH—SOLIHULL SANITARY AUTHORITY—VIVISECTION.

In the House of Commons, on Thursday, June 15,

Mr. Sclater-Booth, replying to Mr. Mills, said he had received memorials and remonstrances of a rather voluminous character from the neighbourhood of Harrogate in regard to the dismissal by the Board of Health of their Medical Officer. Whether it would be expedient for the Government to take any action on the subject depended on certain technical matters which were now being inquired into.

On Friday, June 16,

Mr. Sclater-Booth said it was not intended to supersede the decision of the Solihull Rural Sanitary Authority in reference to the "Knowle Drainage Scheme," and that he was not aware the Local Government Board possessed the power to do so.

In the House of Lords, on Tuesday, June 20,

Their Lordships went into Committee on the Cruelty to Animals Bill.

On Clause 1, the Earl of Carnarvon stated that at the proper time he intended to propose that the title of the Bill be changed from "An Act to prevent Cruel Experiments on Animals" to "An Act to amend the Law relating to Cruelty to Animals." He would do so in deference to an opinion expressed by a deputation of the profession.

On an attempt to define "a living animal," the Earl of Carnarvon said that the General Medical Council having spent half a day in a similar fruitless attempt, he would recommend that there should be no such definition.

On Clause 3, Lord Rayleigh proposed as an amendment to strike out the words "restricting vivisection to experiments for the saving or prolonging human life or alleviating human suffering," and insert the words "permitting of vivisection for the advancement of medical or physiological knowledge."

The Earl of Carnarvon objected to the amendment, but accepted an amendment of Lord Cardwell's "almost identical" with that of Lord Rayleigh.

The Duke of Somerset thought it savoured of hypocrisy to make a proposal that learned surgeons should be punished for acquiring knowledge of which the whole world reaped the advantage.

Lord Cardwell's amendment was agreed to.

Other sub-sections of this clause were agreed to after an attempt had been made in debate to strike out that part of the clause which limits the performance of experiments to places duly registered for that purpose.

Clause 4, limiting the use of "rari," was agreed to.

On Clause 5, the Earl of Carnarvon said that he should propose, when the report is read, to insert after the word "cat" the following words:—"Except on such certificate being given as in this Act mentioned, and that for reasons specified in such certificate and where the object of the experiment would be necessarily frustrated unless it is made on an animal similar in constitution to a dog or a cat, and no other animal is available for the experiment."

On Clause 11, which sets forth the names of the scientific bodies who may give certificates for the making of experiments, the Earl of Carnarvon proposed to add the Presidents of the Royal Society of Edinburgh, the Royal Irish Academy, the General Medical Council, and the Faculty of Physicians and Surgeons of Glasgow.

The remaining clauses were agreed to.

FROM ABROAD.

Mortality Returns of the Paris Hospitals.

In his report for the first quarter of this year (*Union Méd.*, May 9, 16, and 20), M. Besnier states that during this period the temperature was below that of the mean of that of the four preceding years, the barometrical pressure generally only slight, while the excessive rains gave rise to inundations. The general mortality of the civil hospitals exceeded the mean of the corresponding quarter of the four preceding years by 400 deaths, the deaths in the hospices being much less increased. The total mortality of the civil hospitals and hospices for the quarter amounted to 3250.

1. *Affections of Respiratory Organs.*—The proportion of deaths from phthisis was 57·70 per cent., as compared with 53·52, the mean of the same quarter in eight preceding years. Of course many patients are dismissed still living with this disease, so that the number of deaths recorded does not show its absolute mortality. The mortality from pneumonia (34·11 this quarter) may be considered as exceeding by a third the absolute mortality of this disease. A hospital population, more and more undermined by alcohol, ill resists inflammatory affections of the lung; and there are also many aged persons brought in with secondary pneumonia only to die. The mortality from pleurisy is returned at 14·39, as compared with the mean 11·62.

2. *Diphtheria and Croup.*—The increase in the number and gravity of the cases of these diseases has continued progressively for some years past, and this quarter they have been characterised by such malignity that almost all the operations performed for croup have terminated fatally. During the quarter there have been admitted 148 cases of croup, and of these 118 or 79·73 have died—the mean mortality of the same quarter during the preceding six years having been 76·54. In M. Archambault's wards at the Hôpital des Enfants, of 19 cases 18 were operated upon, and only 1 recovered. In all these cases there was also *angine couenneuse*, and in all except one albuminuria. Several of the children resisted death for several days, and one of them died only on the seventeenth. In the same hospital, M. Labric had 15 cases of croup, 1 only recovering without operation. Of 14 operated upon, 2 recovered and 12 died. Of 7 cases of diphtheria, 4 died and 3 recovered. In the ward for chronic cases, M. Simon had 6 cases of diphtheria, half recovering and half dying of "inoperable" croup. In private practice he met with many cases of diphtheria, in the best parts of Paris, occuring in children between four and twelve. At the St. Eugénie, M. Bergeron treated 31 cases of pharyngitis (usually diphtheritic pharyngo-laryngitis), and of these 31 patients 5 were discharged cured. If diphtheria and croup are studied separately, it will be found that the former is by far the more fatal. Thus, of 10 patients in whom the isthmus and back of the pharynx were alone invaded by false membranes, 9 proved fatal; but of 21 cases of croup, all operated upon, 4 recovered. With the exception of two of these, all the others had pharyngeal diphtheria; and it is certain that some of those seized with the grave form of the disease—characterised by pallor and puffiness of the face, submaxillary doughiness around the enlarged glands, and nasal discharge—succumbed rather to specific poisoning than to thoracic complications. None of those who recovered had these signs of septic diphtheria; but with the exception of one, all had to struggle with serious complications. M. Cadet de Gassicourt, also of the St. Eugénie, met with only 1 recovery in 13 operations for croup. He attributes this mortality to the unfavourable conditions under which these patients are admitted, some being in a state of asphyxia, and others the subjects of malignant diphtheria; and the bulk suffering from rickets, or scrofula, and all the attributes of "physiological wretchedness." This great fatality of diphtheritic and croupal affections has, it seems, however, characterised civil practice also where no such conditions prevailed.

3. *Variola.*—As M. Besnier has shown in former reports, a temporary lull of variola during the summer and autumn months is the normal condition of the evolution of the disease, even when epidemics of it are in progress. In the winter months the exacerbations occur, and this last quarter has found the disease still on the increase, the deaths having risen from 6 in the same quarter of 1873, and 43 in 1875, to 102 in 1876.

The disease, in fact, will inevitably attain its "mean level" as long as the establishment of permanent precautions against it are delayed. M. Besnier points out the great advantage that has accrued from the partial exclusion of small-pox patients from the general wards, which was so long resisted—the 113 cases (96 recoveries and 14 deaths), which have been this quarter treated in separate services, being thus prevented forming so many centres of contagious diffusion. The opposition to complete isolation made by inertia and administrative routine is still considerable, and this has in several cases been supported by medical opinion; and thus, in consequence of the opposition of his colleagues, M. Leudet has not yet been able to obtain its establishment at the Hôtel-Dieu of Rouen. In Paris the hospital administration has taken the matter up energetically, and will, no doubt, soon issue a general order to all the establishments under its control. M. Besnier hopes, when this isolation has been enforced for variola, it will be extended to other diseases, especially in children's hospitals. Children admitted into these for affections in nowise dangerous often fall victims to diphtheria, rubeola, scarlatina, or pertussis, which they contract within the walls of the hospital itself. Of 16 cases of rubeola treated by M. Archambault during the quarter, 8 had their origin within the walls of the hospital itself. Even an imperfect system of isolation has proved of great service, and M. Bergeron reports that scarlatina, which had well-nigh disappeared from the wards of St. Eugénie at the end of 1875 (scarlatina seems to be a far less prevalent and less destructive disease in Paris than in London), has reappeared this quarter, 16 cases having been admitted. But all these came from outside, and since their admission no case has appeared in the other wards—a happy contrast to what occurred in 1874 and 1875, and due to the (as yet incomplete) system of isolation established.

The Medical Members of the French Parliament.

The number of medical men having seats in either the Senate or Chamber of Deputies amounts to fifty-four—a larger number than was ever before returned to any of the numerous preceding French Assemblies. They have formed themselves into a sort of club or committee, irrespective of their political opinions, with reference to medical subjects. From the account we have seen of their programme it would seem that it is their intention to watch over the various measures brought in having medical and sanitary relations, and to originate themselves any measures which they may think useful for the furtherance of medical interests and questions of public health. This practical procedure does not, however, satisfy the enthusiasts who believe that the presence of so many learned doctors is an opportunity not to be lost for modifying the whole status of the profession. Thus, M. Latour, a veteran but somewhat visionary reformer, in a recent *feuilleton* of the *Union Médicale*, calls upon them not to waste their energies in the perfection of some partial projects having no coherence or connexion with a general and comprehensive plan, but to remember that "all is held together and enchained in the vast question of medical economy, teaching and practice being so closely connected that it is impossible to separate these two elements of the same question without falling into confusion, contradiction, and 'illogism.'" He then sketches out with his too facile pen the line he would have them pursue. First, they have to undertake the not too easy task of "preparing the minds" of (in our Parliamentary phrase, of "educating") their colleagues in the Senate and Chambers for the consideration of a general and comprehensive law on the organisation of medical education and practice—instilling a just and sound appreciation of medicine and doctors, thus "completing the education, too often imperfect, of men of the world, by philosophical, scientific, social, and moral considerations on the humanitarian applications of our science, and on the beneficent part the physician has to play"! Men like these medical legislators, who have had to meet all the exigencies of their education and the difficulties and impediments to honest and loyal practice occasioned by charlatanism and illegal interlopers, are, he says, surely those who are likely to understand the close solidarity of all the questions relating to medical organisation and the absolute necessity that these should not be separated. To listen to this appeal made to the fifty-four members in question, beseeching them to settle the most complicated and weighty matters by some grand legislative measure, one would think that they had been chosen by the medical body itself for their special aptitudes, instead of owing their election to the ordinary political reasons, and certainly in nowise to their medical qualifications, which it is safe to suppose, from their accepting their present positions, are not very remarkable. Let them beware of the voice of the charmer, and, turning away from these grand *ensembles*, which have been the rocks on which so many Frenchmen have split, confine their attention to improving the various practical and practicable measures as these are brought before them.

MEDICAL NEWS.

Royal College of Physicians of London.—The following gentleman was admitted Fellow on June 16, viz.:—

Legg, John Wickham, M.D. Lond., 47, Green-street, W.

King and Queen's College of Physicians in Ireland.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, June 13, 14, and 15, the following candidates obtained the licence to practise Medicine:—

Armstrong, John.	Middleton, John Jameson.
Coyne, Francis Kennedy.	M'Nulty, John.
Fairclough, John James Kent.	M'Parland, Owen Aloysius.
Gould, Edward Gardiner.	Ross, Charles Emilius.

The licence to practise Midwifery:—

Armstrong, John.	M'Nulty, John.
Coyne, Francis Kennedy.	M'Parland, Owen Aloysius.
Marks, Edward Geo. Keighley.	Ross, Charles Emilius.

Royal College of Surgeons of England.—At the last meeting of the Council the following Members were elected Fellows of the College, viz.:—

Whitehouse, Edward Orange Wildman, of Thurlow-road, Hampstead diploma of Membership dated August 4, 1840.

Jennings, Joseph Cave Spicer, L.S.A., Abbey House, Malmesbury, Wiltshire, February 26, 1841.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 15:—

Bird, George Gwynne, 14, Berners-street, Oxford-street.
Hopkins, John, Northwich.
Lamprey, Joseph John, Monkstown, County Dublin.
Quicke, William Jenkins, King's Lodge, Exeter.
Sidebotham, George William, Hyde, Manchester.

The following gentlemen also on the 8th and 15th inst. passed their primary professional examination:—

Dunstan, William, Guy's Hospital.
Heritage, Julius Harvey, Westminster Hospital.
Jaynes, Victor Alexander, Guy's Hospital.
Leahy, Albert Denis, Charing-cross Hospital.
Ross, Ronald, St. Bartholomew's Hospital.
Thain, Leslie Lachlan, University College.
Trewman, George Turner, Westminster Hospital.
Tribe, Herman Thomas B., London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Ellis, J. W.—House-Surgeon to the Huntingdon County Hospital, *vice* C. W. Godfrey, resigned.

BIRTHS.

Alderson.—On June 20, at Southerton House, Hammersmith, the wife of Frederick H. Alderson, M.R.C.S. Eng., of a son.

De Chaumont.—On June 15, at Woolston Law, near Southampton, the wife of Surgeon-Major F. de Chaumont, M.D., of a daughter.

Dukes.—On June 19, at The Crescent, Rugby, the wife of Clement Dukes, M.B., B.S. Lond., of a son.

Evans.—On June 12, at Hertford, the wife of J. Tasker Evans, M.D., of of a son.

Garman.—On June 12, at 143, Bow-road, Middlesex, the wife of Cornelius E. Garman, M.R.C.S. Eng., of a son.

Hilliard.—On June 15, at York Town, Surrey, the wife of Henry C. Hilliard, M.D., of a son.

Maunsell.—On May 2, at Ootacamund, Madras, the wife of Surgeon-Major C. A. Maunsell, prematurely, of a son, who only survived birth a few hours.

Pearson.—On June 19, at 23, Upper Phillimore-place, Kensington, the wife of David R. Pearson, M.D., of a daughter.

Roberts.—On June 19, at Uxbridge, the wife of Charles Roberts, M.R.C.S., of a daughter.

Robertson.—On June 13, at 6, Arran-place, Ardrossan, the wife of R. Beedie Robertson, F.R.C.S.E., of a son.

Thomson.—On June 11, at Pembroke-road, Clifton, the wife of W. Thomson, M.D., of Algiers, of a son.

MARRIAGES.

Cross—Parker.—On June 14, at St. James's Church, Paddington, John Cross, B.A., M.D. Cantab., of 7, Stanhope-terrace, Regent's-park, to Marianne, second daughter of T. R. Parker, Esq., of Maida-vale, W., and Parliament-street, Westminster, and nicce of G. Henderson, M.D.

Curtis—Jones.—On June 15, at St. John's, Upper Holloway, the Rev. Ed. Curtis, curate in charge of Metheringham, Lincolnshire, third son of the late William Curtis, M.R.C.S. Eng., of Harting, Sussex, to Emma Elizabeth, only child of the late William Jones, Esq., and granddaughter of the late Rev. Thos. Jones, of Enfield, Chaplain of the Chapel Royal, Whitehall.

Davies—Jackson.—On June 17, at St. Luke's, Chelsea, Francis Pritchard Davies, M.B., Superintendent of the Kent County Asylum, Barmingheath, near Maidstone, to Agnes Warden, youngest daughter of the late Alexander Jackson, Esq., of Chiswick.

Fleetwood—Ruttledge.—On April 4, at Christ Church, Warrnambool, Victoria, Thomas Falkner Fleetwood, M.D., ex-Sch. and University Student, T.C.D., eldest son of T. F. Fleetwood, Esq., of Rathgar-road, Dublin, to Susie, fourth daughter of W. Ruttledge, Esq., of Farnham-park.

Gray—Bell.—On June 15, at St. Nicholas, Rochester, Frederick W. Gray, of Greenheys, Manchester, to Mary Elizabeth, younger daughter of William Bell, F.R.C.S., of Rochester.

Gray—Kershaw.—On June 8, at Christ Church, Lee, Charles Gray, Surgeon-Major half-pay, late Rifle Brigade, to Elizabeth, eldest daughter of the late James Kershaw, M.P., of Uplands, Streatham.

Johnston—Dalton.—On June 15, at the parish church, Chieveley, Berkshire, David Mulrea Johnston, M.D., of Holywood, County Down, to Clara Agnes, youngest daughter of the late Thomas Dalton, Esq., of Hollygrove, Mottram-in-Longdendale, Cheshire.

Manning—Thorne.—On June 15, at the parish church, Shifnal, Shropshire, Leonard Archibald Manning, M.A., M.B. Dub., of Llanymynech, Shropshire, to Essie Anna, elder daughter of the late William Thorne, Esq., of Haughton, Shifnal.

Newman—Cumming.—On June 12, at Milverton, Somersetshire, William Newman, M.D. Lond., F.R.C.S. Eng., of Stamford, to Charlotte, daughter of the late Walter Cumming.

DEATHS.

Bird, Curtis James, M.D., of Winnepeg, Manitoba, Canada, at 25, Surrey-street, London, after a few days' illness of inflammation of the lungs, on June 15, aged 33.

Brown, Samuel Stainton, M.A. Oxon., M.R.C.S. Eng., only surviving son of the late S. W. Brown, F.R.C.S., of Lewisham, at Lewisham, on June 12.

Charlton, Mary Frances, wife of Egbert Charlton, M.D., 17, Norfolk-street, Park-lane, at St. Leonard's-on-Sea, on June 14, in the 37th year of her age.

Featherston, Isaac Earl, M.D., Agent-General for New Zealand, at 60, York-road, Brighton, on June 19, aged 63.

Grey, George, M.D., F.G.S., at Kruid Fontein, District of Middleberg, Cape of Good Hope, on April 30, aged 45.

Kittermaster, James, M.D., formerly Lieutenant in the 49th Regiment, at Meriden, Warwickshire, on June 18, in his 88th year.

Miller, Frances Sarah, wife of George Miller, M.D., formerly of Emsworth and Sidmouth, second daughter of the late Capt. Dewes, 28th Regiment, at Chippenham, on June 17, aged 71.

Ogilvie, Alexander, surgeon, at 4, Lime-grove, Shepherd's-bush, on June 12, aged 74.

Whitlock, Hubert Carlton, M.R.C.S.E., Health Officer of the city of Demerara, British Guiana, son of the late Hubert Whitlock, Esq., Exeter, Devonshire, at sea, on board the Royal Mail steamship *Para*, on June 4, aged 42.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made and the day of election (as far as known) are stated in succession.

Bolton Union.—Resident Assistant Medical Officer of Workhouse. Candidates must be registered to practise both medicine and surgery in England and Wales. Applications, accompanied by not more than three testimonials, to Simpson Cooper, Union Clerk, not later than June 24.

County Lunatic Asylum at Lancaster.—Resident Medical Superintendent. Applications, stating age, and qualifications, with references and testimonials, to Mr. Sharp, solicitor, Lancaster, on or before June 26.

Derby Amalgamated Friendly Societies' Medical Association.—Assistant-Surgeon. Candidates must be duly qualified and registered. Applications, with diplomas and original testimonials, to Mr. J. Bullivant, 5, Abbey-street, Derby.

Dewsbury Hospital.—House-Surgeon. Candidates must be qualified in medicine and surgery.

Hants County Lunatic Asylum, Knowle, Fareham.—Two Assistant Medical Officers, both of whom must be duly registered under the Medical Act. Applications, with testimonials, to Dr. Manley, the Superintendent, on or before July 10.

Hospital for Sick Children, 49, Great Ormond-street, W.C.—Third Assistant-Surgeon. Candidates must be Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to the Secretary, on or before June 29.

Hoxton House Asylum.—Assistant Medical Officer. Must be doubly qualified and registered. Applications, etc., to the Superintendent at the Asylum.

Lancaster Infirmary.—House-Surgeon. Applications, with testimonials, to the President, Lancaster Infirmary, on or before June 27.

Liverpool Dispensaries.—Assistant House-Surgeon. Candidates must be unmarried and duly qualified. Applications, with testimonials and registration papers, to William Lyster, Secretary, 34, Moorfields, Liverpool, on or before June 28.

Royal Asylum of St. Anne's Society's Schools, Streatham Hill, Surrey, and Aldersgate, E.C.—Honorary Consulting Physician to the Country Schools. Applications to be sent, on or before June 29, to the Office, 52, King William-street, E.C.

Seamen's Hospital, Greenwich, S.E.—House-Physician and House-Surgeon. The former must be a member or Licentiate of the Royal College of Physicians of London, or a Licentiate of the Company of Apothecaries; the latter must be a Fellow or Member of the Royal College of Surgeons of England. Candidates must be unmarried, and under the age of thirty years. Applications, with particulars of professional qualifications and references as to moral character, to Henry C. Burdett, on or before July 12.

St. Thomas's Hospital.—Resident Assistant-Physician and Resident Assistant-Surgeon. Candidates for the former appointment must be Members of the Royal College of Physicians or medical graduates of a University of the United Kingdom, and for the latter appointment Fellows of the Royal College of Surgeons of England. Applications, with testimonials, to the Treasurer, at the Counting-house, Westminster-bridge.

Stokesley Union.—Medical Officer. Applications, stating age, qualifications, and previous experience, to Thomas Sowerby, Clerk, on or before June 30.

Warwick County Lunatic and Idiot Asylum.—Junior Assistant Medical Officer. Candidates must be unmarried and under thirty years of age, and have a surgical and medical diploma. Applications, stating age and qualifications, to Dr. Parsey, Hatton Asylum, Warwick.

West London Hospital, Hammersmith.—Assistant-Surgeon. Candidates must be Fellows of one of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and not practising midwifery and pharmacy. Applications, with testimonials, to T. Alexander, Secretary, on or before June 24.

West Sussex, East Hants, and Chichester General Infirmary and Dispensary.—House-Surgeon. Applications, with testimonials, to H. Cotton, House-Surgeon and Secretary.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bury Union.—Mr. Thos. Carruthers has resigned the First Tottington District; area 6511; population 15,303; salary £50 per annum.

Wells Union.—Mr. Thos. Markley has resigned the Fourth District; area 16,158; population 5504; salary £80 per annum.

APPOINTMENTS.

Crickhowell Union.—Nicholas E. Atkin, L.K. & Q.C.P., L.R.C.S. Ire., to the Hill District.

Epping Union.—Andrew D. Madden, L.R.C.S. Ire., L.A.H. Dub., to the Harlow District.

Havant Union.—Wm. Bull, F.R.C.S. Edin., L.S.A. Lond., to the Third District.

Leicester Union.—Wm. A. Cox, M.B. Edin., L.R.C.P. Lond., M.R.C.S. Eng., to the Fifth District.

Manchester Township.—Octavius Dean, M.R.C.S. Eng., L.S.A., to the St. Andrew and St. Jude District.

Smallburgh Union.—James Chapman, L.F.P. & S. Glasg., L.S.A. Lond., to the Ludham District.

The annual Harveian Oration will be delivered at the Royal College of Physicians on Monday next, the 26th inst., by Sir William Jenner, Bart.; and on the 28th inst. the President and Fellows will entertain the company at a *conversazione*.

Professor Leyden.—The call of Prof. Leyden from Strasburg as the successor to Traube's clinical chair may now be regarded as decided upon, and has been received with the greatest satisfaction at Berlin. Prof. Nothnägel, of Jena, will, it is said, be called to fill his chair at Strasburg.—*Deutsche Med. Woch.*, June 3.

Chloral Baths in Variola.—In confluent variola, when the epidermis by becoming detached in masses leaves the dermis exposed, Dr. Dujardin-Beaumetz has derived good results from the use of chloral baths—the quantity of chloral employed not having exceeded twenty grammes (five drachms) per bath. Not only do the patients become disinfected, but cicatrisation is expedited.—*Union Méd.*, June 13.

Ergot in Chronic Uterine Catarrh.—As the operation of ergot given internally is very tedious, and its hypodermic injection is attended with difficulties if private practice, Dr. Goreleitschenko has tried the effect of penciling the canal of the cervix uteri with solution of ergot (ergotin, two scruples; glycerine and distilled water, of each two drachms), leaving the pencil within the canal from one to three minutes. In this way he has treated twenty-nine cases of chronic metritis attended with chronic catarrh. In twenty-two of these the discharge ceased, the swollen state of the mucous membrane disappearing, and the uterus itself being smaller and firmer. The subjective symptoms also ceased, and regular menstruation ensued. In the other seven cases the improvement which ensued was soon followed by relapse, the uterus in these cases having undergone more advanced alterations.—*St. Petersburg Med. Woch.*, June 3.

ROYAL COLLEGE OF SURGEONS.—Professor Turner, F.R.S., who commenced his annual course of lectures on the Comparative Anatomy of the Placenta on Monday last, will bring them to a close this day (Friday), when he resigns the chair he has so ably filled. The subject of his lecture this day will be "The Human Placenta; General Morphological Conclusions; Physiological Conclusions; and the Placenta in its relations to Classification." A microscopic demonstration of the structures described will be given after each lecture.

PROFESSOR VON BAER.—This father of transcendental anatomy and embryology, who, as many of our readers are doubtless unaware, is still living, has just addressed to the Paris Academy of Science a letter couched in the warmest terms of deep acknowledgment for the honour done to him by electing him a Foreign Associate. He regrets that his advanced age (eighty-four), and the fact of his being the subject of cataract, preclude him from following, as heretofore, the anatomical studies which have rendered his name so famous. For these reasons, indeed, he has retired from St. Petersburg to Dorpat, where he now lives in a state of almost absolute seclusion. —*L'Institut*, June 14.

THE MEDICAL DEFENCE ASSOCIATION IN THE NORTH. —A meeting of local medical practitioners was held recently at Newcastle-on-Tyne, when it was resolved to form a branch of the Defence Association for that town and neighbourhood, to be called the "North of England Branch." The leading medical men in the town have joined the movement, and the following gentlemen have been elected officers of the branch, viz.:—*President:* Dennis Embleton, M.D. *Vice-Presidents:* G. H. Philipson, M.D.; Byrom Bramwell, M.D.; G. Y. Heath, M.D.; J. Russell, M.R.C.S.; W. C. Arnison, M.D.; and Luke Armstrong, M.D. *Committee:* J. Hawthorn, M.R.C.S.; S. McBean, L.R.C.P. Ed.; A. Maclachlan, M.B.; A. Bell, M.R.C.S.; G. H. Hume, M.D.; F. Newcombe, M.D.; B. Barkus, M.D.; W. A. I'Anson, M.R.C.S.; R. H. Wilson, M.D.; R. Banning, M.D.; and G. Douglas, M.D. Mr. R. Clark Newton, L.M., C.M., M.R.C.S., has kindly consented to discharge the duties of honorary secretary and treasurer.

"MAITRES DES CONFÉRENCES" OF THE FRENCH FACULTIES.—Among the projects for the amelioration of the higher instruction which the Minister of Public Instruction is desirous of putting into force, the following may be mentioned. M. Waddington wishes to establish a system of teaching in France conducted by *maitres des conférences* in the Faculties of Letters, Science, Law, and Medicine. These officials will be comparable with the *privat-docenten* of the German universities, except that while these latter are directly paid by the fees of the students, in France, in consequence of the prevalence of the system of payment by inscription, the *maitres* will be paid 2200 francs annually by the State. It is intended to commence next year by the appointment of seventy, and especially in the provincial cities, which are to be constituted scientific centres—as Lyons, Bordeaux, Lille, Nantes, etc. The *maitres* will be chosen by the Minister, with the advice of the Faculty, from among *professeurs agrégés* and other doctors.—*Gaz. Hebd.*, June 16.

ROME AND NAPLES.—The healthiness of Rome is a subject which has been somewhat ventilated in this country lately, and which appears to be now very properly attracting the attention of the medical profession there. The Medical Academy of Rome held an important meeting on the 30th ult., to vindicate the health of the city. Drs. Lanzi and Terrigi read papers on the results of minute analyses of air and other sanitary conditions in the central and suburban quarters, and maintained that Rome, during spring and winter, ranks with the healthiest of Italian cities, and is not only innocuous, but beneficial to invalids. The centre of the city remains healthy in summer and autumn, but the suburban quarters, exposed to the Campagna, are then undoubtedly insalubrious. The climate of Rome is gradually improving as the vineyards are built over and drainage extends. Considerable discussion followed the reading of these papers. Dr. Pantaleoni urged that even in summer excavating and drainage works did not, as in virgin soils, produce malaria. Dr. Balestra condemned the loose classification of fevers in the weekly health returns. These, if correctly read, would show the mean mortality did not exceed 24 per 1000. Dr. Ratti exposed the many fallacies in the health returns; *inter alia*, the numerous relapsing cases which appeared as fresh ones when re-admitted to hospital. The debate is to be resumed on the next meeting of the Academy. Regarding the sanitary condition of Naples, a correspondent writing from thence on the 23rd ult. states:—"There is a lamentable insufficiency of good water, the sewerage is as bad as it can be, and the habits of the *bassa classé* are indescribably foul. Still, after all these admissions, travellers have in too many cases to blame themselves for maladies which have been produced by a total disregard of the very different conditions of climate on which they have entered, and the different mode of life imposed upon them. Were proper attention paid to these points there would be no panic about a residence in either Rome or Naples. There is a vast deal to be done to render the sanitary conditions of Naples what they ought to be, and it is satisfactory to state that a deputation of the inhabitants will leave this city to-morrow for Rome, to discuss with the Minister of the Interior the ways and means of introducing the necessary reforms; but there is surely no little injustice on the part of travellers in holding Southern Italy responsible for what are only the results, in many instances, of their ignorance of the climate, of their extreme imprudence and violation of the most elementary laws of health."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

P. D., Hampshire.—In a report on yellow fever, published in 1874 in the United States, it is shown that yellow fever has never appeared in any climate at the height of 2500 feet. In the island of Dominica, a hill-top not more than 1500 feet high is always healthy, even when the fever is epidemic at its base. In San Domingo similar observations have been made. The highest elevation at which yellow fever has occurred in the United States is 460 feet in Arkansas.

Lancelot W.—Leeuwenhoek, the celebrated microscopic investigator, was a native of Delft, born in 1623 of parents who were obscure and almost poor. De Graaf, the great anatomist, brought a notice of him before the Royal Society, and Leeuwenhoek transmitted at short intervals the results of his studies to London. His first communication was made in 1673; his last letter to the Society bears the date of 1717. He was then eighty-five years of age. He was enrolled a member, and his diploma was sent in a silver box on which the arms of the Society were engraved. He died at the age of nearly ninety.

F.R.C.S., Netley.—The annual festival of the Fellows of the College of Surgeons will take place as usual at the Albion Tavern, on the 6th prox., under the presidency of Mr. T. B. Curling, F.R.S. The annual election of Fellows into the Council of the College takes place the same day at two o'clock, when the President, Sir James Paget, will take the chair.

Mr. Thompson, R.N.—Professor William Turner, M.B., F.R.S. Edin., now delivering a course of lectures at the London College of Surgeons, is the Professor of Anatomy in the University of Edinburgh.

Æger.—"Hunyadi János" is the name not of a place but of a person, better known to the English as John Corvinus Hunniades, Regent of Hungary, a patriotic soldier and politician, who died in 1456. Why the name of this distinguished person was applied to a purgative water we know not.

C.B.—Joseph Hume, the well-known politician and economist (or, as others would call him, the Radical cheeseparing saver and skinner of flints), was apprenticed to a surgeon at Montrose, and graduated M.D. of Edinburgh in 1796. He was a man of unbounded energy and great accomplishments. He served as surgeon under the Honourable East India Company both by sea and land, was accomplished in the native languages of India, and discharged the duties of many civil offices with ability and integrity. On his return to England he sat in Parliament for the greater part of thirty years, and distinguished himself by attacking abuses of all kinds, and especially profuse expenditure of the public money.

Prescriber.—The "compound liquorice powder" of the B.P. consists of powdered senna, powdered liquorice, and sugar. But if a German preparation be intended, as it very often is, it contains in addition some sulphur and powdered fennel-seeds. Either is a good laxative.

MILK OF SULPHUR.

The pharmaceutists have, as we think, good right to be dissatisfied with the decision of the Birmingham magistrates, who convicted one of them of adulteration because he gave the old-fashioned milk of sulphur to a customer who asked for it. The old-fashioned milk of sulphur was prepared in such a way as to contain a large proportion of sulphate of lime. This became a popular remedy, and was bought and sold freely under the name "milk of sulphur," by grocers as well as by druggists. The compilers of the Pharmacopœia introduce a new preparation containing no sulphate of lime, and call it "precipitated sulphur." Query, is a chemist obliged to give the "precipitated sulphur" of the B.P. to a customer who asks for "milk of sulphur," the old name of the old true pharmacopœial preparation? The Birmingham magistrates say yes. We doubt it. Of

course if a man had asked for the new "precipitated sulphur," it would have been wrong to have given him the old "lac sulphuris," or if the former were prescribed, the latter must not be substituted. The confusion of names arising from the adoption of popular compounds into the Pharmacopœia, and the alteration or improvement of the formulæ by the compilers of the Pharmacopœia, may be sources of confusion through which the most honourable man may not see his way. Suppose that a person goes into a first-rate pharmaceutists and asks for "James's Fever Powder," will he be satisfied with "pulvis antimonialis," which is commonly considered the Pharmacopœial substitute for the old "James's"? Why, then, should one who asks for "milk of sulphur" put up with "sulphur precipitatum"? Let a man ask for "Baûme de Vie," for "Plummer's pill," for "paregoric," for "Griffith's mixture," for "pilulæ cocciæ," for "Sydenham's laudanum," or any other drug with a popular name, adopted and altered in the Pharmacopœia: he must either specify exactly what he means, or must leave the chemist to his own discretion. As to the sulphate of lime in the old "lac sulphuris," it cannot do much good, and we should think it well omitted in default of experiment to the contrary; but it clearly does no harm.

COMMUNICATIONS have been received from—

Mr. C. F. Maunder, London; Mr. C. Lowther Kemp, London; Mr Fletcher Beach, Clapton; Mr. J. W. Moore, Dublin; Dr. Sparks Montreux; Dr. H. Franklin Parsons, Goole; Dr. J. Sullivan, London; Mr. John Chiene, Edinburgh; Mr. John Chatto, London; Dr. George Johnson, London.

BOOKS AND PAMPHLETS RECEIVED—

Edward Fordham Flower, Horses and Harness—William Paul Swain, F.R.C.S., Surgical Emergencies—T. B. Curling, F.R.S, Observations on the Diseases of the Rectum—Report of the Committee appointed by the Town Council of Hastings to take into consideration the question of the Water-Supply to the Town, etc.—Handbook of Rural Sanitary Science, edited by Lory Marsb, M.D.—Lawson Tait, F.R.C.S., Preliminary Note on the Anatomy of the Umbilical Cord—J. Matthews Duncan, M.D., LL.D., On the Life of William Hunter: the Harveian Address, April 13, 1876—Christopher Heath, F.R.C.S., A Course of Operative Surgery, part ii.—Henry Beasley, The Book of Prescriptions—G. Overend Drewry, M.D., and H. C. Bartlett, Ph.D., F.C.S., Cup and Platter, or Notes on Food and its Effects—Dr. Dobell, The Appointment Dial—Henry Maccormac, M.D., Human Vivisection: Three Short Letters on Juridical Manslaughter—Borough of Portsmouth, Report of the Medical Officer of Health for 1875—F. Harwood Lescher, An Introduction to the Elements of Pharmacy—Our Medicine-Men: A Few Hints, by H. Strickland Constable—Thirty-sixth Annual Report for the Year ending December 31, 1875, of the East Sussex, Hastings, and St. Leonard's Infirmary—First Annual Report of the Committee for Clapton and Dareuth Asylums for Imbecile Children, December, 1875—Monthly Report on the Health and Meteorology of the Parish of Saint Marylebone—The First Annual Report of the state of the Lunatic Asylum for the County of Nottingham, 1875—Twenty-fourth Report of the Derbyshire County Lunatic Asylum—Borough of Sheffield, Annual Report of the Medical Officer of Health, 1875.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—Le Progrès Médical—Bulletin de l'Académie de Médecine—Pharmaceutical Journal—Iron—Wiener Medizinische Wochenschrift—Medical Examiner—The Louisville Medical News—The Shield—Nature—El Siglo Medico—The Star—The Students' Journal—The New Orleans Medical and Surgical Journal, May—Chicago Medical Journal and Examiner, June—The Sheffield Daily Telegraph—The Canada Lancet, June—Canada Medical and Surgical Journal, June—Essex Independent.

APPOINTMENTS FOR THE WEEK.

June 24. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

26. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

27. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Statistical Society, 7¾ p.m. General Anniversary Meeting.

28. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Opbthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.; Hospital for Women, 2 p.m.

30. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Opbthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.; Guy's, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 17, 1876.

BIRTHS.

Births of Boys, 1255; Girls, 1219; Total, 2474.
Average of 10 corresponding years 1866-75, 2098·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	658	622	1280
Average of the ten years 1866-75	657·1	582·5	1239·6
Average corrected to increased population ...	...	...	1326
Deaths of people aged 80 and upwards ...	...	...	45

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	12	4	1	10	2	...	1	3
North... ...	751729	1	5	11	2	14	1	3	2	5
Central ...	334369	...	2	..	...	...	...	1	1	3
East	639111	...	7	1	1	6	...	...	2	1
South	967692	3	14	12	4	12	1	5	3	4
Total	3254260	4	40	28	8	42	4	9	9	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·797 in.
Mean temperature	56·5°
Highest point of thermometer	79·2°
Lowest point of thermometer	40·1°
Mean dew-point temperature	47·7
General direction of wind	Variable.
Whole amount of rain in the week...	0·54 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 17, 1876, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1876.*	Persons to an Acre. (1876.)	Births Registered during the week ending June 17.	Deaths Registered during the week ending June 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3489428	46·3	2474	1280	79·2	40·1	56·5	13·61	0·54	1·37
Brighton	100632	42·7	40	30	71·6	41·0	55·3	12·95	0·22	0·56
Portsmouth ...	124867	27·8	81	53	...	...	...	...	...	...
Norwich	83430	11·2	47	32	76·0	42·0	55·1	12·84	0·70	1·78
Plymouth	72230	51·8	36	33	71·5	43·0	56·2	13·44	0·92	2·34
Bristol	199539	44·8	158	65	75·3	38·7	54·7	12·61	0·40	1·02
Wolverhampton ...	72549	21·4	42	38	75·7	40·4	54·6	12·56	0·58	1·47
Birmingham ...	371839	44·3	335	134	72·8	43·2	54·5	12·50	0·47	1·19
Leicester	113581	35·5	95	33	76·5	37·8	55·8	13·23	1·10	2·79
Nottingham ...	93627	46·9	83	40	79·3	36·5	55·6	13·12	0·47	1·19
Liverpool	521544	100·1	387	273	65·1	47·0	53·5	11·95	0·43	1·09
Manchester ...	357917	83·4	338	175	73·8	40·0	56·1	13·39	0·39	0·99
Salford	138425	26·8	166	84	70·7	38·1	52·3	11·28	0·37	0·94
Oldham	88609	19·0	86	39	...	...	...	...	...	...
Bradford	173723	24·1	137	54	70·0	42·4	54·6	12·56	0·22	0·56
Leeds	291580	13·5	230	143	75·0	40·0	55·2	12·89	0·35	0·89
Sheffield	274914	14·0	199	116	71·5	38·0	55·6	13·12	0·49	1·24
Hull	136933	37·7	116	51	75·0	39·0	56·3	13·50	0·96	2·44
Sunderland ...	108343	32·8	89	36	72·0	45·0	56·0	13·33	0·07	0·18
Newcastle-on-Tyne	139929	26·1	117	62	68·0	40·0	...	...	0·00	0·00
Edinburgh	215146	51·3	137	82	74·0	40·5	55·0	12·78	...	...
Glasgow	545144	90·4	419	215	64·8	45·4	54·3	12·39	0·73	1·85
Dublin	314666	31·3	†175	†146	...	...	...	...	...	...
Total of 23 Towns in United Kingdm	8028595	37·7	5987	3212	79·3	36·5	55·1	12·84	0·50	1·27

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·80 in. The highest was 30·05 in. at the beginning of the week, and the lowest 29·62 in. on Thursday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1876 by the addition of five years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

† The usual return from Dublin has not been received; an average of the numbers in the four previous weeks has been inserted in order to make up a total for the twenty-three towns of the United Kingdom.

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